Risk and Capital Management

– Information according to Pillar 3

2017

Handelsbanken

This is Handelsbanken

Handelsbanken has a decentralised way of working and a strong local presence. The Bank has a nationwide branch network in Sweden, the UK, Denmark, Finland, Norway and the Netherlands. The Bank regards these countries as its home markets. Handelsbanken was founded in 1871 and has operations in more than 20 countries.

More satisfied customers than the sector average in all six of our home markets.*

146 years of availability.

More than 800 branches in our six home markets.

46 years running with better profitability than the average of peer banks in home markets.

Svenska Handelsbanken AB (publ)
Corporate identity no.: 502007-7862
Registered office: Stockholm
handelsbanken.com

This report is also available in Swedish. Every care has been taken in this translation into English. In the event of discrepancies, the Swedish original will supersede the English version.

* According to EPSI/SKI (Swedish Quality Index). Since SKI's surveys began in 1989, Handelsbanken has had the most satisfied private customers of the four major Swedish banks: Handelsbanken, Nordea, SEB and Swedbank.

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Read more on our website
Handelsbanken's Annual Report and interim reports can be downloaded from handelsbanken.se/ireng. Information concerning Risk and Capital Management pursuant to Pillar 3, relating to 2007 onwards, is also available there.

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

ARTICLE IN CRR	Description	Reference in Risk and Capital Management – 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 Management – 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	
3	Requirement to have a formal policy to comply with the disclosure requirements	Section: Signatures of the CEO, CFO and CRO	
4	Upon request, explanations of rating decisions to SMEs or other corporate applicants for loans	Can be provided upon request	
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Article 433	**Frequency of disclosure**		
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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 Management – Information according to Pillar 3, this table, and in the text where applicable	Handelsbanken's Annual Report and interim reports
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1 a	Strategies and processes to manage the risks	Sections: Risk management – Risk strategy and Risk management – Resilient risk management; disclosures concerning risk strategy and risk management in the sections on Credit risk, Credit risk – Counterparty risks, Market risk, Funding and liquidity risk, Operational risk, Compliance risk, Risk in the remuneration system and Risk in the insurance operations	
1 b	Structure and organisation of the risk management organisation including its authority and statutes	Section: Risk management – Risk organisation; disclosures concerning the risk organisation in the sections on Credit risk, Credit risk – Counterparty risks, Market risk, Funding and liquidity risk, Operational risk, Compliance risk, Risk in the remuneration system and Risk in the insurance operations	
1 c	Scope and nature of risk reporting and measurement systems	Section: Risk management – Reporting and monitoring the risk and capital situation; disclosures concerning risk measurement in the sections on Credit risk, Credit risk – Counterparty risks, Market risk, Funding and liquidity risk, Operational risk, Compliance risk, Risk in the remuneration system and Risk in the insurance operations	
1 d	Policies for hedging and mitigating risk	Disclosures in the sections on Credit risk, Credit risk – Counterparty risks, Market risk, Funding and liquidity risk, Operational risk, Compliance risk, Risk in the remuneration system and Risk in the insurance operations	
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	
1 f	Risk statement with overall risk profile	Section: Risk management – The Board's risk declaration and risk statement	
2 a–c	Corporate governance disclosures		Pages 51, 52, 60 and 61 in Handelsbanken's Corporate Governance Report which are part of the administration report in Handelsbanken's Annual Report
2 d	Whether or not the institution has set up a separate risk committee		Pages 52 and 53 in Handelsbanken's Corporate Governance Report which are part of the administration report in Handelsbanken's Annual Report
2 e	Description of the information flow on risk to the management body	Sections: Risk management – Risk organisation and Risk management – Reporting and monitoring the risk and capital situation	Pages 48, 49, 52 and 53 in Handelsbanken's Corporate Governance Report which are part of the administration report in Handelsbanken's Annual Report

ARTICLE IN CRR	Description	Reference in Risk and Capital Management – Information according to Pillar 3	Reference in Handelsbanken's Annual Report and interim reports or on the Handelsbanken website
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b i–iv	Outline of the differences in the basis of consolidation for accounting and prudential purposes	Sections: Scope of application and Market risk – Market risk at Handelsbanken – Prudent valuation	
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	
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1 b	Description of the main features of capital instruments		Page 149 of note G50 in Handelsbanken's Annual Report
1 c	Full terms and conditions of capital instruments	Tables TB36–TB38	
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1 e	Description of restrictions applied to the calculation of own funds	Section: Own funds and capital requirement – Own funds	
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c	Capital requirements for credit risk calculated using the standardised approach	Section: Credit risk – Capital requirements for credit risk; tables 41 and 90 (EU OV1)	
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f	Methods for measures of exposure value	Section: Credit risk – Counterparty risks	
g	Notional value of credit derivative hedges and the distribution of current credit exposure by types of credit exposure	Table TB30 (EU CCR6)	
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ARTICLE IN CRR	Description	Reference in Risk and Capital Management – Information according to Pillar 3	Reference in Handelsbanken's Annual Report and interim reports or on the Handelsbanken website
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ARTICLE IN CRR	Description	Reference in Risk and Capital Management – Information according to Pillar 3	Reference in Handelsbanken's Annual Report and interim reports or on the Handelsbanken website
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g	Actual specific credit risk adjustments in preceding period	Section: Credit risk – Impairments and past due loans; table 24 (EU CR2-A)	
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b	Scope of permission by the competent authority	Not applicable	
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Introduction

Handelsbanken works on the basis of a well-tested business model which has been unchanged for more than 40 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. Lending in the Bank's branch operations gives rise to credit risks; the Bank strives to limit all other risks as much as possible.

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. As of 19 March 2017, a countercyclical buffer of 2.0 per cent applies in Sweden. In Norway, the buffer was 1.5 per cent from the end of Q2 2016 and was raised to 2.0 per cent as of 31 December 2017. Also, in the UK a buffer requirement of 0.5 per cent will take effect at 27 June 2018 and will be raised to 1.0 per cent as of 28 November 2018. 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 requirement 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.

In the framework for Pillar 2, a risk weight floor of 25 per cent applies to Swedish mortgage loans, of which 10 percentage points are an extra capital charge for systemic risk. The risk weight floor means that banks must have buffer capital in Pillar 2 for Swedish mortgage loans corresponding to the difference between the actual risk weight in Pillar 1, which is based on the Bank's internal models, and the risk weight floor in Pillar 2. In addition, a risk weight floor of 22 per cent applies to Norwegian mortgage loans. Finnish mortgage loans are subject to a risk weight floor of 15 per cent as of 2018.

The Swedish Financial Supervisory Authority has stated that the extra capital charge in the form of a risk weight floor for mortgage loans in Pillar 2 is intended partly to manage risks which are not fully reflected in the historical data on which the banks' internal models are based, and partly to manage the systemic risk which may result from the negative impact on consumption of households' increased debt, such as in the event of a large interest rate increase. 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 as well as the increased risk weight floor for Swedish mortgage loans, from 15 to 25 per cent.

The Swedish Financial 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 requirement. 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

Since 2013, the liquidity coverage ratio (LCR) has been a binding requirement for Swedish banks, and Handelsbanken has reported it according to the Swedish Financial Supervisory Authority's definition. This 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 ratio must be more than 100 per cent. The requirement has applied to LCR at aggregate level and separately for US dollars and euros. As of 1 October 2015, the European Commission's delegated act contains a minimum European requirement for LCR. This minimum requirement, which applies at aggregate level, was 80 per cent in 2017, but is 100 per cent as of 1 January 2018, when the delegated act became fully implemented. In conjunction with this, the Swedish Financial Supervisory Authority's directives and requirements for the LCR were repealed. The Authority has announced that in the future they intend to exercise supervision of LCR in individual currencies within the framework of the supervisory review and evaluation process in Pillar 2.

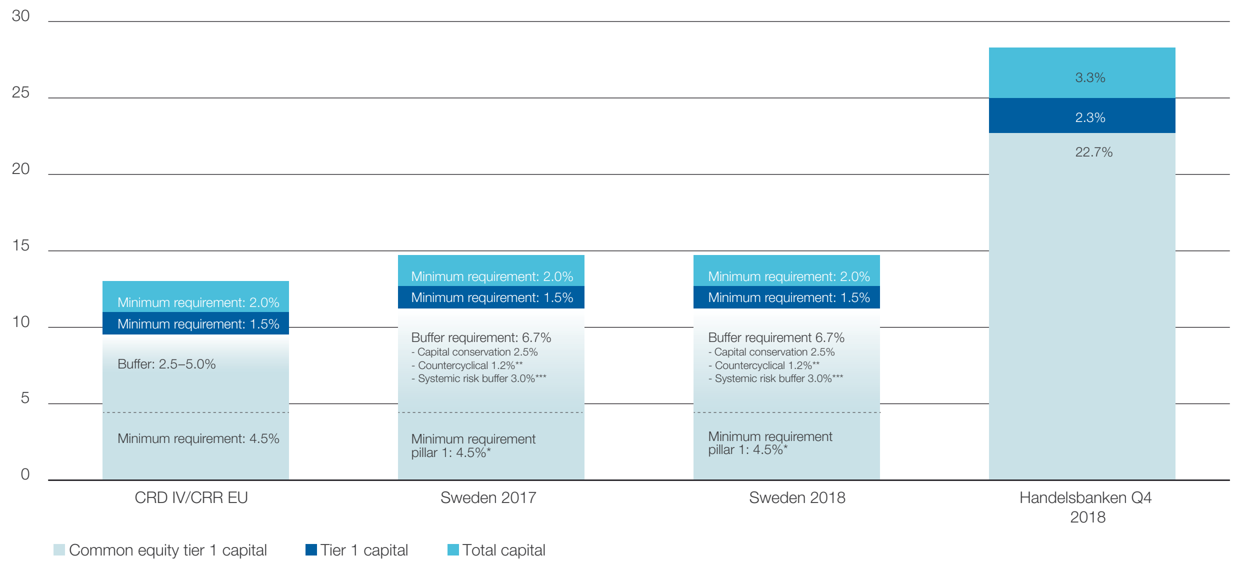
Minimum requirements for the net stable funding ratio (NSFR) – the structural liquidity measure that is the ratio between available stable funding and the stable funding required – are expected to be introduced in the EU in 2019 at the earliest.

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), which took effect on 1 February 2016. 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 to be established by the resolution authority – in Sweden, the Swedish National Debt Office – in connection with the preparation of a resolution plan (see also the Own funds and capital requirement section).

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



* Pillar 2 includes risk weight floors on mortgage lending in Sweden and Norway, an extra capital charge for additional systemic risk of 2% as well as institution-specific capital charges for concentration risk, interest rate risk in the non-trading book, and pension risk.

** Based on the buffer requirement in Sweden and Norway.

*** 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 counterparties 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 IRB 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 delays in the legal process may delay implementation.

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 banks' 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 will apply from 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 European Banking Authority (EBA) will introduce guidelines and technical standards[1] 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 go 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 LGD and credit conversion factor.

Insurance operations

Since 1 January 2016, Handelsbanken Liv has applied transitional provisions in the Swedish Insurance Business Act. This means that Handelsbanken Liv is covered by two regulations: the older provisions in the Swedish Insurance Business Act concerning the occupational pension business (Solvency I regulations), and the Swedish Insurance Business Act with the additions and amendments effective as of 1 January 2016 (Solvency II regulations) concerning other life insurance operations. As a result of the heterogeneous operations, the solvency capital requirement and own funds are calculated according to transitional provisions using the old Solvency I rules for occupational pensions, while the solvency capital requirement and own funds for other life insurance are calculated according to the new Solvency II rules. Handelsbanken Liv's publication, *Gemensam rapport om solvens och finansiell ställning* (in Swedish only), provides additional information and is available at handelsbanken.se.

BREXIT

Handelsbanken conducts its branch operations in the United Kingdom as a branch, in the same way as in the Bank's other home markets. When the UK leaves the EU, the Bank will most likely need to conduct its British operations as a subsidiary of the Swedish parent company. Thus, for some time the Bank has been preparing the formation of a UK subsidiary to which the branch's assets and commitments can be moved if it is decided to form a subsidiary. These preparations became more intensive in 2017 so that, if the decision to form a subsidiary is taken, this will be carried out and the operations will be transferred at the latest on the date the UK leaves the EU. The subsidiary will be under the supervision of the UK financial supervisory authority, the Prudential Regulation Authority (PRA). One area still being investigated is which methods to apply for capital adequacy for UK exposures. It is therefore still too early to say exactly which capital requirements will be allocated to a UK subsidiary.

The preparations taken by the Bank include developing new IT systems so as to adapt to the reporting requirements as a result of local supervision and also supplementing skills and staff in the UK as required for a subsidiary. Even if the operations are transferred to a subsidiary, the UK branches will continue to work according to the existing business model which the Bank applies on all its home markets. The Bank's assessment is that the investments now being made will in the future result in better conditions for cost-effective and expanding operations in the UK.

[1] EBA/RTS/2016/03, EBA/RTS/2016/06, EBA/GL/2016/07, EBA/CP/2016/21 and CP/EBA/2017/02.

Risk management

Handelsbanken's goal is to have higher profitability than the average of peer banks in its home markets and for the Bank to generate good, stable value growth, regardless of the business cycle. High profitability depends on low funding costs and low loan losses, among other conditions. Well-functioning risk management has helped Handelsbanken's business model stay intact during financial crises and recessions, proving very resistant to other external strains.

RISK TOLERANCE

Handelsbanken has a low risk tolerance. Credit risks arise as part of lending in branch operations. The Bank's goal is always that no credit will lead to loss. This approach completely determines the branches' granting of credit and work with their credit portfolios. The Bank is a relationship bank which focuses on customers with a good repayment capacity and 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 connection with the Bank's funding and liquidity management, in its role as a market maker and 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.

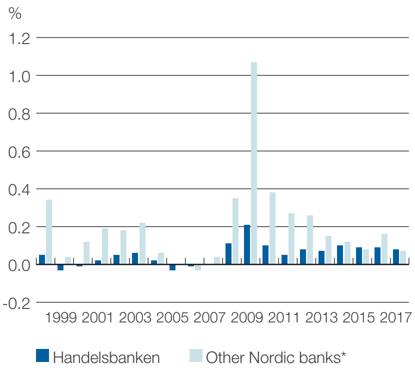
RISK STRATEGY

Handelsbanken offers a wide range of different banking and insurance products. These entail various risks that are systematically identified, measured and managed 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 remuneration 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. Employees with the authority to make business decisions which entail risk for the Bank can only receive fixed remuneration with no variable components. 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.

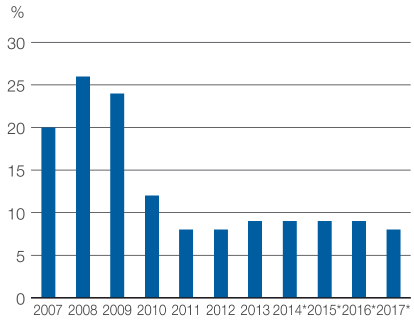
Lending has a strong local presence, in which close customer relationships and local knowledge promote low credit risk. In addition, the Group must be well-capitalised at all times in relation to the risks in the operations and hold liquid assets so that it can always meet its payment commitments when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

Figure 2 Loan losses as a percentage of lending 1998–2017



* 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 2007–2017

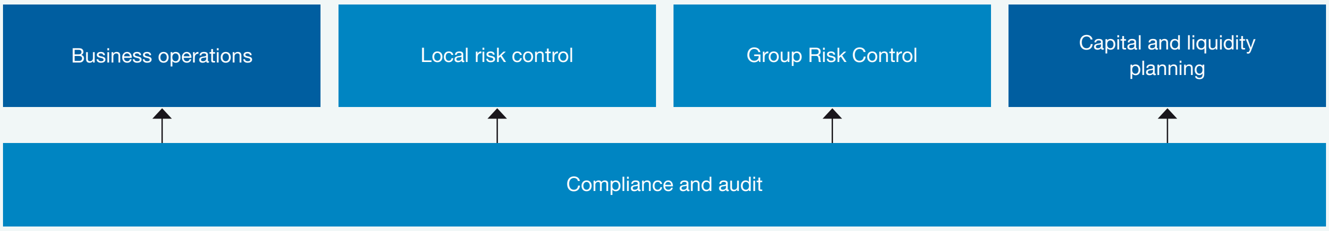


Source: Annual reports.
* Excluding non-recurring items.

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, exchange rate 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, currency, 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 in each country where the Bank has operations, at each regional bank, at central main departments and in subsidiaries. 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 products and services, IT systems, and essential processes and must evaluate 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 comply with the Bank's low tolerance of risks 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 audit

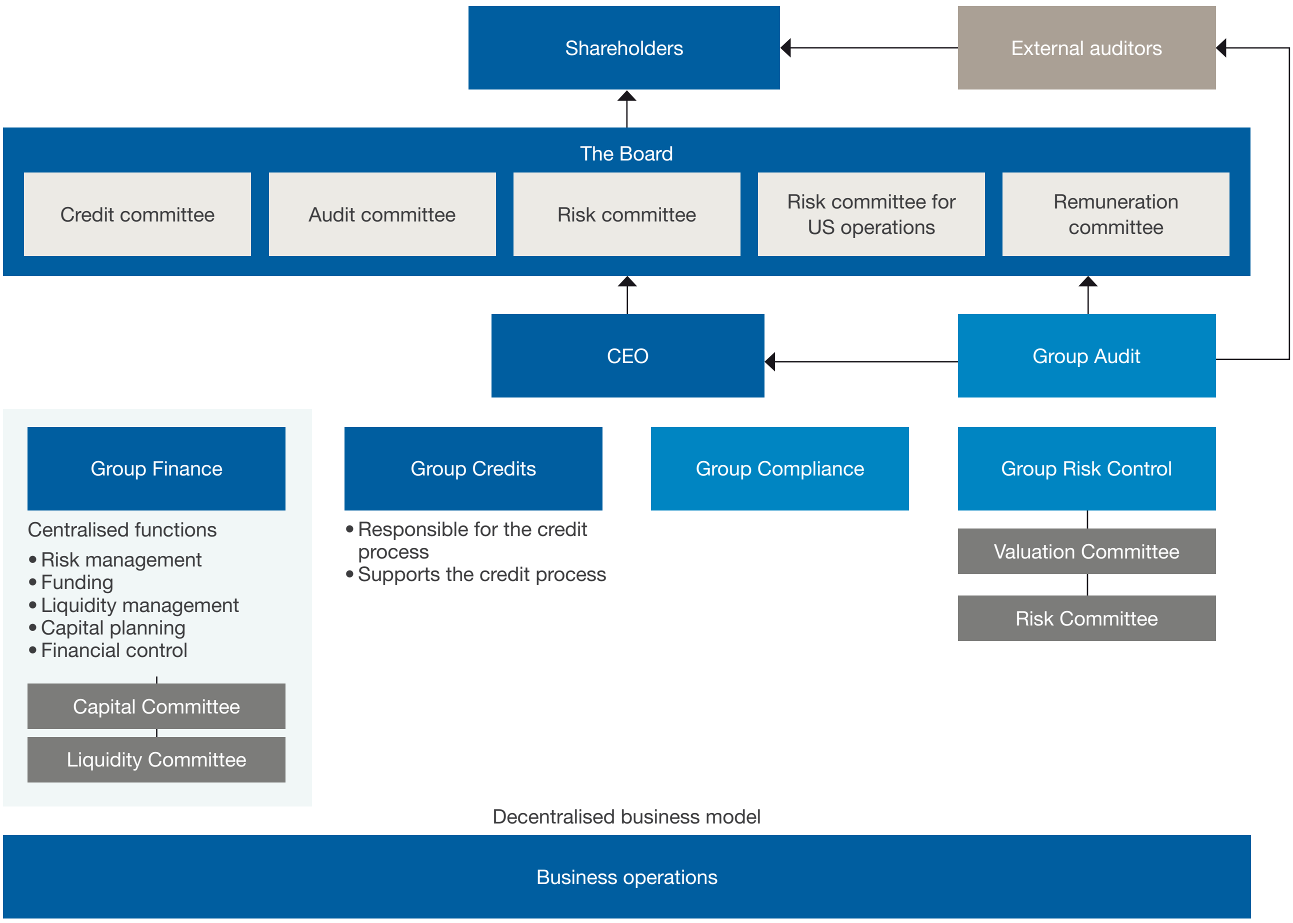
In addition to the elements described above, operations are examined by compliance, at central, business area and subsidiary level, and also by the internal and external auditors. The Compliance function is responsible for ensuring that laws, regulations and internal rules, as well as accepted business practices and norms, are complied with in Handelsbanken's operations. Actions to ensure compliance are one part of internal control, and responsibility for ensuring compliance rests not only on the compliance function but also on product owners, managers and employees in the Handelsbanken Group.

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 good risk management and 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.

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 new market funding. Operations can be maintained for a considerable period of time even in an extreme situation when the foreign exchange markets are closed.

Figure 6 Handelsbanken's control and risk organisation



The Bank's capital situation continued to grow stronger during the year, and its earnings have been stable. Coupled with low loan losses, this has contributed to the strong position.

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

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 several subcommittees which prepare matters to be decided by the Board and one decision-making committee. These bodies comprise the credit committee (consisting of the Group Chief Executive and Chief Credit Officer as well as Board members), the Board's risk committee, the audit committee, the risk committee for US operations, and the remuneration committee. The Bank also has the following internal committees to advise management: Risk Committee, Liquidity Committee, Capital Committee and Valuation Committee.

The Board establishes rules for delegating credit decisions. The decision structure is shown in figure 7, which also shows the limit amounts established for each decision level. The Board determines the total market and liquidity risk 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 planning 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 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. 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 the overall assessment of compliance risks and reports to the CEO and to 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, when applicable, 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 risk tolerance stated by the Board. The Group risk report is drafted in accordance with the Board's Policy for independent risk control.

The Risk Committee, chaired by the Bank's CRO, acts in an advisory capacity to the CEO and CFO and met on ten occasions during 2017. 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, compliance risks and risks in the insurance operations. Other types of risk are commented on where necessary. In addition, limit utilisation for financial risks is followed up for the Group as a whole. The CRO reports the Risk Committee's analyses and observations to the Bank's CEO. 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, where it reviews 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 which have occurred on a monthly basis to the Risk Committee 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 2017, loan losses were 0.08 per cent (0.09) 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 (20.2 per cent, according to a communication from the Authority after Q3 2017), and that the ratio of available financial resources (AFR) to EC must exceed 120 per cent. At the end of 2017, the common equity tier 1 ratio was 22.7 per cent (25.1) and the AFR/EC ratio was 251 per cent (269). 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.

CREDIT RISK STRATEGY

At Handelsbanken, the credit process is based on a conviction that a decentralised organisation with local presence ensures high quality in credit decisions. The Bank is a relationship bank where the branches maintain regular contact with the customer, which gives the branch an in-depth knowledge of each individual customer and a continually updated picture of the customer's financial situation.

Rather than being a mass market bank, Handelsbanken is selective in its choice of customers, which means it seeks customers with high creditworthiness. The quality requirement is never neglected in favour of higher credit volumes or to achieve higher returns. The Bank also avoids participating in financing where there are complex customer constellations or complex transactions which are difficult to understand.

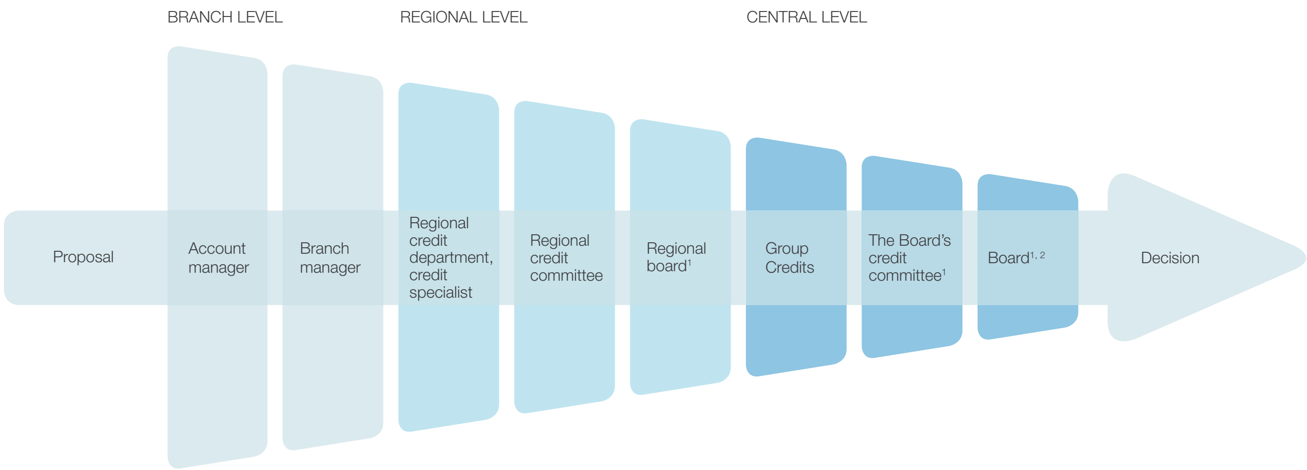
When Handelsbanken assesses the credit risk of a specific customer, the assessment must start with the borrower's repayment capacity. According to the Bank's credit policy, weak repayment capacity can never be accepted on the grounds that good collateral has been offered to the Bank. Collateral may, however, substantially reduce the Bank's loss if the borrower cannot fulfil his or her obligations. Credits must therefore normally be adequately secured.

The local branch's close contact with its customers also enables the branch to quickly identify any problems and take action. In many cases, this means that the Bank can take action more rapidly than would have been possible with a more centralised management of problem loans. The branch also has full financial responsibility for granting credits, and therefore addresses problems that arise when a customer has payment difficulties, and also bears any loan losses. If necessary, the local branch obtains support from the regional head office and central departments. The Bank's way of working means that all employees whose work involves transactions linked to credit risk acquire a solid and well-founded approach to this type of risk. This approach forms an important part of the Bank's culture. The work method and approach described are important reasons for the Bank reporting very low loan losses over a long period.

CREDIT ORGANISATION

In Handelsbanken's decentralised organisation, each branch responsible for customers has total credit responsibility. Customer and credit responsibility lies with the branch manager or with the employees appointed by the manager at the local branch.

Figure 7 Credit process and decision levels at Handelsbanken



Breakdown of limit decisions³

	Branch level	Regional level	Central level
Proportion of number of limits	71%	27%	2%
Proportion of limit amount	12%	31%	57%

¹ The decision refers to the total amount of the credit limit with possible headroom for unsecured credits.
² Decides only if the case is assessed to be of special or general interest and decides on credits to Board members and certain executive officers.
³ Excluding sovereign and bank limits decided at central level.

In Handelsbanken's decentralised organisation, the documentation that forms the basis for credit decisions is always prepared by the branch responsible for the credit, regardless of whether the final decision is to be made at the branch, at regional level, in the Board's credit committee, or by the Board. Credit decision documentation includes general and financial information regarding the borrower and an assessment of their repayment capacity, loans and credit terms, as well as a valuation of collateral. For regional bank boards, the Board's credit committee and the Board, the credit decision refers to the total amount of the credit limit with possible headroom for unsecured credits.

For borrowers whose total loans exceed SEK 3 million, the credit decision is made in the form of a credit limit. In the case of loans to private individuals against collateral in a residential property, a credit limit is required for amounts exceeding SEK 6 million. For loans to housing co-operative associations against collateral in the residential property, a limit is required for amounts exceeding SEK 12 million.

Credit limits granted are usually valid for one year. When extending a credit limit, the decision procedure required is the same as for a new credit limit.

Branch managers and most branch staff have personal decision limits allowing them to decide on credits to the customers they are responsible for.

For decisions on larger credit limits, there are regional and central decision levels. Each additional level of decision adds credit expertise. Each decision level has the right to reject credit limits both within their own decision level and also credit limits which would otherwise have been decided at a higher level. All participants throughout the decision process, regardless of level, must be in agreement in order for a positive credit limit decision to be made. If there is the slightest doubt among any of the participants, the credit application is rejected. The largest credits have been reviewed by Group Credits and decided by the Board or the credit committee set up by the Board. However, no credit application may be processed in the Bank without the recommendation of the branch manager who is responsible for the credit.

The decision procedure for credits and credit limits is illustrated in figure 7. The figure also shows the percentage of credit limit decisions and amounts at the various decision levels.

In Handelsbanken's decentralised organisation, where a high proportion of the number of credit and credit limit decisions are made by individual branches, it is important that there is a well-functioning re-examination process to ensure that the decisions are high quality. The branch manager examines the quality of the staff's decisions, and the regional credit departments examine the quality of decisions made by branch managers.

The purpose of the quality review is to ensure that the Bank's credit policy and internal instructions are complied with, that credit quality is maintained, and that credit and credit limit decisions show that there is good credit judgement and a sound business approach. A corresponding examination of the quality is also performed for credit limit decisions made at higher levels in the Bank. Credit limits granted by regional credit committees and regional bank boards are examined by Group Credits, which also prepares and examines credit limits decided by the Board or the credit committee set up by the Board.

CREDIT PORTFOLIO

The Bank's credit portfolio is presented in this section based on the balance sheet item categories. The section on Capital requirements for credit risk presents the credit portfolio based on CRR.

Breakdown of the portfolio

Based on the consolidated balance sheet, credits are categorised as loans to the general public or loans to credit institutions, and off-balance-sheet items broken down by type of product. 'Exposure' refers to the sum of items on and off the balance sheet.

Handelsbanken strives to maintain its historically low level of loan losses compared to other banks, thus contributing to Handelsbanken's profitability target and retaining its sound financial position. In granting credits, the Bank never strives toward goals such as a predetermined volume or market share in particular sectors, but rather is selective when choosing its customers, and credit customers must be of high quality. The demands on quality must never be neglected in favour of achieving high credit volume. This is clearly stated in the Bank's credit policy, established each year by the Board.

Table 8 Group Credit risk exposures

Group Credit risk exposures SEK m	**2017**	**2016**
Loans to the public[1]	2 065 761	1 963 622
of which reverse repos	*6 607*	*7 493*
Loans to other credit institutions	20 250	31 347
of which reverse repos	*1 338*	*4 088*
Interest-bearing securities eligible as collateral with central banks	129 006	97 205
Bonds and other interest-bearing securities	49 601	63 909
Derivative instruments[2]	56 070	82 633
Contingent liabilities	75 666	78 530
of which guarantees, credits	*10 177*	*9 643*
of which guarantees, other	*57 878*	*63 108*
of which letters of credit	*7 611*	*5 779*
Other commitments	443 383	425 267
of which unutilised part of granted overdraft facilities	*131 121*	*128 967*
of which loan commitments	*290 643*	*272 729*
of which other	*21 619*	*23 571*
Total	**2 839 737**	**2 742 513**
Cash and balances with central banks	226 314	199 362
Other loans to central banks	38 920	25 527
Total	**3 104 971**	**2 967 402**

[1] SEK 377m (926) of this amount is loans which upon initial recognition were classified at fair value in the income statement.
[2] Refers to the total positive market values. Including legally viable netting agreements, the exposure is SEK 39,232m (61,990).

Table 9 Geographical breakdown

Geographical breakdown 2017	Loans						Off-balance-sheet commitments					
SEK m	Public	Credit institutions excl. central banks	Cash and balances with central banks	Other loans to central banks	Derivative instruments	Investments	Guarantees	Loan commit-ments	Unutilised part of granted overdraft facilities	Letters of credit	Other	Total
Sweden	1 315 476	15 007	82	6 683	55 580	149 317	21 071	152 957	89 381	4 364	17 912	1 827 830
UK	213 847	472	84 766	492	41	-	6 146	40 196	7 124	54	1 262	354 400
Norway	245 189	124	3 918	7 170	-	-	6 420	34 878	17 065	46	976	315 786
Denmark	98 470	27	2 150	24 199	22	11	6 809	16 526	7 433	823	1	156 471
Finland	126 741	36	84 925	-	33	0	4 863	23 405	7 758	272	177	248 210
The Netherlands	40 352	75	397	-	-	-	124	5 442	364	1	162	46 917
USA	4 528	2 499	48 025	-	379	28518	13152	10 328	387	1245	-	109 061
Germany	4 454	12	5	-	-	-	5 104	2 286	476	134	1 129	13 600
Poland	1 527	1	63	376	-	-	1 573	1	163	-	-	3 704
Other countries	15 177	1 997	1 983	-	15	761	2 793	4 624	970	672	-	28 992
Total	**2 065 761**	**20 250**	**226 314**	**38 920**	**56 070**	**178 607**	**68 055**	**290 643**	**131 121**	**7 611**	**21 619**	**3 104 971**

Geographical breakdown 2016	Loans						Off-balance-sheet commitments					
SEK m	Public	Credit institutions excl. central banks	Cash and balances with central banks	Other loans to central banks	Derivative instruments	Investments	Guarantees	Loan commit-ments	Unutilised part of granted overdraft facilities	Letters of credit	Other	Total
Sweden	1 245 654	23 161	145	4 821	81 275	127 946	23 989	136 579	85 583	2 874	15 038	1 747 065
UK	193 450	150	61 772	394	92	-	6 066	35 426	6 741	50	2 699	306 840
Norway	244 445	300	6 203	-	-	-	8 267	40 139	19 261	87	4 307	323 009
Denmark	95 540	27	120	20 269	31	11	4 930	13 780	7 662	613	3	142 986
Finland	122 534	25	98 710	-	149	-	4 506	18 977	7 179	216	190	252 486
The Netherlands	32 285	75	395	-	-	-	153	6 814	393	-	-	40 115
USA	5 283	5 495	30 386	-	958	32 421	15 795	13 208	476	1 392	-	105 414
Germany	4 567	61	159	-	-	-	3 497	1 558	644	146	1 326	11 958
Poland	3 016	6	25	43	-	-	1 482	1	139	-	8	4 720
Other countries	16 848	2 047	1 447	-	128	736	4 066	6 247	889	401	-	32 809
Total	**1 963 622**	**31 347**	**199 362**	**25 527**	**82 633**	**161 114**	**72 751**	**272 729**	**128 967**	**5 779**	**23 571**	**2 967 402**

Table 10 Loans to the public, breakdown by sector and counterparty type

Loans to the public, breakdown by sector and counterparty type	2017			2016		
SEK m	Loans before deduction of provisions	Provisions for probable loan losses	Loans after deduction of provisions	Loans before deduction of provisions	Provisions for probable loan losses	Loans after deduction of provisions
Private individuals	1 040 638	-710	1 039 928	982 640	-745	981 895
of which mortgage loans	*850 962*	*-39*	*850 923*	*800 092*	*-33*	*800 059*
of which other loans with property mortgages	*128 728*	*-133*	*128 595*	*120 121*	*-146*	*119 975*
of which other loans, private individuals	*60 948*	*-538*	*60 410*	*62 427*	*-566*	*61 861*
Housing co-operative associations	205 984	-18	205 966	187 016	-20	186 996
of which mortgage loans	*172 264*	*-11*	*172 253*	*156 835*	*-12*	*156 823*
Property management	565 190	-523	564 667	540 194	-691	539 503
Manufacturing	27 393	-471	26 922	27 633	-522	27 111
Retail	21 282	-201	21 081	21 947	-270	21 677
Hotel and restaurant	8 369	-35	8 334	8 516	-32	8 484
Passenger and goods transport by sea	8 499	-1 325	7 174	9 375	-1 244	8 131
Other transport and communication	16 088	-25	16 063	14 614	-36	14 578
Construction	20 216	-697	19 519	18 103	-161	17 942
Electricity, gas and water	22 040	-128	21 912	25 224	-39	25 185
Agriculture, hunting and forestry	13 064	-46	13 018	11 727	-31	11 696
Other services	22 208	-215	21 993	19 608	-113	19 495
Holding, investment, insurance companies, mutual funds etc.	67 805	-249	67 556	66 730	-316	66 414
Sovereigns and municipalities	13 611	0	13 611	15 891	0	15 891
Other corporate lending	18 533	-53	18 480	19 047	-75	18 972
Total loans to the public, before collective provision	**2 070 920**	**-4 696**	**2 066 224**	**1 968 265**	**-4 295**	**1 963 970**
Collective provisions for individually assessed loans			-463			-348
Total loans to the public			**2 065 761**			**1 963 622**

Table 11 Loans to the public after deduction of provisions, geographical breakdown by sector

Loans to the public after deduction of provisions, geographical breakdown by sector 2017 SEK m	**Sweden**	**UK**	**Norway**	**Denmark**	**Finland**	**The Netherlands**	**Other countries**	**Total**
Private individuals	772 051	65 741	89 200	59 039	37 527	10 464	5 906	1 039 928
of which mortgage loans	*729 891*	*0*	*59 430*	*41 686*	*19 916*	*0*	*0*	*850 923*
of which other loans with property mortgages	*8 374*	*61 108*	*17 653*	*13 520*	*12 628*	*10 120*	*5 192*	*128 595*
of which other loans, private individuals	*33 786*	*4 633*	*12 117*	*3 833*	*4 983*	*344*	*714*	*60 410*
Housing co-operative associations	165 061	0	17 694	890	22 321	0	0	205 966
Property management	244 295	125 504	104 219	20 297	37 298	27 628	5 426	564 667
Manufacturing	11 922	2 396	2 621	1 420	2 781	988	4 794	26 922
Retail	10 762	3 506	4 033	1 222	1 362	0	196	21 081
Hotel and restaurant	2 282	3 436	505	2 012	94	0	5	8 334
Passenger and goods transport by sea	3 179	9	1 957	158	1 871	0	0	7 174
Other transport and communication	9 063	1 548	3 601	436	1 106	292	17	16 063
Construction	8 336	2 730	7 315	339	758	0	41	19 519
Electricity, gas and water	8 284	305	4 994	61	7 844	197	227	21 912
Agriculture, hunting and forestry	11 458	822	70	66	52	0	550	13 018
Other services	11 467	4 389	3 757	837	1 531	0	12	21 993
Holding, investment, insurance companies, mutual funds etc.	48 371	1 922	1 192	7 974	3 345	0	4 752	67 556
Sovereigns and municipalities	4 612	0	247	153	8 599	0	0	13 611
Other corporate lending	4 522	1 556	3 954	3 593	309	784	3 762	18 480
Total loans to the public, before collective provision	**1 315 665**	**213 864**	**245 359**	**98 497**	**126 798**	**40 353**	**25 688**	**2 066 224**
Collective provisions for individually assessed loans	-189	-17	-170	-27	-57	-1	-2	-463
Total loans to the public	**1 315 476**	**213 847**	**245 189**	**98 470**	**126 741**	**40 352**	**25 686**	**2 065 761**

Loans to the public after deduction of provisions, geographical breakdown by sector 2016 SEK m	**Sweden**	**UK**	**Norway**	**Denmark**	**Finland**	**The Netherlands**	**Other countries**	**Total**
Private individuals	727 562	59 468	91 969	53 964	35 452	8 165	5 315	981 895
of which mortgage loans	*682 857*	*0*	*60 017*	*36 371*	*20 814*	*0*	*0*	*800 059*
of which other loans with property mortgages	*11 309*	*54 741*	*18 167*	*13 478*	*10 260*	*7 805*	*4 215*	*119 975*
of which other loans, private individuals	*33 396*	*4 727*	*13 785*	*4 115*	*4 378*	*360*	*1 100*	*61 861*
Housing co-operative associations	149 245	0	16 911	908	19 932	0	0	186 996
Property management	240 020	111 510	103 659	19 637	33 888	23 194	7 595	539 503
Manufacturing	11 966	2 764	2 680	1 481	3 086	2	5 132	27 111
Retail	10 604	3 686	3 728	1 362	1 215	0	1 082	21 677
Hotel and restaurant	2 217	3 137	141	1 846	97	0	1 046	8 484
Passenger and goods transport by sea	3 370	2	2 086	452	2 095	0	126	8 131
Other transport and communication	9 364	1 194	2 135	360	1 201	304	20	14 578
Construction	7 129	2 824	6 468	497	989	0	35	17 942
Electricity, gas and water	8 841	243	6 227	66	8 988	192	628	25 185
Agriculture, hunting and forestry	10 723	673	57	97	132	0	14	11 696
Other services	10 165	4 042	2 659	1 283	1 332	0	14	19 495
Holding, investment, insurance companies, mutual funds etc.	45 508	2 212	1 200	9 325	3 287	29	4 853	66 414
Sovereigns and municipalities	4 149	0	254	629	10 464	395	0	15 891
Other corporate lending	4 932	1 733	4 373	3 656	409	4	3 865	18 972
Total loans to the public, before collective provision	**1 245 795**	**193 488**	**244 547**	**95 563**	**122 567**	**32 285**	**29 725**	**1 963 970**
Collective provisions for individually assessed loans	-139	-39	-100	-25	-33	-1	-11	-348
Total loans to the public	**1 245 656**	**193 449**	**244 447**	**95 538**	**122 534**	**32 284**	**29 714**	**1 963 622**

Collateral

Since collateral is not generally utilised until a borrower faces serious repayment difficulties, the valuation of collateral focuses on the expected value in the case of a sale in unfavourable circumstances in connection with insolvency. The value of certain assets may change considerably in an insolvency situation leading to a forced sale.

For unsecured long-term credit commitments to companies, the Bank often enters into an agreement with the customer on special credit terms which allow the Bank to renegotiate or terminate the loan in the case of unfavourable performance.

A large part of lending to credit institutions consists of reverse repos. A reverse repo is a repurchase transaction in which the Bank buys interest-bearing securities or equities with a special agreement that the security will be resold to the seller at a specific price on a specific date. Handelsbanken regards reverse repos as secured lending.

In special circumstances, the Bank may buy credit derivatives or financial guarantees to hedge the credit risk in claims, but this is not part of the Bank's normal lending process. In the UK, a large part of lending is covered by mortgages on real property. The biggest category of mortgages on real property is housing mortgages.

Table 12 Credit risk exposure on the balance sheet, broken down by collateral

Credit risk exposure on the balance sheet, broken down by collateral SEK m	**2017**	**2016**
Residential property[1]	1 411 424	1 308 242
of which private individuals	*979 296*	*920 344*
Other property	301 061	307 334
Sovereigns, municipalities and county councils[2]	336 624	296 676
Guarantees as for own debt[3]	23 236	10 844
Financial collateral	20 130	22 858
Collateral in assets	24 896	24 343
Other collateral	17 703	19 093
Unsecured	217 755	232 032
Total credit risk exposure on the balance sheet	**2 352 829**	**2 221 422**

[1] Including housing co-operative apartments.
[2] Refers to direct sovereign exposures and government guarantees.
[3] Does not include government guarantees.

Table 13 Loans to the public, broken down by collateral

Loans to the public, broken down by collateral SEK m	**2017**	**2016**
Residential property[1]	1 411 424	1 308 242
of which private individuals	*979 296*	*920 344*
Other property	301 061	307 334
Sovereigns, municipalities and county councils[2]	66 306	68 477
Guarantees as for own debt[3]	22 783	10 330
Financial collateral	15 162	16 973
Collateral in assets	24 896	24 343
Other collateral	17 703	19 093
Unsecured	206 426	208 830
Total loans to the public	**2 065 761**	**1 963 622**

[1] Including housing co-operative apartments.
[2] Refers to direct sovereign exposures and government guarantees.
[3] Does not include government guarantees.

Table 14 Collateral value for loans secured by real estate, UK

Collateral value for loans secured by real estate, UK	**2017**		**2016**	
SEK m	**Exposure amount**	**Collateral value**	**Exposure amount**	**Collateral value**
Residential	75 192	159 920	55 933	115 677
Office and commercial properties	62 328	138 765	55 591	123 450
Industrial	8 855	25 209	7 749	21 177
Agriculture and forestry	2 261	7 063	2 032	6 384
Undeveloped land	2 208	4 399	1 744	3 959
Total	**150 845**	**335 356**	**123 049**	**270 646**

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, a debt ratio ceiling is applied. In Sweden, for example, this is six times disposable 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.

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 2017 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 loan-to-value ratios 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).

Figure 15 Cumulative breakdown of property lending by LTV, Handelsbanken's home markets, 2017

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

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

	2017			2016		
%	Residential property	Commercial property	Total	Residential property	Commercial property	Total
0–40%	74.8	75.0	74.9	74.0	73.9	74.0
41–60%	17.8	19.3	18.1	18.1	20.1	18.5
61–75%	5.1	3.3	4.7	5.4	3.8	5.1
> 75%	2.3	2.4	2.3	2.5	2.2	2.4
LTV-Max	54.5	55.4	54.7	55.4	56.1	55.5

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

	2017			2016		
%	Residential property	Commercial property	Total	Residential property	Commercial property	Total
LTV-Max	60.6	61.5	60.8	61.5	62.3	61.7

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

Breakdown of property lending by LTV, UK

	2017			2016		
%	Residential property	Commercial property	Total	Residential property	Commercial property	Total
0–40%	77.4	81.2	79.0	77.1	80.3	78.4
41–60%	19.0	16.4	17.9	19.2	17.1	18.3
61–75%	2.8	1.3	2.1	2.9	1.5	2.3
> 75%	0.8	1.2	0.9	0.8	1.1	1.0
LTV-Max	52.4	49.8	51.3	52.7	50.6	51.8

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

	2017			2016		
%	Residential property	Commercial property	Total	Residential property	Commercial property	Total
LTV-Max	58.2	55.4	57.0	58.5	56.3	57.6

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

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 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 565 billion (540). 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. 98 per cent (99) 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 (97), Denmark 96 per cent (96), Finland 98 per cent (98), Norway 96 per cent (97), and the Netherlands 99 per cent (99). 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 thanks in part to the Bank's substantial credit growth in the UK as a result of an expansion of the branch network. A large part of this growth has been in property-related credits. In the UK, Handelsbanken has had the same strict requirements on repayment capacity, LTVs and collateral quality as in its other home markets.

Table 18 Specification of loans to the public – Property management

Specification of loans to the public – Property management	2017			2016		
SEK m	Loans before deduction of provisions	Provisions for probable loan losses	Loans after deduction of provisions	Loans before deduction of provisions	Provisions for probable loan losses	Loans after deduction of provisions
Loans in Sweden						
State-owned property companies	4 329	0	4 329	3 228	0	3 228
Municipal-owned property companies	8 874	0	8 874	9 771	0	9 771
Residential property companies	106 014	-20	105 994	99 598	-26	99 572
of which mortgage loans	*92 260*	*0*	*92 260*	*85 134*	*-1*	*85 133*
Other property management	125 224	-126	125 098	127 578	-130	127 448
of which mortgage loans	*52 932*	*-2*	*52 930*	*52 925*	*-2*	*52 923*
Total loans in Sweden	**244 441**	**-146**	**244 295**	**240 175**	**-156**	**240 019**
Loans outside Sweden						
UK	125 701	-197	125 504	111 800	-289	111 511
Norway	104 319	-100	104 219	103 767	-108	103 659
Denmark	20 367	-70	20 297	19 755	-118	19 637
Finland	37 302	-4	37 298	33 891	-4	33 887
The Netherlands	27 628	0	27 628	23 194	0	23 194
Other countries	5 432	-6	5 426	7 612	-16	7 596
Total loans outside Sweden	**320 749**	**-377**	**320 372**	**300 019**	**-535**	**299 484**
Total loans – Property management	**565 190**	**-523**	**564 667**	**540 194**	**-691**	**539 503**

Table 19 Specification of loans to the public – Property management, type of collateral and country

Specification of loans to the public – Property management, type of collateral and country	2017					2016				
SEK m	Total	Companies owned by or property lending guaranteed by government or municipality	Residential property	Commercial property and other collateral	Unsecured	Total	Companies owned by or property lending guaranteed by government or municipality	Residential property	Commercial property and other collateral	Unsecured
Sweden	244 441	13 598	118 902	100 362	11 579	240 175	14 129	103 681	109 681	12 684
UK	125 701	0	61 015	61 388	3 298	111 800	0	54 193	54 853	2 754
Norway	104 319	0	16 224	80 553	7 542	103 767	0	16 304	79 339	8 124
Denmark	20 367	0	10 829	7 620	1 918	19 755	0	10 166	8 388	1 201
Finland	37 302	18 083	5 777	12 848	594	33 891	14 561	5 401	12 585	1 344
The Netherlands	27 628	0	13 992	13 192	444	23 194	0	11 072	12 073	49
Other countries	5 432	551	808	3 373	700	7 612	267	643	2 867	3 835
Total	**565 190**	**32 232**	**227 547**	**279 336**	**26 075**	**540 194**	**28 957**	**201 460**	**279 786**	**29 991**

Table 20 Specification of loans to the public – Property management, risk class and country

Specification of loans to the public – Property management, risk class and country 2017
SEK m

Risk class	Sweden	UK	Norway	Denmark	Finland	The Netherlands	Other countries	Total	%	Accum. % of total
1	22 433	950	1 287	76	8 167	19	1 241	34 173	6.05	6
2	64 187	23 702	23 010	3 780	9 856	10 404	1 988	136 927	24.23	30
3	91 895	65 576	53 368	8 927	11 199	14 653	1 358	246 976	43.70	74
4	47 323	28 664	16 243	5 043	6 218	2 070	681	106 242	18.80	93
5	15 788	4 600	6 282	1 697	1 248	257	74	29 946	5.30	98
6	1 545	595	2 701	431	94	207	61	5 634	1.00	99
7	649	194	637	110	389	18	0	1 997	0.35	99
8	208	94	330	99	31	0	0	762	0.13	100
9	90	39	172	18	27	0	2	348	0.06	100
Defaults	323	1 287	289	186	73	0	27	2 185	0.39	100
Total	**244 441**	**125 701**	**104 319**	**20 367**	**37 302**	**27 628**	**5 432**	**565 190**	**100**	

Specification of loans to the public – Property management, risk class and country 2016
SEK m

Risk class	Sweden	UK	Norway	Denmark	Finland	The Netherlands	Other countries	Total	%	Accum. % of total
1	21 647	744	1 858	82	5 474	39	1 104	30 948	5.73	6
2	60 262	21 710	26 369	2 618	10 812	8 197	3 886	133 854	24.78	31
3	97 610	54 935	50 727	8 167	11 431	12 399	1 329	236 598	43.80	74
4	44 490	25 662	14 909	5 998	5 000	1 999	914	98 972	18.32	93
5	13 444	5 326	7 081	2 113	546	302	314	29 126	5.39	98
6	1 327	1 695	1 095	220	108	214	26	4 685	0.87	99
7	805	625	1 063	112	411	44	0	3 060	0.57	99
8	185	85	336	59	26	0	0	691	0.13	100
9	93	21	99	12	10	0	0	235	0.04	100
Defaults	312	997	230	374	73	0	39	2 025	0.37	100
Total	**240 175**	**111 800**	**103 767**	**19 755**	**33 891**	**23 194**	**7 612**	**540 194**	**100**	

Table 21 Specification of loans to the public – Property management, risk class, type of collateral and unsecured

Specification of loans to the public – Property management, risk class, type of collateral and unsecured 2017
SEK m

	Loans	Collateral				
Risk class		Residential property	Commercial property	Guarantees from government and municipality	Other collateral	Unsecured
1	34 173	16 373	4 223	9 134	2 786	1 657
2	136 927	58 951	56 058	6 357	2 862	12 699
3	246 976	99 806	131 987	4 554	3 760	6 869
4	106 242	45 731	52 336	3 781	1 669	2 725
5	29 946	10 224	16 885	618	738	1 481
6	5 634	937	4 338	1	239	119
7	1 997	473	1 217	10	98	199
8	762	135	552	0	62	13
9	348	83	222	3	28	12
Defaults	2 185	342	1 324	4	85	430
Total	**565 190**	**233 055**	**269 142**	**24 462**	**12 327**	**26 204**

Specification of loans to the public – Property management, risk class, type of collateral and unsecured 2016
SEK m

	Loans	Collateral				
Risk class		Residential property	Commercial property	Guarantees from government and municipality	Other collateral	Unsecured
1	30 948	15 336	5 722	6 755	973	2 162
2	133 854	48 936	62 140	6 483	2 609	13 686
3	236 598	92 978	125 902	4 967	4 008	8 743
4	98 972	36 085	54 224	3 228	1 722	3 713
5	29 126	9 679	17 721	236	575	915
6	4 685	1 247	3 168	1	177	92
7	3 060	655	2 173	14	124	94
8	691	170	438	0	58	25
9	235	63	97	3	45	27
Defaults	2 025	363	946	0	152	564
Total	**540 194**	**205 512**	**272 531**	**21 687**	**10 443**	**30 021**

IMPAIRMENTS AND PAST DUE LOANS

Loan losses

Loans are classified as impaired if their contracted cash flows are not likely to be fulfilled. The full amount of any claim which gives rise to a specific provision is included in impaired loans even if parts of the claim are covered by collateral. This means that the reserve ratio (provisions for probable loan losses as a proportion of impaired loans) does not take into account collateral received and thus does not provide a complete picture of the remaining risk of loss. Loans which have been written off as actual loan losses are not included in impaired loans.

All units with customer and credit responsibility in the Handelsbanken Group regularly perform individual assessments of the need for recognising impairment losses for loans and receivables that are measured at amortised cost. Impairment testing is performed where there is objective evidence that the recoverable amount of the loan is less than its carrying amount. Objective evidence could be, according to the circumstances, late or non-payment, bankruptcy, change in credit rating, or a decline in the market value of the collateral. When performing impairment testing, the recoverable amount of the loan is calculated by discounting the estimated future cash flows related to the loan and any collateral (including guarantees) by the effective interest rate of the loan. If the collateral is a listed asset, the valuation of the collateral is based on the quoted price; otherwise, the valuation is based on the yield value or the market value estimated in some other manner. If the estimated recoverable amount is less than the carrying amount, then an impairment loss is recognised as a loan loss in profit or loss, either through a direct write-off (actual loan loss) or by a provision account for loan losses (probable loan loss). Information concerning property repossessed to protect claims can be found in note G10 Loan losses in the Annual Report.

In addition to the above-mentioned assessment of individual loans, a collective assessment is made of individually valued loans and of homogeneous groups of loans with a similar risk profile, with the purpose of identifying the need to recognise an impairment loss that cannot yet be allocated to individual loans. If necessary, a group impairment is recognised for the group of loans.

This impairment loss is based on events that have occurred and that signal a deterioration in creditworthiness but where no individual impairment testing has demonstrated a need for impairment and where no default has actually occurred. The provisioned amount is based on the change in expected loss in the case of rating migration to risk classes that are poorer than normal risk.

Loan losses for the period comprise actual losses and probable losses on credits granted, less recoveries and reversals of previous impairment losses recognised for probable loan losses. Actual loan losses may refer to entire loans or parts of loans and are recognised when there is no realistic possibility of recovery. This is the case, for example, when a trustee in bankruptcy has estimated bankruptcy dividends, a scheme of arrangement has been accepted or the receivable has been waived in some other way. An amount forgiven in connection with restructuring of a loan or group of loans is always classified as an actual loss. If the customer is following a payment plan for a loan which was already previously classified as an actual loan loss, the amount of the loss is subject to new testing.

Recoveries consist of reversed amounts on loan losses previously recognised as actual losses. Information about probable and actual losses is provided in note G10 Loan losses in the Annual Report.

Financial assets

Available-for-sale financial assets are tested for impairment when there is objective evidence that one or more events of default have occurred with an impact on expected future cash flows for the asset. For interest-bearing financial assets, examples of events of default are that the Bank has deemed it probable that the borrower will go into bankruptcy, or there is evidence that the issuer has major financial difficulties. For equity instruments, a permanent or considerable decline in the fair value is an indication of the need to recognise an impairment loss. When recognising an impairment loss, the part of the cumulative loss that was previously recognised in the fair value reserve in equity (corresponding to the difference between the acquisition cost for the instrument and the current fair value less any previous impairment loss) is recognised in the income statement.

Previously recognised impairment losses on interest-bearing securities classified as available-for-sale financial assets are reversed in the income statement if the fair value of the asset has increased since the impairment loss was recognised and the increase can be objectively related to an event occurring after the impairment loss was recognised. Previous impairment losses on equity instruments classified as available-for-sale financial instruments are not reversed.

Table 22 breaks down the volumes in question based on the balance sheet. For past due loans that are not impaired loans, the assessment is that contracted payments will probably be fulfilled.

The year's loan losses were somewhat lower than in the preceding year. See table 25. To a large extent, the loan losses relate to two credit exposures.

Capital Requirements Regulation

Among other topics, the accounting rules cover the treatment of provisions for loan losses and impairments as well as the recognition of these in the profit or loss account. The Capital Requirements Regulation is linked to the accounting rules in that loan losses reduce the income statement, which in turn leads to a decrease in an institution's common equity tier 1 capital. The term used in the Capital Requirements Regulation is 'credit risk adjustments'. Credit risk adjustments are loss provisions that are divided into the two categories specific and general. 'Credit risk adjustments' corresponds to 'provisions' in accounting rules.

According to the European Commission's Delegated Regulation (EU) No 183/2014, the amounts included in the calculation of general and specific credit risk adjustments shall be equal to all amounts by which an institution's common equity tier 1 capital has been reduced in order to reflect loan losses according to the applicable accounting framework and recognised as such in the profit or loss account, irrespective of whether they result from impairments, value adjustments, or provisions for off-balance-sheet items.

General credit risk adjustments are provisions for losses for a portfolio of exposures for which the institution has no evidence that a loss has occurred. If exposures are to be included in general credit risk adjustments, the amounts must be freely and fully available to cover loan losses. Handelsbanken has had no such losses in 2017, so the amount for general credit risk adjustments is zero.

Table 23 shows the gross exposures by exposure class and instrument and also broken down by credit risk adjustments, depreciation/amortisation, and net value for the full year 2017. The table is divided into sections for exposures according to the IRB Approach and according to the standardised approach. 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. Net value corresponds to the accounting value disclosed in the accounts. The Tables section contains information about geographic breakdowns (table TB2) and sectors or counterparty types (table TB1). Table 24 shows changes during the year in the stock of specific credit risk adjustments.

Table 22 Maturity structure for past due loans which are not impaired

Maturity structure for past due loans which are not impaired 2017		Loans to the public			
SEK m	Loans to credit institutions	Retail	Corporate	Other	Total
Past due ≥ 5 days ≤ 1 month	-	2 019	535	-	2 554
Past due > 1 month ≤ 2 months	-	206	97	-	303
Past due > 2 months ≤ 3 months	-	88	122	-	210
Past due > 3 months ≤ 12 months	-	271	137	-	408
Past due > 12 months	-	306	44	-	350
Total	**-**	**2 890**	**935**	**-**	**3 825**

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 at year-end 2017. 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 year. (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.) 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.

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.

Maturity structure for past due loans which are not impaired 2016		Loans to the public			
SEK m	Loans to credit institutions	Retail	Corporate	Other	Total
Past due ≥ 5 days ≤ 1 month	-	1 486	694	1	2 181
Past due > 1 month ≤ 2 months	-	253	79	-	332
Past due > 2 months ≤ 3 months	-	136	80	-	216
Past due > 3 months ≤ 12 months	-	413	56	-	469
Past due > 12 months	-	329	47	-	376
Total	**-**	**2 617**	**956**	**1**	**3 574**

EU CR1-A – Credit quality of exposures by exposure class and instrument 2016

		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							
2	Institutions	-	28 279	-		-	-	28 279
3	Corporates	6 882	1 272 235	3 390		210	1 684	1 275 726
4	*Of which: Specialised lending*							
5	*Of which: SMEs*	*3 823*	*679 232*	*1 787*		*133*	*699*	*681 268*
6	Retail	2 497	981 454	1 138		69	254	982 812
7	*Secured by real estate property*	*931*	*880 976*	*150*		*7*	*41*	*881 757*
8	*SMEs*	*24*	*7 626*	*7*		-	*2*	*7 642*
9	Non-SMEs	907	873 350	142		7	38	874 115
10	*Qualifying revolving*							
11	*Other retail*	*1 566*	*100 478*	*989*		*63*	*213*	*101 055*
12	*SMEs*	*582*	*20 120*	*366*		*48*	*103*	*20 336*
13	*Non-SMEs*	*983*	*80 358*	*623*		*15*	*111*	*80 719*
14	Equity	-	1 340	-		41	-	1 340
15	***Total IRB Approach***	***9 379***	***2 283 308***	***4 529***		***320***	***1 938***	***2 288 158***
16	Central governments or central banks	-	241 821	-		-	-	241 821
17	Regional governments or local authorities	-	23 496	-		-	-	23 496
18	Public sector entities	-	-	-		-	-	-
19	Multilateral development banks	-	483	-		-	-	483
20	International organisations	-	-	-		-	-	-
21	Institutions	-	1 901	-		-	-	1 901
22	Corporates	109	19 245	39		-	13	19 315
23	*Of which: SMEs*	*109*	*4 637*	*39*		-	*13*	*4 707*
24	Retail	171	30 036	61		-	18	30 146
25	*Of which: SMEs*	*14*	*2 770*	*5*		-	*4*	*2 779*
26	Secured by mortgages on immovable property	37	93 767	15		-	1	93 789
27	*Of which: SMEs*	*6*	*19 806*	*3*		-	-	*19 809*
28	Exposures in default[1]	317	-	111		-	-	206
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	-	6 796	-		-	-	6 796
34	Other exposures	-	10 349	-		-	-	10 349
35	***Total standardised approach***	***317***	***427 895***	***115***		***-***	***33***	***428 097***
36	***Total***	***9 695***	***2 711 202***	***4 643***		***320***	***1 971***	***2 716 255***
37	Of which: Loans	9 235	2 194 153	4 643		320	1 971	2 198 745
38	Of which: Debt securities	-	24 722	-		-	-	24 722
39	Of which: Off-balance-sheet exposures	461	492 328	-		-	-	492 788

[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 from year-end 2016 to year-end 2017 for the amount of general and specific credit risk adjustments. The closing balance has increased compared to the previous year.

	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	

	EU CR2-A – Changes in the stock of general and specific credit risk adjustments 2016	a	b
	SEK m	Accumulated specific credit risk adjustment	Accumulated general credit risk adjustment
1	**Opening balance**	**-4 816**	
2	Increases due to amounts set aside for estimated loan losses during the period	-2 077	
3	Decreases due to amounts reversed for estimated loan losses during the period	429	
4	Decreases due to amounts taken against accumulated credit risk adjustments	1 910	
5	Transfers between credit risk adjustments	0	
6	Impact of exchange rate differences	-89	
7	Business combinations, including acquisitions and disposals of subsidiaries	0	
8	Other adjustments	0	
9	**Closing balance**	**-4 643**	
10	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	230	
11	Specific credit risk adjustments directly recorded to the statement of profit or loss	-254	

Table 25 Loan losses

Loan losses SEK m	2017	2016
Specific provision for individually assessed loans		
The year's provision	-1 811	-1 899
Reversal of previous provisions	225	377
Total	**-1 586**	**-1 522**
Collective provision		
The year's net provision for individually assessed loans	-120	-62
The year's net provision for homogeneous loans	-10	-10
Total	**-130**	**-72**
Off-balance-sheet items		
Losses on off-balance-sheet items	-4	-16
Reversal of previous losses on off-balance-sheet items	10	2
Change in collective provision for off-balance-sheet items	-27	-26
Total	**-21**	**-40**
Write-offs		
Actual loan losses for the year	-1 253	-2 183
Utilised share of previous provisions	1 102	1 863
Recoveries	205	230
Total	**54**	**-90**
Net loan losses	**-1 683**	**-1 724**

Table 26 Impaired loans etc.

Loans are classified as impaired if it is probable that the contractual cash flows will not be fulfilled. The full amount of each receivable that gives rise to a specific provision is included in impaired loans even if this amount is partly covered by collateral. Received collateral is thus not taken into account when calculating the reserve ratio.

Impaired loans etc. SEK m	**2017**	**2016**
Impaired loans	7 944	7 746
Specific provisions for individually assessed loans	-4 578	-4 188
Provisions for collectively assessed homogeneous groups of loans with limited value	-118	-107
Collective provisions for individually assessed loans	-463	-348
Net impaired loans	**2 785**	**3 103**
Total impaired loans reserve ratio, %	64.9	59.9
Proportion of impaired loans, %	0.13	0.16
Impaired loans reserve ratio excluding collective provisions, %	59.1	55.4
Loans past due >60 days, which are not impaired	968	1 061
Impaired loans reclassified as normal loans during the year	13	4

Table 27 Collective provisions by sector and counterparty type

Collective provisions by sector and counterparty type SEK m	**Collective provisions 2017**	**Collective provisions 2016**
Private individuals	-67	-66
Housing co-operative associations	-3	-2
Property management	-85	-89
Manufacturing	-68	-52
Retail	-29	-13
Hotel and restaurant	-3	-4
Passenger and goods transport by sea	-96	-27
Other transport and communication	-7	-5
Construction	-32	-28
Electricity, gas and water	-10	-4
Agriculture, hunting and forestry	-3	-3
Other services	-16	-12
Holding, investment, insurance companies, mutual funds etc.	-15	-13
Other corporate lending	-29	-30
Credit institutions		
Sovereigns and municipalities		
Total	**-463**	**-348**

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.

The Swedish Financial Supervisory Authority has also granted exceptions to 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 states, central banks, government agencies, and municipalities 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 2017, 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 2017, the Bank calculated the capital requirement using the IRB Approach for about 81 per cent (79) of the total risk exposure amount. Of corporate exposures reported using the IRB Approach, 87 per cent (86) were reported using the IRB Approach with own estimates of LGD and CCF.

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 of the Bank’s model for calculating the capital requirement in accordance with the IRB Approach. 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 roughly 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 states, central banks, government agencies and municipalities 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 sole traders, where the total exposure within the Group does not exceed SEK 5 million. Also included are legal entities with a maximum turnover of SEK 50 million, 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 sole traders with a total exposure within the Group in excess of SEK 5 million. Apart from ordinary non-financial companies, the 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 the year-end 2007/2008, 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 states, central banks, government agencies and municipalities 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 probability of default (PD), the exposure the Bank is expected to have if a default occurs (exposure amount), and the proportion of the loan that the Bank would be expected to lose in the case of default (loss given 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

Table 28 Calculation of credit risks broken down by method and business area, 2017

	Business areas			
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 bodies and multilateral development banks	'Insignificant size portfolio' according to FI approval Exposure to international organisations, public bodies and multilateral development banks Retail exposures	'Insignificant size portfolio' according to FI approval Exposure to international organisations, public bodies and multilateral development banks Retail exposures Corporate exposures (except Large corporates)	'Insignificant size portfolio' according to FI approval Exposure to international organisations, public bodies and multilateral development banks
IRB Approach without own estimates of LGD and CCF	Corporate exposures Institutional exposures Non credit-obligation assets Equity exposures Sovereign exposures (central governments, central banks, regional governments and local authorities)	Corporate exposures Institutional exposures Non credit-obligation assets Equity exposures Sovereign exposures (central governments, central banks, regional governments and local authorities)	Corporate exposures (Large corporates) Institutional exposures Non credit-obligation assets Equity exposures Sovereign exposures (central governments, central banks, regional governments and local authorities)	Corporate exposures (Large corporates) Institutional 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).

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 states, central banks, government agencies and municipalities (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 the loss given default (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 won approval 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 will apply for 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 are 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 probability of default between different risk classes. The margins are then summed 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 must reflect the loss rates during 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 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 have a cyclical dependency to some extent.

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 credit conversion factor (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 conversion factor, but the utilisation level may also be relevant.

In addition to the capital adequacy calculation, measures of risk (PD, exposure amounts, LGD)

Figure 29 Proportion of exposure amount per product type by PD interval excluding defaulted credits – Corporate exposures, 2017

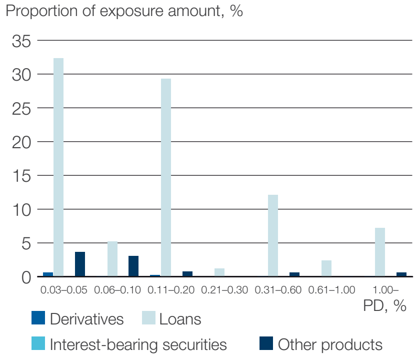


Figure 30 Proportion of exposure amount per product type by PD interval excluding defaulted credits – Institutional exposures, 2017

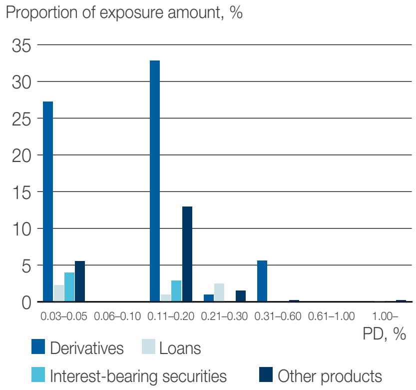


Figure 31 Proportion of exposure amount per product type by PD interval excluding defaulted credits – Retail exposures, 2017

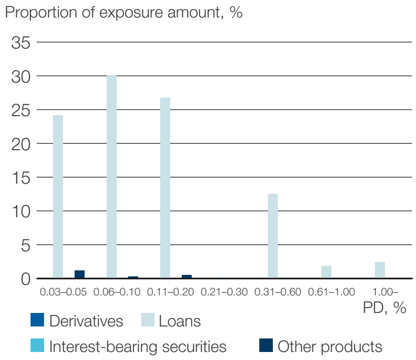
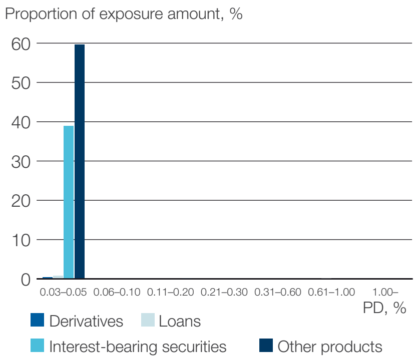


Figure 32 Proportion of exposure amount per product type by PD interval excluding defaulted credits – Sovereign exposures, 2017



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 economic capital, 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.

For corporate, institutional, and retail exposures, as well as for sovereign and central bank exposures, figures 29, 30, 31, and 32 show how the exposures are distributed among bonds and other interest-bearing securities, loans, derivatives, and other products. Other products include guarantees and committed loan offers, for example. The figures show how the exposure amounts, excluding credits in default, are distributed among different PD intervals in each exposure class. The PD values used are those applied when calculating the capital requirement.

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 the rating agency Moody's, 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 not sufficient 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.

Quality assurance of the credit risk model

The Bank performs a detailed annual review of its internal rating models. The review checks that the internal ratings on which the Bank's risk classification is based are applied in a consistent, correct and fit-for-purpose manner (evaluation) and also that the models used 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 rules for rating are followed, and that ratings are updated. The evaluation may highlight ratings in certain parts of the Bank or for certain types of counterparties, with measures being taken to remedy any 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, exposure amounts, 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, among other methods a number of statistical tests are used with predefined threshold values, so that if there are deficiencies in the models, clear signals are given. 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 risk rating system are set by Group Risk Control and approved by 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. Upon request, the evaluation, validation and audit reports are also sent to the Swedish Financial Supervisory Authority.

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 counterparties that have come 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 2016 with outcomes measured during 2017. 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. All exposures subject to a capital requirement according to the IRB Approach are included, except exposures to states and central banks. This model was implemented during 2017 and lacks historical data. During the period used to develop the model, however, no defaults occurred for this counterparty type.

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 2017 there were 1,075 counterparties in interval 2 for companies in the Advanced IRB (A-IRB) but none at the end of 2017, 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 a capital requirement 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. In the calculations for this year, mortgage loan commitments have been reclassified so they are now categorised as property exposures, and some exposures in Finland have been added. Overall, this has led to some revision of historical values for the years 2014–2016. The conclusions concerning the models' function are not affected. If adjustments have been made, the comparison figures in the text below will also be 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 2017, 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. Despite this, the outcomes for corporate exposures are based on a relatively small number of observations and to highlight this, the number per observation occasion 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 69 per cent (67) lower than forecast. For other retail exposures, the outcomes are on average 41 per cent (40) lower than the forecast, and for corporate exposures 33 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.

For corporate exposures, a sharp increase in the EL forecast was observed at June 2017. This increase is attributable to greatly increased margins of conservatism in the new PD models for corporates, which were implemented in Q1 2017. The PD forecast for corporates increased correspondingly.

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 8 per cent (13) higher than the forecasts for property exposures and 1 per cent (5) higher for other exposures in the retail exposure class during the period observed. This 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 downweighting 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 21 per cent (18) 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.

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 45 per cent (46) lower for other retail exposures. For corporate exposures, the outcomes are 40 per cent (39) lower than the forecasts.

For retail exposures, the CCF outcomes are 18 per cent (18) lower than the forecasts, and for corporate exposures the outcomes are 112 per cent (84) lower.

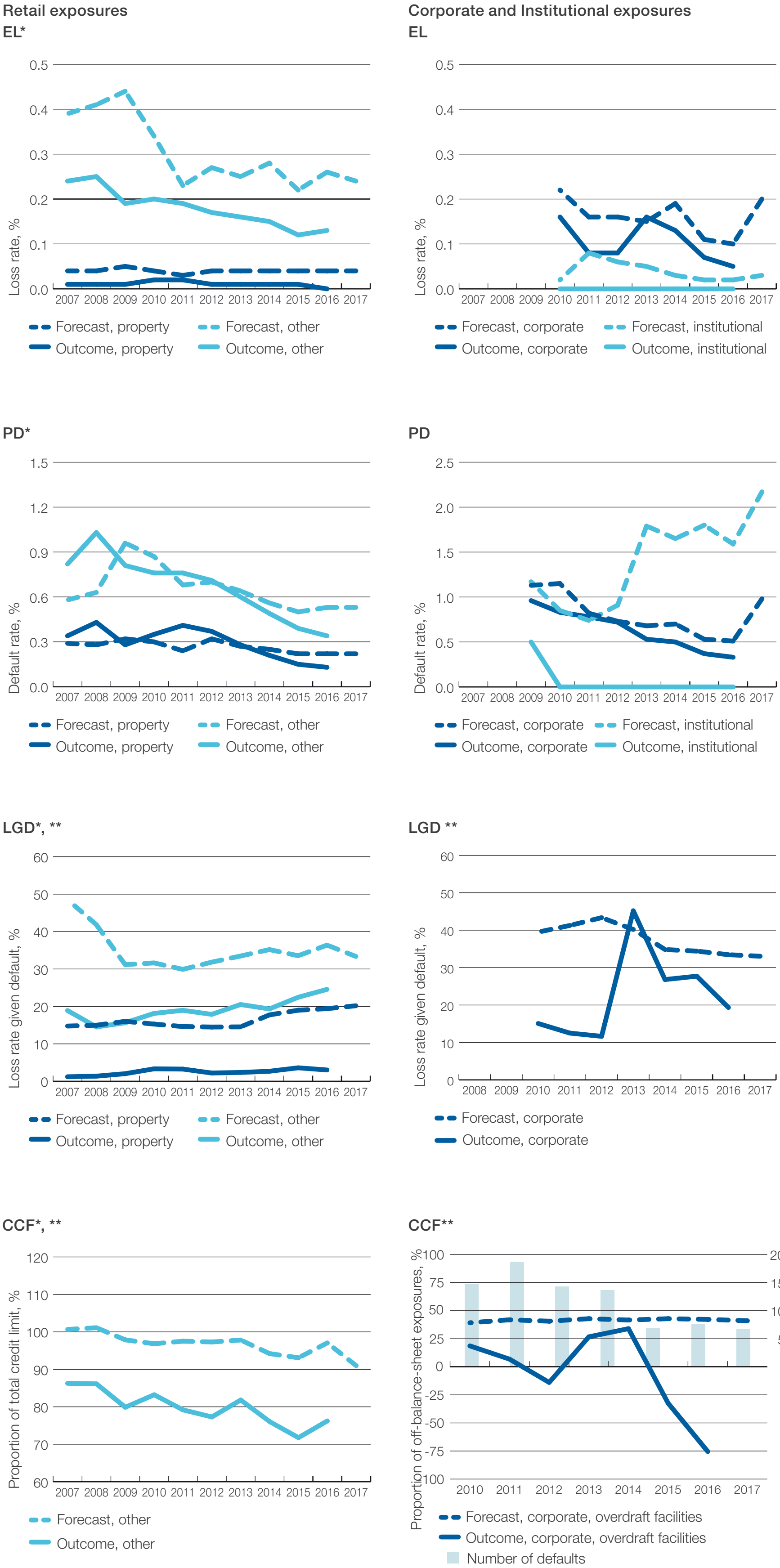
The expected loss rate according to the IRB Approach presented here does not represent,

Table 33 Link between external and internal rating

Link between external and internal rating[1]	Corporate exposures				Institutional 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	Baa, 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	B, 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 34 Forecast and outcome, IRB Approach



* Excluding Handelsbanken Finans and Ecster.

** The calculation method has been changed which has affected the values for the previous years. The forecasts are now calculated as PD and exposure-weighted average values. The outcomes are calculated as exposure-weighted average values.

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 0.05 per cent (0.04). The other columns show how EL is affected by the introduction of margins and regulatory floors for applied PD levels.

The safety margins 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 margins of conservatism for corporate PD were greatly increased in 2017, as mentioned above, which is reflected in corporates' very high contribution to EL. The total contribution from the PD safety margins is greater than EL based on historical data.

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

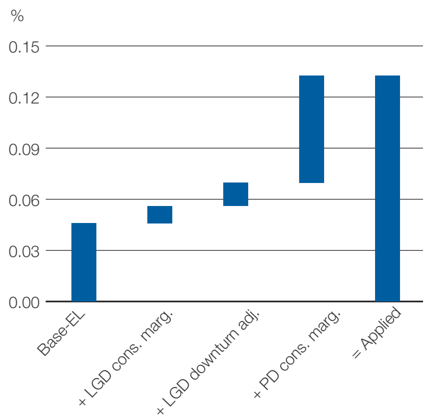


Table 36 EU CR9 – IRB Approach – Backtesting of PD by exposure class

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

EU CR9 – IRB Approach – Backtesting of PD by exposure class 2017

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 obligors[4]	Average historical annual default rate
Corporate exposures	IRB-A	0.00 to <0.15		0.04%	0.05%	1 152	2 157			0.00%
Corporate exposures	IRB-A	0.15 to <0.25		0.20%	0.20%	1 075		1		0.02%
Corporate exposures	IRB-A	0.25 to <0.50		0.48%	0.48%	482	510			0.00%
Corporate exposures	IRB-A	0.50 to <0.75		0.64%	0.64%	62	199			0.05%
Corporate exposures	IRB-A	0.75 to <2.50		0.97%	0.97%	373	352	1		0.31%
Corporate exposures	IRB-A	2.50 to <10.00		4.56%	4.62%	88	82			1.59%
Corporate exposures	IRB-A	10.00 to <100.00		18.18%	24.66%	18	60	1		12.23%
Corporate exposures: SMEs	IRB-A	0.00 to <0.15		0.04%	0.04%	26 542	27 310			0.01%
Corporate exposures: SMEs	IRB-A	0.15 to <0.25		0.18%	0.18%	8 640	3 921	4		0.07%
Corporate exposures: SMEs	IRB-A	0.25 to <0.50		0.35%	0.35%	3 798	933	5		0.20%
Corporate exposures: SMEs	IRB-A	0.50 to <0.75		0.64%	0.64%	2 556	8 231	6	1	0.36%
Corporate exposures: SMEs	IRB-A	0.75 to <2.50		1.27%	1.27%	2 453	5 525	12		0.75%
Corporate exposures: SMEs	IRB-A	2.50 to <10.00		4.32%	4.96%	1 169	836	39		3.86%
Corporate exposures: SMEs	IRB-A	10.00 to <100.00		13.65%	15.47%	399	790	38	3	15.39%
Institute exposures	IRB-A	0.00 to <0.15								
Institute exposures	IRB-A	0.15 to <0.25								
Institute exposures	IRB-A	0.25 to <0.50								
Institute exposures	IRB-A	0.50 to <0.75								
Institute exposures	IRB-A	0.75 to <2.50								
Institute exposures	IRB-A	2.50 to <10.00								
Institute exposures	IRB-A	10.00 to <100.00								
Corporate exposures	IRB-F	0.00 to <0.15		0.05%	0.05%	613	1 255	1		0.04%
Corporate exposures	IRB-F	0.15 to <0.25		0.20%	0.20%	629				0.00%
Corporate exposures	IRB-F	0.25 to <0.50		0.48%	0.48%	315	288			0.00%
Corporate exposures	IRB-F	0.50 to <0.75		0.64%	0.64%	5	21			0.18%
Corporate exposures	IRB-F	0.75 to <2.50		0.97%	0.97%	219	175	1		0.35%
Corporate exposures	IRB-F	2.50 to <10.00		4.64%	4.26%	69	51			0.41%
Corporate exposures	IRB-F	10.00 to <100.00		18.21%	26.32%	9	32			18.02%
Corporate exposures: SMEs	IRB-F	0.00 to <0.15		0.04%	0.04%	1 969	2 095			0.00%
Corporate exposures: SMEs	IRB-F	0.15 to <0.25		0.17%	0.17%	1 936	1 600			0.02%
Corporate exposures: SMEs	IRB-F	0.25 to <0.50		0.37%	0.37%	1 281	40	3		0.20%
Corporate exposures: SMEs	IRB-F	0.50 to <0.75		0.64%	0.64%	151	1 852	2	1	0.17%
Corporate exposures: SMEs	IRB-F	0.75 to <2.50		1.27%	1.27%	721	887	6		0.95%
Corporate exposures: SMEs	IRB-F	2.50 to <10.00		5.16%	5.26%	221	139	8		4.53%
Corporate exposures: SMEs	IRB-F	10.00 to <100.00		13.99%	17.58%	53	129	11	1	21.48%
Institute exposures	IRB-F	0.00 to <0.15	Aaa, Aa, A	0.09%	0.09%	116	126			0.00%
Institute exposures	IRB-F	0.15 to <0.25	A	0.21%	0.21%	43	34			0.00%
Institute exposures	IRB-F	0.25 to <0.50								
Institute exposures	IRB-F	0.50 to <0.75	Baa	0.51%	0.51%	27	19			0.00%
Institute exposures	IRB-F	0.75 to <2.50	Baa, Ba	1.24%	1.24%	28	25			0.00%
Institute exposures	IRB-F	2.50 to <10.00	Ba	2.55%	2.55%	11	16			0.00%
Institute exposures	IRB-F	10.00 to <100.00	B, Caa, C	18.59%	18.69%	16	9			0.00%

EU CR9 – IRB Approach – Backtesting of PD by exposure class 2017

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 obligors[4]	Average historical annual default rate
Retail exposures: Other	IRB-A	0.00 to <0.15		0.07%	0.05%	404 000	402 934	187	71	0.03%
Retail exposures: Other	IRB-A	0.15 to <0.25								0.00%
Retail exposures: Other	IRB-A	0.25 to <0.50		0.39%	0.37%	129 539	122 378	590	288	0.23%
Retail exposures: Other	IRB-A	0.50 to <0.75		0.55%	0.57%	1 997	1 548	297	294	0.88%
Retail exposures: Other	IRB-A	0.75 to <2.50		1.31%	1.12%	90 183	83 979	1 084	507	0.62%
Retail exposures: Other	IRB-A	2.50 to <10.00		5.44%	4.87%	20 263	18 728	1 283	637	3.38%
Retail exposures: Other	IRB-A	10.00 to <100.00		17.64%	16.55%	3 757	3 418	612	98	13.49%
Retail exposures: Secured by real estate property	IRB-A	0.00 to <0.15		0.07%	0.07%	1 043 244	1 038 116	238	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			0.01%
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%
Retail exposures: Secured by real estate property	IRB-A	0.75 to <2.50		1.03%	1.01%	21 300	21 819	152	1	0.83%
Retail exposures: Secured by real estate property	IRB-A	2.50 to <10.00		5.52%	5.14%	9 267	8 253	375	8	4.06%
Retail exposures: Secured by real estate property	IRB-A	10.00 to <100.00		16.06%	15.89%	4 426	4 052	608	4	13.46%

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 is 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 2016

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 obligors[4]	Average historical annual default rate
Corporate exposures	IRB-A	0.00 to <0.15		0.04%	0.04%	1 135	1 152			0.00%
Corporate exposures	IRB-A	0.15 to <0.25		0.20%	0.20%	1 022	1 075			0.00%
Corporate exposures	IRB-A	0.25 to <0.50		0.46%	0.46%	523	482			0.00%
Corporate exposures	IRB-A	0.50 to <0.75		0.64%	0.64%	27	62			0.06%
Corporate exposures	IRB-A	0.75 to <2.50		0.87%	0.87%	368	373	1		0.32%
Corporate exposures	IRB-A	2.50 to <10.00		4.41%	4.61%	133	88	5		2.12%
Corporate exposures	IRB-A	10.00 to <100.00		23.31%	32.30%	13	18	2		14.45%
Corporate exposures: SMEs	IRB-A	0.00 to <0.15		0.04%	0.04%	25 067	26 542	3		0.01%
Corporate exposures: SMEs	IRB-A	0.15 to <0.25		0.18%	0.18%	8 288	8 640	3		0.07%
Corporate exposures: SMEs	IRB-A	0.25 to <0.50		0.35%	0.35%	3 847	3 798	8		0.23%
Corporate exposures: SMEs	IRB-A	0.50 to <0.75		0.63%	0.64%	2 597	2 556	10		0.42%
Corporate exposures: SMEs	IRB-A	0.75 to <2.50		1.27%	1.27%	2 541	2 453	25	3	0.84%
Corporate exposures: SMEs	IRB-A	2.50 to <10.00		5.12%	5.46%	1 601	1 169	68	2	4.04%
Corporate exposures: SMEs	IRB-A	10.00 to <100.00		19.53%	22.15%	219	399	53		17.60%
Institute exposures	IRB-A	0.00 to <0.15								
Institute exposures	IRB-A	0.15 to <0.25								
Institute exposures	IRB-A	0.25 to <0.50								
Institute exposures	IRB-A	0.50 to <0.75								
Institute exposures	IRB-A	0.75 to <2.50								
Institute exposures	IRB-A	2.50 to <10.00								
Institute exposures	IRB-A	10.00 to <100.00								
Corporate exposures	IRB-F	0.00 to <0.15		0.04%	0.04%	601	613			0.00%
Corporate exposures	IRB-F	0.15 to <0.25		0.20%	0.20%	539	629			0.00%
Corporate exposures	IRB-F	0.25 to <0.50		0.46%	0.46%	316	315			0.00%
Corporate exposures	IRB-F	0.50 to <0.75		0.64%	0.64%	3	5			0.24%
Corporate exposures	IRB-F	0.75 to <2.50		0.87%	0.87%	227	219	1		0.31%
Corporate exposures	IRB-F	2.50 to <10.00		4.02%	4.31%	61	69	1		0.55%
Corporate exposures	IRB-F	10.00 to <100.00		37.70%	25.75%	6	9	2		24.03%
Corporate exposures: SMEs	IRB-F	0.00 to <0.15		0.04%	0.04%	1 553	1 969			0.00%
Corporate exposures: SMEs	IRB-F	0.15 to <0.25		0.17%	0.17%	1 290	1 936			0.03%
Corporate exposures: SMEs	IRB-F	0.25 to <0.50		0.37%	0.37%	737	1 281	1		0.19%
Corporate exposures: SMEs	IRB-F	0.50 to <0.75		0.64%	0.64%	133	151	1	1	0.00%
Corporate exposures: SMEs	IRB-F	0.75 to <2.50		1.27%	1.27%	557	721	5		0.99%
Corporate exposures: SMEs	IRB-F	2.50 to <10.00		4.22%	5.87%	216	221	12		4.83%
Corporate exposures: SMEs	IRB-F	10.00 to <100.00		20.96%	21.94%	39	53	13	2	22.36%
Institute exposures	IRB-F	0.00 to <0.15	Aaa, Aa, A	0.08%	0.09%	121	116			0.00%
Institute exposures	IRB-F	0.15 to <0.25	A	0.21%	0.21%	49	43			0.00%
Institute exposures	IRB-F	0.25 to <0.50								
Institute exposures	IRB-F	0.50 to <0.75	Baa	0.51%	0.51%	30	27			0.00%
Institute exposures	IRB-F	0.75 to <2.50	Baa, Ba	1.24%	1.24%	25	28			0.00%
Institute exposures	IRB-F	2.50 to <10.00	Ba	2.55%	2.55%	9	11			0.00%
Institute exposures	IRB-F	10.00 to <100.00	B, Caa, C	23.61%	19.74%	17	16			0.00%
Retail exposures: Other	IRB-A	0.00 to <0.15		0.07%	0.05%	410 381	404 000	187	68	0.03%
Retail exposures: Other	IRB-A	0.15 to <0.25								0.00%
Retail exposures: Other	IRB-A	0.25 to <0.50		0.37%	0.35%	138 092	129 539	534	256	0.23%
Retail exposures: Other	IRB-A	0.50 to <0.75		0.67%	0.69%	62	1 997	228	227	1.24%
Retail exposures: Other	IRB-A	0.75 to <2.50		1.18%	1.00%	96 141	90 183	975	403	0.62%
Retail exposures: Other	IRB-A	2.50 to <10.00		4.68%	3.97%	23 298	20 263	1 240	469	3.45%
Retail exposures: Other	IRB-A	10.00 to <100.00		15.51%	14.23%	4 426	3 757	676	67	13.43%

EU CR9 – IRB Approach – Backtesting of PD by exposure class 2016

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 obligors[4]	Average historical annual default rate
Retail exposures: Secured by real estate property	IRB-A	0.00 to <0.15		0.07%	0.07%	1 034 342	1 043 244	264	5	0.03%
Retail exposures: Secured by real estate property	IRB-A	0.15 to <0.25		0.16%	0.16%	1 383	1 301			0.01%
Retail exposures: Secured by real estate property	IRB-A	0.25 to <0.50		0.35%	0.34%	177 792	164 953	312	15	0.18%
Retail exposures: Secured by real estate property	IRB-A	0.50 to <0.75					4 454			0.41%
Retail exposures: Secured by real estate property	IRB-A	0.75 to <2.50		0.91%	0.90%	23 504	21 300	137	2	0.87%
Retail exposures: Secured by real estate property	IRB-A	2.50 to <10.00		4.39%	4.00%	11 100	9 267	442	14	4.10%
Retail exposures: Secured by real estate property	IRB-A	10.00 to <100.00		13.79%	13.50%	5 141	4 426	702	5	13.40%

[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 is 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.

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 (so-called 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 0.7 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, the capital requirement is reduced when collateral exists 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 risks.

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

Acceptable collateral which reduces the capital requirement, IRB Approach		2017		2016	
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	4 829	2	-	-
Corporate exposures	- Guarantees	85 812	8	66 812	6
	- Receivables	592	0	724	0
	- Financial collateral	20 047	2	22 004	2
	- Property	714 407	65	677 455	64
	- Other collateral	14 418	1	15 302	1
Retail exposures	- Residential property[1]	932 420	91	881 903	90
	- Other collateral	11 289	1	11 112	1
Institutional exposures	- Guarantees	2 836	4	2 922	3
	- Financial collateral	36 231	50	58 242	54
Securitisation positions	- Guarantees	1 111	98	1 279	98
Total		**1 823 992**	**73**	**1 737 755**	**81**

[1] Including housing co-operative apartments.

Exposures approved for the IRB Approach
For capital requirement calculations of corporate exposures, exposures secured by property correspond to about 68 per cent (64) of the total exposure amount. The equivalent figure for guarantees is approximately 8 per cent (6), 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 91 per cent (90) 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 8 percentage points (9) 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 50 per cent (54) of the exposure amount. The corresponding figure for guarantees is about 2 per cent (3).

Of the exposures covered by guarantees, totalling SEK 90,326 million (71,013), SEK 60,881 million (57,688) relates to guarantees from states and municipalities, SEK 2,766 million (752) to guarantees from institutions, and SEK 26,697 million (12,572) to guarantees from companies.

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. The capital requirement is then calculated by sub-exposure, based on the existence of collateral.

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 77 per cent (69) of the reported exposure value, of which about 1 percentage point (3) refers to guarantees and the remaining 76 percentage points (66) 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. Previously, exposures to states, central banks, government agencies, and municipalities were subject to the standardised approach, but as of Q2 2017 they are subject to the IRB Approach. In the Foundation IRB Approach, prescribed values are applied for LGD and the credit conversion factor, 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.

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

Acceptable collateral which reduces the capital requirement, IRB Approach		2017		2016	
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	-	-	1 664	1
Corporate exposures	- Guarantees	943	2	359	1
	- Financial collateral	534	1	527	2
	- Property	28 611	75	24 178	70
Retail exposures	- Guarantees	239	0	294	0
	- Financial collateral	1 702	2	1 464	2
	- Property	77 401	81	67 813	79
Institutional exposures	- Guarantees	96	1	120	2
	- Financial collateral	1 928	25	3 024	43
Total		**111 454**	**78**	**99 443**	**26**

[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

The table below shows the EAD broken down by exposure class and risk weight at year-end 2017. It comprises figures obtained using the standardised approach. Total EAD has decreased compared to the previous year. One reason is that 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.

EU CR5 – Standardised approach 2017

	Exposure classes SEK m	Risk weight 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**

EU CR5 – Standardised approach 2016

	Exposure classes SEK m	Risk weight 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	252 601				3		7			6	0						252 616	
2	Regional government or local authorities	53 822				112												53 933	
3	Public sector entities																		
4	Multilateral development banks	483																483	
5	International organisations																		
6	Institutions					1 039		128			10							1 177	
7	Corporates							0			10 078							10 078	2 233
8	Retail									16 867								16 867	16 867
9	Secured by mortgages on immovable property						79 229	12 653		205								92 087	92 087
10	Exposures in default										81	118						199	132
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										577		6 220					6 796	6 796
16	Other items	355									7 747					219		8 321	8 321
17	**Total**	**307 261**				**1 153**	**79 229**	**12 788**		**17 072**	**18 499**	**118**	**6 220**			**219**		**442 558**	**126 436**

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	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Sovereign exposures	**357 719**		**18 456**		**7 474**		**598**		**2.1**	
Corporate exposures	**852 845**	**821 000**	**121 454**	**125 992**	**237 107**	**194 650**	**18 969**	**15 572**	**27.8**	**23.7**
Corporate lending	835 665	798 330	121 384	125 836	233 707	190 709	18 697	15 257	28	23.9
of which other lending, IRB Approach without own estimates of LGD and CCF	*109 608*	*116 048*	*62 936*	*68 506*	*32 467*	*35 946*	*2 598*	*2 876*	*29.6*	*31*
of which other lending, IRB Approach with own estimates of LGD and CCF	*726 057*	*682 282*	*58 448*	*57 330*	*201 240*	*154 763*	*16 099*	*12 381*	*27.7*	*22.7*
of which large corporates	*152 189*	*126 774*	*32 991*	*33 749*	*58 176*	*57 176*	*4 654*	*4 574*	*38.2*	*45.1*
of which medium-sized companies	*80 590*	*81 640*	*9 914*	*9 928*	*37 839*	*32 486*	*3 027*	*2 599*	*47*	*39.8*
of which property companies	*493 278*	*473 868*	*15 543*	*13 653*	*105 225*	*65 101*	*8 418*	*5 208*	*21.3*	*13.7*
Counterparty risk	17 180	22 670	70	156	3 400	3 941	272	315	19.8	17.4
Housing co-operative associations	**195 265**	**187 897**	**4 680**	**4 624**	**9 974**	**7 555**	**798**	**604**	**5.1**	**4**
Retail exposures	**1 026 668**	**982 270**	**51 744**	**54 308**	**72 574**	**72 398**	**5 806**	**5 792**	**7.1**	**7.4**
Private individuals	1 001 733	955 346	45 593	47 561	65 742	65 258	5 259	5 221	6.6	6.8
of which property loans	*925 491*	*874 253*	*21 280*	*19 879*	*51 092*	*48 178*	*4 087*	*3 854*	*5.5*	*5.5*
of which other	*76 242*	*81 093*	*24 313*	*27 682*	*14 650*	*17 080*	*1 172*	*1 367*	*19.2*	*21.1*
Small companies	24 935	26 924	6 151	6 747	6 832	7 140	547	571	27.4	26.5
of which property loans	*6 929*	*7 650*	*7*	*27*	*1 707*	*1 706*	*137*	*137*	*24.6*	*22.3*
of which other	*18 006*	*19 274*	*6 144*	*6 720*	*5 125*	*5 434*	*410*	*434*	*28.5*	*28.2*
Institutional exposures	**72 223**	**105 185**	**12 426**	**13 235**	**13 929**	**17 397**	**1 114**	**1 392**	**19.3**	**16.5**
Lending to institutions	16 332	20 066	6 195	4 231	5 232	6 175	418	494	32	30.8
Counterparty risk	55 891	85 119	6 231	9 004	8 697	11 222	696	898	15.6	13.2
of which repos and securities loans	*7 667*	*14 070*	*6 231*	*9 004*	*173*	*631*	*14*	*50*	*2.3*	*4.5*
of which derivatives	*48 224*	*71 049*	-	-	*8 524*	*10 591*	*682*	*848*	*17.7*	*14.9*
Equity exposures	**1 512**	**1 340**	**-**	**-**	**5 068**	**4 959**	**405**	**397**	**335.1**	**370**
of which listed equities	*661*	-	-	-	*1 916*	-	*153*	-	*290*	-
of which other equities	*851*	*1 340*	-	-	*3 152*	*4 959*	*252*	*397*	*370*	*370*
Non credit-obligation asset exposures	**2 238**	**2 387**	**-**	**-**	**2 238**	**2 387**	**179**	**191**	**100**	**100**
Securitisation positions	**20**	**22**	**-**	**-**	**22**	**24**	**2**	**2**	**106**	**105.9**
of which traditional securitisation	*20*	*22*	-	-	*22*	*24*	*2*	*2*	*106*	*105.9*
of which synthetic securitisation	-	-	-	-	-	-	-	-	-	-
Total IRB Approach	**2 508 490**	**2 100 101**	**208 760**	**198 159**	**348 386**	**299 370**	**27 871**	**23 950**	**13.9**	**14.3**

Table 41 Credit risk exposures according to standardised approach[1]

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	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Sovereign and central banks	236	255 748	21	4 029	-	77	-	6	0	0
Municipalities	-	54 908	-	6 332	-	22	-	2	0	0
Multilateral development banks	568	636	1	0	-	0	-	0	0	0
International organisations	35	49	-	0	-	0	-	0	0	0
Institutions	7 290	4 215	498	298	506	343	40	27	6.9	8.1
Corporate	9 407	10 640	2 205	1 020	9 312	10 017	745	801	99.0	94.1
Retail	16 824	17 042	3 186	3 282	12 580	12 737	1 006	1 019	74.8	74.7
Property mortgages	106 316	92 087	6 426	5 688	38 158	33 316	3 053	2 665	35.9	36.2
Past due items	654	199	7	3	748	258	60	21	114.4	129.6
CIU's	86	-	-	-	86	-	7	-	100.0	-
Equities	6 813	6 796	-	-	16 143	16 126	1 291	1 290	236.9	237.3
of which listed equities	-	-	-	-	-	-	-	-	-	-
of which other equities	*6 813*	*6 796*	-	-	*16 143*	*16 126*	*1 291*	*1 290*	*236.9*	*237.3*
Other items	6 780	8 571	-	303	6 300	8 000	505	641	92.9	93.4
Total standardised approach	**155 009**	**450 891**	**12 344**	**20 955**	**83 833**	**80 896**	**6 707**	**6 472**	**54.1**	**17.9**

[1] Details of capital requirements for exposure classes where there are exposures.

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

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 2017. (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. 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. 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 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**

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 63,482 million (64,628) is covered by guarantees from counterparties within the sovereign and municipal exposure class and also the institutional class. This reduces the exposure amount. The corresponding figure for institutional exposures is SEK 2,854 million (3,220). 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 in 2017 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 2017 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 2017. 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.

EU CRB-B – Total and average net amount of exposures 2016		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		
2	Institutions	28 279	25 870
3	Corporates	1 275 726	1 264 504
4	*Of which: Specialised lending*		
5	*Of which: SMEs*	*681 268*	*667 017*
6	Retail	982 812	962 527
7	*Secured by real estate property*	*881 757*	*861 177*
8	*SMEs*	*7 642*	*7 632*
9	*Non-SMEs*	*874 115*	*853 545*
10	*Qualifying revolving*		
11	*Other retail*	*101 055*	*101 350*
12	*SMEs*	*20 336*	*20 709*
13	*Non-SMEs*	*80 719*	*80 641*
14	Equity	1 340	3 290
15	**Total IRB Approach**	**2 288 158**	**2 256 191**
16	Central governments or central banks	241 821	461 728
17	Regional governments or local authorities	23 496	23 860
18	Public sector entities		
19	Multilateral development banks	483	464
20	International organisations		
21	Institutions	1 901	1 837
22	Corporates	19 245	20 373
23	*Of which: SMEs*	*4 636*	*4 262*
24	Retail	30 035	28 280
25	*Of which: SMEs*	*2 770*	*2 551*
26	Secured by mortgages on immovable property	93 765	88 417
27	*Of which: SMEs*	*19 805*	*16 567*
28	Exposures in default	206	198
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	6 796	6 906
34	Other exposures	10 349	8 791
35	**Total standardised approach**	**428 097**	**640 855**
36	**Total**	**2 716 255**	**2 897 045**

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 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	-	-	-	-	-	-	-	-

Exposure calculated according to standardised approach broken down into credit quality steps based on external ratings 2016

	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	245 770	255 575	24 428	54 908	776	764	-	-
2	73	73	-	-	375	81	4 151	0
3	49	48	-	-	327	190	-	-
4	93	50	-	-	112	56	-	-
5	2	2	-	-	137	33	-	-
6	0	0	-	-	-	-	-	-

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 will apply for 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.

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 27.8 per cent (23.7).

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 per cent (97) of the exposure amount is in risk classes 1–5 with low PD values. The corresponding figure for institutional exposures is 100 per cent (100). For retail exposures – private individuals and small companies – the corresponding figures in the better risk classes are 98 per cent (98) and 89 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.

Breakdown, PD interval according to IRB Approach

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 at year-end 2017. The exposure is calculated using the IRB Approach. 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.

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

Exposure class	IRB Approach[1]	PD scale	a Original on-balance-sheet gross exposures, SEK m	b Off-balance-sheet exposures pre-CCF, SEK m	c Average CCF	d EAD post CRM and post CCF, SEK m	e Average PD	f Number of obligors[2]	g Average LGD	h Average maturity, year	i RWAs, SEK m	j RWA density	k EL, SEK m	l 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**	**Subtotal**	**278 627**	**28 079**	**35.68%**	**349 497**	**0.00%**	**410**	**44.92%**	**1.4**	**7 291**	**2.09%**	**5**	**0**
Institute 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
Institute 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
Institute exposures	IRB-F	0.25 to <0.50												
Institute 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
Institute 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
Institute 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
Institute 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
Institute exposures	IRB-F	100.00 (Default)												
Institute 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**	**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**	**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**	**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**	**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 adjustments 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**	**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**	**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**	**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**	**Subtotal**	**911 133**	**21 288**	**100.00%**	**932 420**	**0.30%**	**1 233 267**	**16.10%**		**52 799**	**5.66%**	**507**	**155**

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: 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**	**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 then counterparties for retail exposures.

EU CR6 – IRB Approach – Credit risk exposures by exposure class and PD range 2016

			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
Institute exposures	IRB-F	0.00 to <0.15	16 900	6 042	41.64%	16 621	0.08%	86	34.81%	2.5	4 127	24.83%	4	0
Institute exposures	IRB-F	0.15 to <0.25	1 418	3 178	48.70%	3 121	0.21%	31	44.46%	2.5	1 616	51.77%	3	0
Institute exposures	IRB-F	0.25 to <0.50												
Institute exposures	IRB-F	0.50 to <0.75	23	291	44.51%	152	0.51%	26	45.00%	2.5	148	97.33%	0	0
Institute exposures	IRB-F	0.75 to <2.50	25	188	15.99%	64	1.24%	25	45.00%	2.5	81	125.86%	0	0
Institute exposures	IRB-F	2.50 to <10.00	8	154	43.21%	75	2.55%	11	45.00%	2.5	119	159.41%	1	0
Institute exposures	IRB-F	10.00 to <100.00	18	36	41.58%	33	23.61%	16	45.00%	2.5	86	262.49%	3	0
Institute exposures	IRB-F	100.00 (Default)												
Institute exposures	**IRB-F**	**Subtotal**	**18 390**	**9 889**	**43.53%**	**20 066**	**0.14%**	**195**	**36.47%**	**2.5**	**6 176**	**30.78%**	**11**	**0**
Corporate exposures	IRB-F	0.00 to <0.15	47 715	65 267	61.08%	69 049	0.04%	1 962	37.73%	2.5	11 357	16.45%	13	0
Corporate exposures	IRB-F	0.15 to <0.25	11 809	39 285	59.54%	33 696	0.20%	2 263	43.31%	2.5	14 523	43.10%	29	0
Corporate exposures	IRB-F	0.25 to <0.50	5 242	8 962	56.66%	9 135	0.46%	1 506	35.61%	2.5	4 838	52.96%	15	0
Corporate exposures	IRB-F	0.50 to <0.75	479	71	58.41%	528	0.64%	134	24.55%	2.5	166	31.50%	1	0
Corporate exposures	IRB-F	0.75 to <2.50	2 023	12 795	9.36%	3 031	0.87%	858	41.01%	2.5	2 519	83.13%	13	0
Corporate exposures	IRB-F	2.50 to <10.00	820	1 876	55.03%	1 797	4.02%	272	43.18%	2.5	2 582	143.73%	40	8
Corporate exposures	IRB-F	10.00 to <100.00	121	43	61.94%	135	37.70%	62	40.55%	2.5	186	138.39%	9	3
Corporate exposures	IRB-F	100.00 (Default)	799	54	64.53%	829	100.00%	58	42.92%	2.5	0	0.00%	356	245
Corporate exposures	**IRB-F**	**Subtotal**	**69 009**	**128 353**	**55.05%**	**118 198**	**0.94%**	**7 114**	**39.30%**	**2.5**	**36 172**	**30.60%**	**474**	**257**
Corporate exposures	IRB-A	0.00 to <0.15	583 407	134 991	26.98%	597 283	0.04%	27 476	21.62%	3.2	46 312	7.75%	56	0
Corporate exposures	IRB-A	0.15 to <0.25	136 810	65 147	22.87%	147 808	0.20%	9 536	30.26%	2.6	37 672	25.49%	83	0
Corporate exposures	IRB-A	0.25 to <0.50	42 270	20 597	26.59%	45 907	0.46%	4 224	33.76%	3.0	21 912	47.73%	66	0
Corporate exposures	IRB-A	0.50 to <0.75	27 744	1 656	26.39%	27 757	0.64%	2 587	25.95%	2.6	10 087	36.34%	46	0
Corporate exposures	IRB-A	0.75 to <2.50	24 031	13 073	23.50%	25 333	0.87%	2 795	37.23%	2.5	18 385	72.58%	104	0
Corporate exposures	IRB-A	2.50 to <10.00	11 478	7 448	21.43%	11 758	4.41%	1 246	34.47%	2.7	10 794	91.80%	188	63
Corporate exposures	IRB-A	10.00 to <100.00	6 614	461	24.21%	6 502	23.31%	427	35.21%	2.5	9 696	149.12%	368	176
Corporate exposures	IRB-A	100.00 (Default)	5 634	394	24.99%	5 681	100.00%	328	41.76%	1.9	7 234	127.33%	2 930	2 895
Corporate exposures	**IRB-A**	**Subtotal**	**837 989**	**243 766**	**25.48%**	**868 029**	**0.97%**	**48 618**	**24.73%**	**3.0**	**162 092**	**18.67%**	**3 840**	**3 133**
Corporate exposures	Total	0.00 to <0.15	631 122	200 258	38.10%	666 332	0.04%	28 271	23.28%	3.1	57 669	8.65%	69	0
Corporate exposures	Total	0.15 to <0.25	148 619	104 432	36.66%	181 504	0.19%	10 505	32.68%	2.6	52 194	28.76%	112	0
Corporate exposures	Total	0.25 to <0.50	47 512	29 559	35.71%	55 041	0.42%	4 894	34.07%	2.9	26 750	48.60%	80	0
Corporate exposures	Total	0.50 to <0.75	28 224	1 727	27.71%	28 284	0.64%	2 631	25.92%	2.6	10 253	36.25%	47	0
Corporate exposures	Total	0.75 to <2.50	26 054	25 868	16.50%	28 363	1.09%	3 209	37.64%	2.5	20 905	73.70%	117	0
Corporate exposures	Total	2.50 to <10.00	12 298	9 324	28.19%	13 555	4.49%	1 386	35.63%	2.7	13 376	98.68%	228	70
Corporate exposures	Total	10.00 to <100.00	6 735	503	27.40%	6 637	15.61%	457	35.32%	2.5	9 882	148.90%	377	179
Corporate exposures	Total	100.00 (Default)	6 433	448	29.73%	6 510	100.00%	352	41.91%	2.0	7 234	111.11%	3 285	3 140
Corporate exposures	**Total**	**Subtotal**	**906 998**	**372 119**	**35.68%**	**986 227**	**0.96%**	**51 701**	**26.48%**	**2.9**	**198 264**	**20.10%**	**4 314**	**3 390**
Corporate exposures: SMEs	IRB-F	0.00 to <0.15	14 298	5 838	70.07%	11 552	0.04%	1 576	30.08%	2.5	1 036	8.97%	1	0
Corporate exposures: SMEs	IRB-F	0.15 to <0.25	3 741	2 320	61.49%	5 061	0.17%	1 773	34.93%	2.5	1 264	24.98%	3	0
Corporate exposures: SMEs	IRB-F	0.25 to <0.50	1 765	1 054	54.42%	2 115	0.37%	1 222	35.64%	2.5	815	38.55%	3	0
Corporate exposures: SMEs	IRB-F	0.50 to <0.75	404	71	58.41%	451	0.64%	132	28.56%	2.5	165	36.56%	1	0
Corporate exposures: SMEs	IRB-F	0.75 to <2.50	619	538	57.51%	906	1.27%	671	37.83%	2.5	590	65.08%	4	0
Corporate exposures: SMEs	IRB-F	2.50 to <10.00	332	154	69.65%	391	4.22%	213	36.74%	2.5	391	99.96%	9	4
Corporate exposures: SMEs	IRB-F	10.00 to <100.00	121	15	79.63%	120	20.96%	55	40.89%	2.5	157	131.02%	8	3
Corporate exposures: SMEs	IRB-F	100.00 (Default)	429	35	55.29%	443	100.00%	51	42.79%	2.5	0	0.00%	190	101
Corporate exposures: SMEs	**IRB-F**	**Subtotal**	**21 709**	**10 025**	**65.64%**	**21 039**	**2.48%**	**5 692**	**32.56%**	**2.5**	**4 418**	**21.00%**	**219**	**108**

EU CR6 – IRB Approach – Credit risk exposures by exposure class and PD range 2016

			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-A	0.00 to <0.15	438 080	27 572	39.25%	438 388	0.04%	26 355	18.69%	3.5	26 760	6.10%	35	0
Corporate exposures: SMEs	IRB-A	0.15 to <0.25	91 634	13 891	39.03%	96 324	0.18%	8 483	28.55%	2.7	20 381	21.16%	49	0
Corporate exposures: SMEs	IRB-A	0.25 to <0.50	22 061	5 698	42.47%	24 016	0.35%	3 746	30.81%	3.2	8 306	34.59%	27	0
Corporate exposures: SMEs	IRB-A	0.50 to <0.75	21 110	516	39.49%	20 733	0.63%	2 528	25.96%	2.8	7 020	33.86%	34	0
Corporate exposures: SMEs	IRB-A	0.75 to <2.50	10 850	2 889	39.25%	10 727	1.27%	2 428	37.55%	2.9	7 144	66.60%	51	0
Corporate exposures: SMEs	IRB-A	2.50 to <10.00	8 369	882	38.28%	8 281	5.12%	1 160	33.45%	2.8	6 499	78.48%	129	42
Corporate exposures: SMEs	IRB-A	10.00 to <100.00	4 225	186	27.85%	4 041	19.53%	409	33.93%	2.2	4 695	116.17%	202	84
Corporate exposures: SMEs	IRB-A	100.00 (Default)	3 316	43	24.86%	3 290	100.00%	309	44.88%	2.3	5 503	167.25%	1 587	1 553
Corporate exposures: SMEs	**IRB-A**	**Subtotal**	**599 646**	**51 676**	**39.48%**	**605 800**	**0.81%**	**45 417**	**21.77%**	**3.3**	**86 308**	**14.25%**	**2 115**	**1 678**
Corporate exposures: SMEs	Total	0.00 to <0.15	452 378	33 410	44.64%	449 941	0.04%	26 903	18.98%	3.4	27 797	6.18%	37	0
Corporate exposures: SMEs	Total	0.15 to <0.25	95 375	16 211	42.24%	101 384	0.18%	9 152	28.87%	2.7	21 645	21.35%	52	0
Corporate exposures: SMEs	Total	0.25 to <0.50	23 826	6 752	44.34%	26 130	0.35%	4 245	31.20%	3.2	9 121	34.91%	29	0
Corporate exposures: SMEs	Total	0.50 to <0.75	21 514	588	41.78%	21 184	0.64%	2 572	26.02%	2.8	7 185	33.92%	35	0
Corporate exposures: SMEs	Total	0.75 to <2.50	11 469	3 427	42.12%	11 634	1.27%	2 724	37.57%	2.9	7 734	66.48%	56	0
Corporate exposures: SMEs	Total	2.50 to <10.00	8 702	1 036	42.94%	8 672	4.42%	1 260	33.60%	2.8	6 890	79.45%	139	46
Corporate exposures: SMEs	Total	10.00 to <100.00	4 346	201	31.67%	4 161	14.08%	434	34.13%	2.2	4 852	116.60%	210	87
Corporate exposures: SMEs	Total	100.00 (Default)	3 745	78	38.49%	3 733	100.00%	329	44.63%	2.3	5 503	147.39%	1 777	1 653
Corporate exposures: SMEs	**Total**	**Subtotal**	**621 355**	**61 701**	**43.73%**	**626 839**	**0.87%**	**47 616**	**22.13%**	**3.2**	**90 726**	**14.47%**	**2 334**	**1 786**
Retail exposures	IRB-A	0.00 to <0.15	764 593	37 468	101.31%	802 655	0.07%	1 762 891	16.22%		26 938	3.36%	104	0
Retail exposures	IRB-A	0.15 to <0.25	0	2 716	100.00%	2 716	0.16%	1 301	19.00%		186	6.84%	1	0
Retail exposures	IRB-A	0.25 to <0.50	119 205	10 793	91.46%	129 114	0.36%	521 153	23.45%		19 344	14.98%	112	0
Retail exposures	IRB-A	0.50 to <0.75	2 339	358	48.41%	2 512	0.60%	40 480	44.42%		965	38.42%	6	0
Retail exposures	IRB-A	0.75 to <2.50	25 895	3 518	76.70%	28 697	1.16%	261 390	29.57%		9 680	33.73%	104	4
Retail exposures	IRB-A	2.50 to <10.00	9 413	1 158	64.82%	10 188	5.33%	127 683	27.58%		6 485	63.65%	156	34
Retail exposures	IRB-A	10.00 to <100.00	3 748	250	55.12%	3 890	17.75%	39 118	27.13%		3 989	102.53%	200	49
Retail exposures	IRB-A	100.00 (Default)	2 495	2	105.27%	2 498	100.00%	21 016	40.91%		4 812	192.62%	1 066	1 051
Retail exposures	**IRB-A**	**Subtotal**	**927 687**	**56 263**	**96.52%**	**982 270**	**0.52%**	**2 774 609**	**17.86%**		**72 398**	**7.37%**	**1 749**	**1 138**
Retail exposures: Secured by real estate property	IRB-A	0.00 to <0.15	739 120	16 638	99.99%	755 755	0.07%	1 043 278	15.06%		23 570	3.12%	92	0
Retail exposures: Secured by real estate property	IRB-A	0.15 to <0.25	0	2 716	100.00%	2 716	0.16%	1 301	19.00%		186	6.84%	1	0
Retail exposures: Secured by real estate property	IRB-A	0.25 to <0.50	98 060	467	99.80%	98 526	0.35%	164 979	19.75%		12 694	12.88%	71	0
Retail exposures: Secured by real estate property	IRB-A	0.50 to <0.75	1 383	2	91.59%	1 385		4 454	52.00%		636	45.94%	4	0
Retail exposures: Secured by real estate property	IRB-A	0.75 to <2.50	14 574	64	99.12%	14 637	0.91%	21 317	22.20%		4 181	28.56%	35	0
Retail exposures: Secured by real estate property	IRB-A	2.50 to <10.00	5 415	15	99.14%	5 430	4.39%	9 323	20.01%		4 009	73.84%	66	13
Retail exposures: Secured by real estate property	IRB-A	10.00 to <100.00	2 516	7	99.51%	2 523	13.79%	4 540	19.85%		2 783	110.33%	81	17
Retail exposures: Secured by real estate property	IRB-A	100.00 (Default)	929	2	100.00%	931	100.00%	1 255	21.96%		1 825	196.04%	123	120
Retail exposures: Secured by real estate property	**IRB-A**	**Subtotal**	**861 996**	**19 911**	**99.98%**	**881 903**	**0.31%**	**1 250 025**	**15.83%**		**49 884**	**5.66%**	**471**	**150**

EU CR6 – IRB Approach – Credit risk exposures by exposure class and PD range 2016

			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: Other	IRB-A	0.00 to <0.15	25 473	20 829	102.36%	46 899	0.07%	719 613	34.86%		3 368	7.18%	12	0
Retail exposures: Other	IRB-A	0.15 to <0.25												
Retail exposures: Other	IRB-A	0.25 to <0.50	21 145	10 326	91.08%	30 588	0.37%	356 174	35.37%		6 650	21.74%	41	0
Retail exposures: Other	IRB-A	0.50 to <0.75	956	356	48.18%	1 127	0.65%	36 026	35.11%		329	29.18%	2	0
Retail exposures: Other	IRB-A	0.75 to <2.50	11 321	3 455	76.29%	14 060	1.31%	240 073	37.24%		5 500	39.12%	70	4
Retail exposures: Other	IRB-A	2.50 to <10.00	3 998	1 143	64.36%	4 759	5.12%	118 360	36.21%		2 476	52.02%	90	22
Retail exposures: Other	IRB-A	10.00 to <100.00	1 233	243	53.82%	1 368	20.80%	34 578	40.56%		1 205	88.15%	119	32
Retail exposures: Other	IRB-A	100.00 (Default)	1 565	0	130.07%	1 567	100.00%	19 761	52.18%		2 986	190.59%	943	931
Retail exposures: Other	**IRB-A**	**Subtotal**	**65 691**	**36 353**	**94.63%**	**100 367**	**2.43%**	**1 524 584**	**35.76%**		**22 514**	**22.43%**	**1 278**	**989**
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	1 340			1 340		3			4 959	370.00%	32	0
Equity exposures	IRB-F	**Subtotal**	1 340			1 340		3			4 959	370.00%	32	0
Total	IRB-F	0.00 to <0.15	64 615	71 310	59.43%	85 670	0.05%	2 048	37.16%	2.5	15 484	18.07%	16	0
Total	IRB-F	0.15 to <0.25	13 227	42 463	58.73%	36 817	0.20%	2 294	43.41%	2.5	16 139	43.83%	32	0
Total	IRB-F	0.25 to <0.50	5 242	8 962	56.66%	9 135	0.45%	1 506	35.61%	2.5	4 838	52.96%	15	0
Total	IRB-F	0.50 to <0.75	502	362	47.25%	679	0.61%	160	29.12%	2.5	314	46.21%	1	0
Total	IRB-F	0.75 to <2.50	2 047	12 983	9.45%	3 095	1.06%	883	41.09%	2.5	2 600	84.02%	13	0
Total	IRB-F	2.50 to <10.00	828	2 030	54.13%	1 871	4.99%	283	43.25%	2.5	2 701	144.36%	41	8
Total	IRB-F	10.00 to <100.00	138	79	52.60%	167	16.41%	78	41.42%	2.5	272	162.59%	11	3
Total	IRB-F	100.00 (Default)	799	54	64.53%	829	100.00%	58	42.92%	2.5	0	0.00%	356	245
Total	IRB-F	Other	1 340			1 340		3			4 959	370.00%	32	0
Total	**IRB-F**	**Subtotal**	**88 739**	**138 242**	**54.23%**	**139 604**	**0.82%**	**7 311**	**38.52%**	**2.5**	**47 306**	**33.89%**	**517**	**257**
Total	IRB-A	0.00 to <0.15	1 347 999	172 458	43.13%	1 399 937	0.06%	1 790 367	18.52%	1.4	73 250	5.23%	160	0
Total	IRB-A	0.15 to <0.25	136 810	67 863	25.95%	150 524	0.19%	10 837	30.06%	2.5	37 857	25.15%	84	0
Total	IRB-A	0.25 to <0.50	161 475	31 390	48.90%	175 021	0.37%	525 377	26.15%	0.8	41 256	23.57%	177	0
Total	IRB-A	0.50 to <0.75	30 083	2 013	30.30%	30 269	0.63%	43 067	27.48%	2.4	11 052	36.51%	52	0
Total	IRB-A	0.75 to <2.50	49 926	16 591	34.78%	54 030	1.13%	264 185	33.16%	1.2	28 066	51.95%	208	4
Total	IRB-A	2.50 to <10.00	20 891	8 606	27.27%	21 947	4.84%	128 929	31.27%	1.4	17 279	78.73%	344	97
Total	IRB-A	10.00 to <100.00	10 363	711	35.09%	10 392	16.41%	39 545	32.18%	1.6	13 685	131.68%	569	224
Total	IRB-A	100.00 (Default)	8 129	397	25.46%	8 179	100.00%	21 344	41.50%	1.3	12 045	147.27%	3 995	3 946
Total	IRB-A	Other												
Total	**IRB-A**	**Subtotal**	**1 765 676**	**300 029**	**38.80%**	**1 850 299**	**0.73%**	**2 823 227**	**21.09%**	**1.4**	**234 491**	**12.67%**	**5 589**	**4 272**
Total	Total	0.00 to <0.15	1 412 615	243 768	47.90%	1 485 608	0.06%	1 791 248	19.60%	1.4	88 734	5.97%	176	0
Total	Total	0.15 to <0.25	150 037	110 325	38.57%	187 341	0.19%	11 837	32.68%	2.5	53 996	28.82%	115	0
Total	Total	0.25 to <0.50	166 717	40 352	50.62%	184 155	0.38%	526 047	26.62%	0.9	46 094	25.03%	192	0
Total	Total	0.50 to <0.75	30 585	2 375	32.88%	30 948	0.63%	43 137	27.52%	2.4	11 366	36.73%	54	0
Total	Total	0.75 to <2.50	51 973	29 573	23.66%	57 124	1.13%	264 624	33.59%	1.3	30 666	53.68%	221	4
Total	Total	2.50 to <10.00	21 719	10 636	32.40%	23 818	4.85%	129 080	32.21%	1.5	19 980	83.89%	384	105
Total	Total	10.00 to <100.00	10 501	790	36.83%	10 560	16.41%	39 591	32.33%	1.6	13 957	132.17%	580	228
Total	Total	100.00 (Default)	8 928	451	30.13%	9 008	100.00%	21 368	41.63%	1.4	12 045	133.71%	4 351	4 191
Total	Total	Other	1 340			1 340		3			4 959	370.00%	32	0
	Total (all portfolios)		**1 854 415**	**438 271**	**43.67%**	**1 989 903**	**0.74%**	**2 826 506**	**22.31%**	**1.5**	**281 797**	**14.16%**	**6 106**	**4 529**

[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 then counterparties for retail exposures.

Development of risk exposure amount in 2017

In 2017, the Bank's risk exposure amount for credit risk, including CVA risk, increased by SEK 49.4 billion. Of this total, the standardised approach accounted for an increase of SEK 2.9 billion, and CVA risk for a decrease of SEK 2.5 billion. Other changes were related to the IRB Approach and are described in more detail in the text and table below.

The largest individual increase in the risk-weighted exposure amount during the year came from new PD models for corporates. The new models resulted in an increase of SEK 31.6 billion in the risk-weighted exposure amount. The combined effect of the annual validation of risk estimates, excluding the effects of the new PD models for corporates and new models for sovereigns, was a decrease of SEK 3.2 billion in the risk-weighted exposure amount.

Additionally, the approval of the IRB Approach for sovereign exposures resulted in an increase of SEK 9.7 billion in the risk-weighted exposure amount.

The fact that new business was done with counterparties who had risk weights that were higher than the average in the Bank's existing credit portfolio (known as volume migration) caused an increase of SEK 4.0 billion. The net effect of existing counterparties having migrated between risk classes (referred to as rating migration) – 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 4.2 billion in 2017. These increases were offset to some extent by the greater impact of the use of collateral, which reduced the risk-weighted exposure amount by SEK 3.6 billion. Other effects related to asset quality caused an increase of SEK 0.6 billion.

The effect of exchange rate movements led to a decrease of SEK 4.1 billion in the risk exposure amount.

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 0.4 billion.

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

The following table shows the changes from year-end 2016 to year-end 2017 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 year. The change is primarily driven by recalibriation of models and asset growth.

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**	**24.0**
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	Acquisititions and disposals	0.0	0.0
7	Foreign exchange movements	-4.1	-0.3
8	Other	-0.4	0.0
9	**RWAs as at the end of the reporting period**	**348.4**	**28.0**

EU CR8 – RWA flow statements of credit risk exposures under the IRB Approach 2016

	SEK bn	a RWA amounts	b Capital requirements
1	**RWAs as at the end of the previous reporting period**	**315.3**	**25.2**
2	Asset size	-9.5	-0.8
3	Asset quality	-9.7	-0.8
4	Model updates	4.7	0.4
5	Methodology and policy	0.0	0.0
6	Acquisititions and disposals	0.0	0.0
7	Foreign exchange movements	6.1	0.5
8	Other	-7.5	-0.6
9	**RWAs as at the end of the reporting period**	**299.4**	**24.0**

Figure 46 Proportion of counterparties migrating between internal risk classes, corporate exposures, 2013–2017

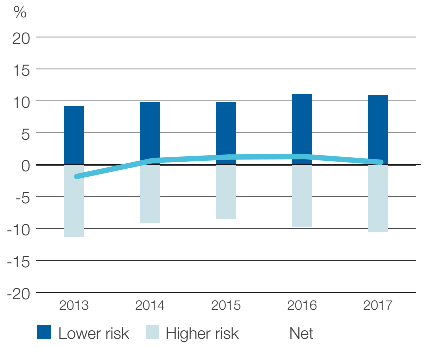


Figure 47 Proportion of counterparties migrating between internal risk classes, retail exposures – small companies, 2013–2017

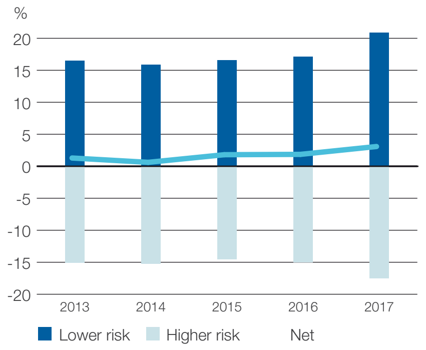
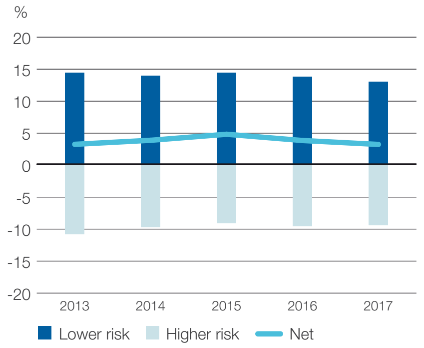


Table 48 Proportion of counterparties whose internal rating migrates, retail exposures – private individuals, 2013-2017



Migrations

Trends in the quality of the credit portfolio can be identified to some extent 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 2017, migration for corporate counterparties measured in volume was negative, while it was positive in terms of the number of counterparties. This difference was caused by some counterparties with larger credit volumes having experienced some negative migration.

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 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.

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.

For corporate exposures, the proportion of customers assigned to a different risk class (referred to as gross migration) is stable year on year. In 2013, net migration was slightly negative, but in subsequent years net migration has been positive; that is, the number of corporate customers whose risk rating improved was greater than the number whose risk rating declined. However, this trend toward lower risk was weak in 2017. Migration occurred mainly between risk classes which indicate lower than normal risk. Migration to risk classes indicating a more significant risk of default continued to be limited.

Net migration for small enterprises continued shifting toward lower risk, accelerating slightly in 2017. The expanded use of model-based updating of internal ratings for Swedish joint stock companies during the year caused more extensive gross migration and also influenced net migration.

For private individuals, the underlying trend in migration was stable over time. During the past two years, the predominantly positive trend in migration has slowed somewhat.

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 20 million (22). 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 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**	**-**

Securitisation positions in the non-trading book by risk weight 2016[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 2016 or 2017.
[2] The exposures have an external rating from Standard & Poors, Moody's and Fitch respectively.

COUNTERPARTY RISKS

Counterparty 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 risks.

In calculating the capital requirement and economic capital (EC), counterparty 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 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 risk

Counterparty 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 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 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 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 34 million (75).

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 114 million (72) 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 391 million (594) 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.

Setting a limit for the payment risk is a vital part of Handelsbanken's constant aim to limit risks. This includes developing technical solutions which reduce the period of time during which there is a payment risk. In these efforts, Handelsbanken co-operates with various banking sector clearing institutions. The Bank has also established collaborations with the banks considered to be the strongest and the most creditworthy.

Handelsbanken participates in clearing collaborations such as CLS (formerly Continuous Linked Settlement) for currency trading. Handelsbanken is part-owner of CLS together with around 60 of the largest international FX banks. Handelsbanken is also a partner and direct member of EBA (Euro Banking Association) and its euro payment system.

Table 50 Counterparty risk broken down into exposure classes, exposure amounts and risk-weighted exposure amounts, IRB Approach
Exposure amount broken down into derivatives, equity loans and securities financing transactions.

Counterparty risk broken down into exposure classes, exposure amounts and risk-weighted exposure amounts, IRB Approach	2017		2016	
SEK m	Exposure amount	Risk-weighted exposure amount	Exposure amount	Risk-weighted exposure amount
Exposure classes IRB Approach				
Institutional exposures	55 891	8 697	85 119	11 222
Corporate exposures	17 180	3 400	22 670	3 941
Sovereign exposures	8 223	183		
Total IRB Approach	**81 294**	**12 280**	**107 789**	**15 163**

Table 51 Counterparty risk broken down into exposure classes, exposure values and risk-weighted exposure amounts, standardised approach
Exposure value broken down into derivatives, equity loans and securities financing transactions.

Counterparty risk broken down into exposure classes, exposure values and risk-weighted exposure amounts, standardised approach	2017		2016	
SEK m	Exposure value	Risk-weighted exposure amount	Exposure value	Risk-weighted exposure amount
Exposure classes standardised approach				
Sovereign and central bank exposures	-	-	3 132	67
Other	6 134	352	5 200	468
of which cleared via central counterparties	*5 708*	*114*	*3 577*	*72*
Total standardised approach	**6 134**	**352**	**8 332**	**535**
Total IRB and standardised approach	**87 428**	**12 632**	**116 121**	**15 698**

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

Counterparty risks in derivative contracts excluding standard add-ons for potential future exposure SEK m	2017	2016
Positive gross market value for derivative contracts	76 892	109 686
Netting gains[1]	37 660	47 697
Current set-off exposure	39 232	61 989
Collateral[1]	30 023	42 238
Net credit exposure for derivatives	9 209	19 751

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

Table 53 Counterparty risks in derivative contracts including potential future exposure

Counterparty 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
Institutional 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*

Counterparty risks in derivative contracts including potential future exposure 2016 SEK m	Current set-off exposure	Potential future exposure	Exposure amount	Risk-weighted exposure amount	Capital requirement
Sovereign exposures	2 389	1 167	3 556	67	5
Institutional exposures	48 107	25 434	73 541	10 652	852
Corporate exposures	11 256	3 972	15 228	3 890	311
Others	238	186	424	373	30
Total	**61 990**	**30 759**	**92 749**	**14 982**	**1 198**
of which operations in the trading book	*17 349*	*12 275*	*29 624*	*5 688*	*455*

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, and within Group Treasury, through the Bank's funding.

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.

At Handelsbanken, market risks arise when the Bank's customers demand services for which the Bank must have flexible funding. The Bank can also obtain funding on other markets than those where it has its lending so that it can diversify its sources of funding. The funding can have a different interest-fixing period than the assets which are to be funded. Market risks can also arise in Group Treasury's liquidity portfolio, which can be converted into liquidity at short notice in conjunction with possible disruptions in the markets where the Bank conducts its operations. The portfolio secures the Group's payments in the daily clearing operations and forms part of the Bank's liquidity reserve.

Market risks also arise to meet customers' demand for financial instruments with exposure to the fixed income, currency, equity or commodity markets. As a consequence, it may be necessary for the Bank to hold certain positions. This situation arises, for example, when the Bank has undertaken to quote prices in its role as a market maker.

Market risks in the Bank's business operations arise – and thus are managed – mainly at Group Treasury and Handelsbanken Capital Markets, although they also exist at Handelsbanken Liv. The market risks at Handelsbanken Liv are described in a separate section. Consequently, the information on market risks given in this section refers to risks excluding Handelsbanken Liv.

MARKET RISK STRATEGY

Handelsbanken has a restrictive view of market risks. Essentially, market risks in the banking operations are only taken as part of meeting customers' investment and risk management needs. Market risks must be limited by matching cash flows and interest-fixing periods, hedging open positions and taking other actions to limit risk.

Market risks at Handelsbanken have decreased further in recent years, from already low levels to very low at present. This work has been under way for a long time. It started before the financial crisis broke out and before the regulations started to assign the importance to market risks that they do today. One result of the low market risks is that a much smaller part of the Bank's earnings come from net gains/losses on financial transactions.

ORGANISATIONAL STRUCTURE

The Head of Group Treasury, who reports to the CFO, has operational responsibility for managing interest rate, currency and liquidity risks. The Bank's limit system restricts the size of the exposure to market risks. Measurement methods and limits are established by the Board. The limits for interest rate, currency and liquidity risk are allocated by the CEO and CFO to the Head of Group Treasury, who in turn allocates these to the business-operating units. Limits for equity price risk and commodity price risk are allocated directly to the Head of Business Support Capital Markets by the CFO.

The CEO and CFO also decide on supplementary risk metrics, limits and detailed guidelines. The supplementary limit measures aim to reduce the Bank's sensitivity to volatility changes in the financial markets as well as to limit the risks of specific holdings and the liquidity risk per currency. These measures also limit the risks from a maturity perspective. The CFO, CEO and Board continually receive reports on the market risks and utilisation of the limits.

Figure 54 Decision levels for market and liquidity risks

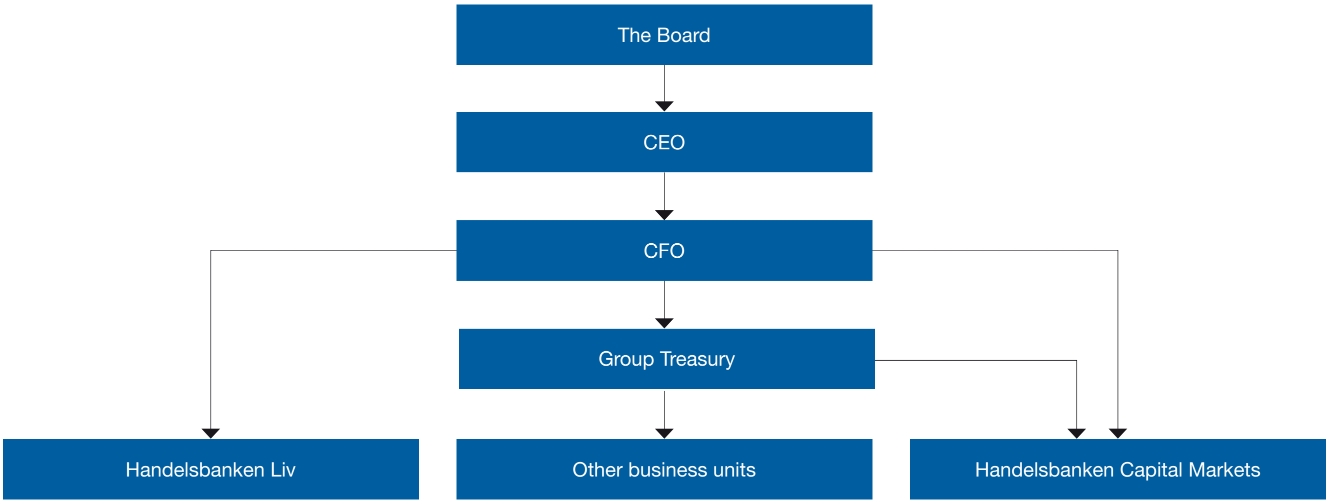


Table 55 VaR for trading book – Handelsbanken Capital Markets and Group Treasury[1]

VaR for trading book – Handelsbanken Capital Markets and Group Treasury[1]

	Total		Equities		Fixed income		Currency		Commodities	
SEK m	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Average	13	12	1	1	14	12	3	4	1	1
Maximum	21	20	1	4	22	20	6	10	4	6
Minimum	8	6	0	0	9	6	1	1	0	0
Year-end	18	7	0	1	19	6	2	2	0	2

[1] Portfolios classified as trading book are subject to special instructions and guidelines.

Table 56 Worst outcome in stress test for trading book – Handelsbanken Capital Markets and Group Treasury

Worst outcome in stress test for trading book – Handelsbanken Capital Markets and Group Treasury SEK m	2017	2016
Average	103	98
Maximum	249	253
Minimum	39	29
Year-end	186	61

MARKET RISK AT HANDELSBANKEN

Market risk is measured using several different methods. The sensitivity measures used show which changes in value would occur in the event of pre-defined changes in prices and volatilities. Position-related risk measures and probability-based Value at Risk models (VaR) are also used.

VaR

VaR is calculated for the portfolios at Handelsbanken Capital Markets and Group Treasury which are classified as trading book. VaR is a probability-based measure and expresses the losses in Swedish kronor that may arise in risk positions due to movements in the underlying markets over a specified holding period and for a given confidence level. VaR is calculated for individual classes of risk and at portfolio level with a 99-per cent confidence level and a one-day holding period. The method means that different risk classes can be handled in a uniform way so that they can be compared and aggregated into a total market risk. The overall risk in the portfolios classified as trading book was SEK 18 million (7) at year-end. VaR is reported on a regular basis to the CFO, CEO and Board.

The VaR model does not always identify risks associated with extreme market fluctuations. The calculations are therefore supplemented with regular stress tests where the portfolios are tested against scenarios based on all events in the financial markets since 1994. The results of these stress tests are also reported to the CFO, CEO and the Board's risk committee on a regular basis.

Interest rate risk

Interest rate risk mainly arises at Handelsbanken Capital Markets, Group Treasury and in the lending operations. Interest rate risk is measured in several ways at the Bank. General interest rate risk is measured daily, and limits are set as the absolute sum of the least favourable changes in fair value per currency in the case of substantial instantaneous upward or downward parallel shifts of 1 percentage point for all interest rates. At year-end, the Bank's total general interest rate risk was SEK 826 million (1,401). Interest-fixing periods for deposits that lack a contractual maturity are established using an internal method. The basic assumption for such deposits is the shortest possible interest-fixing period, and adjustments are made only for that part that can be regarded as stable and insensitive to interest-rate movements based on historical observations. The risk measure includes interest-bearing items measured at fair value as well as items not measured at fair value and is therefore not appropriate when assessing the impact from profit/loss on the balance sheet and income statement.

Specific interest rate risk is measured and limits set using sensitivity to changes in credit spreads, that is, the difference between the interest on the current holding and the yield on a government bond with the same maturity. This risk mainly arises at Handelsbanken Capital Markets and in Group Treasury's liquidity portfolio. The risk is measured and limits set on the basis of different rating classes and is calculated as the least favourable change in market value in the case of an upward or downward shift of one basis point in all credit spreads. This is performed for each individual counterparty, and the outcomes are summed as an absolute total. The total specific interest rate risk at year-end was SEK 8 million (9).

Interest rate risk in the trading book

The trading book at Handelsbanken comprises Capital Markets' and Group Treasury's portfolios that are classified as trading book. The general interest rate risk in the trading book was SEK 62 million (81), and the specific interest rate risk was SEK 6 million (7). Yield curve twist risks, which show changes in the risks in the case of hypothetical changes in various yield curves, are measured and followed up on a regular basis. The non-linear interest rate risk – part of the risk in interest rate options, for example – is measured and a limit set with pre-defined stress scenarios expressed in matrices. This means that the risk is measured as changes in underlying market interest rates and volatilities. VaR and other risk measures are also used for the trading book, supplemented by various stress scenarios.

Interest rate risk in the non-trading book

In the lending operations, interest rate risk arises as a result of the lending partly having different interest-rate fixing periods than the funding. Interest rate risk is mainly managed by means of interest rate swaps. In general, interest rate risk exposure is in markets which are characterised by good liquidity. The general interest rate risk in the non-trading book measured as above was SEK 855 million (1,357), and the specific interest rate risk was SEK 2 million (2).

To estimate the effect of interest rate changes on the income statement, the net interest income effect is also measured. The net interest income effect when interest rates change is measured as the change in net interest income over a 12-month period in the case of a general increase of market rates by 1 percentage point. This effect reflects the differences in interest-rate fixing periods and volume composition between assets, liabilities and derivatives outside the trading book, assuming that the size of the balance sheet is constant. In this calculation, the interest-fixing periods for deposits that lack a contractual maturity are established using an internal method based on historical observations and only adjusting the portion that is stable and insensitive to interest-rate movements. The net interest income effect at year-end was SEK 463 million (1,116).

Table 57 General interest rate risk in the non-trading book

General interest rate risk in the non-trading book **(change in fair value as the worst outcome in the case of a one percentage point parallel shift of all interest rates)** SEK m	**2017**	**2016**
SEK	215	756
DKK	257	166
EUR	102	132
NOK	94	88
USD	100	66
GBP	70	135
Other currencies	17	14
Total	**855**	**1 357**

Table 58 Interest rate adjustment periods for assets and liabilities

The table shows the interest rate adjustment periods for interest-rate related assets and liabilities as at 31 December 2017. Non-interest-bearing assets and liabilities have been excluded.

Interest rate adjustment periods for assets and liabilities 2017 SEK m	**Up to 3 mths**	**3-6 mths**	**6-12 mths**	**1-5 yrs**	**Over 5 yrs**	**Total**
Assets						
Loans	1 435 047	98 532	104 282	388 319	39 581	2 065 761
Banks and other financial institutions	284 029	1 288	35	107	25	285 484
Bonds etc.	96 454	4 469	10 122	55 937	11 625	178 607
Total assets	**1 815 530**	**104 289**	**114 439**	**444 363**	**51 231**	**2 529 852**
Liabilities						
Deposits	919 422	13 693	5 865	2 910	77	941 967
Banks and other financial institutions	164 173	3 288	2 046	2 425	2 888	174 820
Issued securities	483 463	99 089	110 484	559 735	56 719	1 309 490
Other liabilities	-	-	-	-	-	-
Total liabilities	**1 567 058**	**116 070**	**118 395**	**565 070**	**59 684**	**2 426 277**
Off-balance-sheet items	-45 354	-107 034	-15 195	150 987	14 322	-2 274
Difference between assets and liabilities including off-balance-sheet items	203 118	-118 815	-19 151	30 280	5 869	101 301

Interest rate adjustment periods for assets and liabilities 2016 SEK m	**Up to 3 mths**	**3-6 mths**	**6-12 mths**	**1-5 yrs**	**Over 5 yrs**	**Total**
Assets						
Loans	1 302 302	157 537	102 728	369 968	31 087	1 963 622
Banks and other financial institutions	241 937	107	56	16	9	242 125
Bonds etc.	77 861	5 321	6 502	61 447	9 758	160 889
Total assets	**1 622 100**	**162 965**	**109 286**	**431 431**	**40 854**	**2 366 636**
Liabilities						
Deposits	821 371	4 681	2 889	393	2	829 336
Banks and other financial institutions	140 961	31 243	2 148	580	3 848	178 780
Issued securities	418 039	95 677	91 718	601 304	88 427	1 295 165
Other liabilities	-	-	-	-	-	-
Total liabilities	**1 380 371**	**131 601**	**96 755**	**602 277**	**92 277**	**2 303 281**
Off-balance-sheet items	-306 545	-8 166	-18 289	202 900	63 614	-66 486
Difference between assets and liabilities including off-balance-sheet items	-64 816	23 198	-5 758	32 054	12 191	-3 131

Equity price risk

The Bank's equity price risk mainly arises at Handelsbanken Capital Markets through customer trading and in the Bank's own equity holdings.

The risk is measured as the market value change in the Bank's total equity positions in the case of an instantaneous change in equity prices by +/-10 per cent and in volatilities by +/-25 per cent. At year-end, the Bank's worst case outcome for this risk was SEK 93 million (152). The largest exposure in equities comes from the European market.

Equity price risk in the trading book

The equity price risk at Handelsbanken Capital Markets arises in customer-driven equity-related transactions. Additionally, Handelsbanken Capital Markets is a market maker for structured products, which gives rise to equity price risk, both linear and non-linear. The non-linear equity price risk arises via options mainly included in the structured products.

The extent of own position-taking, which arises to meet customers' needs, is restricted by the limits decided by the Bank's Board, CEO and CFO. The Bank limits and measures the equity price risk at Handelsbanken Capital Markets using matrices. The advantage of this method is that it effectively identifies equity price risk including the non-linear risk. VaR as well as other risk measures and stress scenarios are used as a complement when measuring the equity price risk. At year-end, the Bank's VaR for equity price risk in the trading book was SEK 0 million (1).

Equity price risk outside the trading book

The Group's holdings of equities outside the trading book essentially comprise unlisted securities mainly consisting of various types of jointly owned operations related to the Bank's core business. The holdings are classified as available for sale and are measured at fair value in the balance sheet in accordance with accounting regulations. In general, such holdings are valued at the Bank's share of the company's net asset value, or alternatively at the price of the last completed transaction. The equity price risk is very small.

Table 59 Equity price risk

Equity price risk	**Change in volatility**					
SEK m	2017			2016		
Change in equity price	**-25%**	**0%**	**25%**	**-25%**	**0%**	**25%**
10%	117	116	116	161	162	162
-10%	-93	-92	-91	-152	-149	-145

Table 60 Equity exposures outside the trading book

Equity exposures outside the trading book SEK m	**2017**	**2016**
Classified as available for sale	1 174	1 618
of which listed	*4*	-
of which unlisted	*1 170*	*1 618*
Classified as available for sale	1 174	1 618
of which business-related	*1 152*	*1 605*
of which other holdings	*22*	*13*
Fair value reserve at beginning of year	1 035	2 138
Unrealised market value change during the year for remaining and new holdings	-485	773
Realised due to sale and settlements during the period	-3	-1 876
Fair value reserve at year-end	547	1 035
Included in tier 2 capital	0	0

Exchange rate risk

Handelsbanken has home markets outside Sweden and also operations in a number of other countries. Consequently, indirect currency exposure of a structural nature arises, because the Group's accounts are expressed in Swedish kronor. The structural risk is minimised by matching assets and liabilities in the same currency as far as possible. The exchange rate movements that affect the Bank's equity are shown in the table on page 68 of the Annual Report: Statement of changes in equity Group.

The Bank's direct foreign exchange exposure arises as a consequence of customer-driven intra-day trading in the international foreign exchange markets. This trading is conducted at Handelsbanken Capital Markets. The Board, CEO and CFO have set VaR limits for this exchange rate risk.

Some currency exposure also arises in the normal banking operations as part of managing customer payment flows and in funding operations at Group Treasury. The Board, CEO and CFO have set position limits for these risks. At year-end, the aggregate net position was SEK 620 million (689). The exchange rate risk in the Bank does not depend on trends for an individual currency or group of currencies, because the positions are very short and arise in management of customer-driven flows. The total exchange rate risk in the trading book and the non-trading book was SEK 48 million (114), measured as the impact on the Bank of an instantaneous 5 per cent change in the Swedish krona.

Table 61 Exchange rate sensitivity

Exchange rate sensitivity (worst outcome +/-5% change SEK against the respective currency) SEK m	**2017**	**2016**
EUR	21	57
NOK	11	25
DKK	4	6
USD	6	26
GBP	3	2
Other currencies	6	7

Commodity price risk

Exposure in commodity-related instruments only occurs as a result of customer-based trading in the international commodity markets and is restricted by limits decided by the Board, CEO and CFO. Trading in commodities is conducted exclusively at Handelsbanken Capital Markets. Commodity price risk, both linear and non-linear, is measured as the absolute total of risk for all commodities to which the Bank is exposed. At year-end, the commodity price risk was SEK 3 million (6), measured as the maximum loss on price changes up to 20 per cent in underlying commodities and changes in volatility up to 35 per cent. At year-end, the Bank's VaR for commodity price risk was SEK 0 million (2).

Other market risks

Market risk also arises in the Bank's pension system (pension risk). This risk consists mainly of the risk of a decrease in the value of assets held for securing the Bank's pension obligations.

Fair value measurement

The Risk Control Function checks that the Group's financial instruments are valued correctly. This includes responsibility for checking the market data upon which the valuation is based and for ensuring that this check is independent of the risk-taking parties. Sources of market data are independent of the business operations. In the case of market data having been obtained from the business operations, documented controls are performed against external sources and to assess whether the data is reasonable. Market prices and market data for models must be verified at least once a month but are also essentially verified daily. Valuation models are validated by the risk control function which is independent of the developer of the model. The Valuation Committee, whose purpose is to co-ordinate valuation matters in the Handelsbanken Group, fulfils an important function in ensuring that each valuation is correct and adheres to current market practices.

The valuation of financial instruments measured at fair value is performed in accordance with IFRS 13. See note G40 for more information about the assets and liabilities measured at fair value and for additional information on the Bank's valuation process.

Prudent valuation

In accordance with article 105 in CRR, the Bank must calculate additional value adjustments. Article 34 expands the scope, from including only the trading book, to comprising all positions measured at fair value. The requirements and methods for these additional value adjustments were subsequently clarified in the European Commission's Delegated Regulation (EU) 2016/101 with regard to the technical standard under Article 105(14). Handelsbanken applies the core approach as defined in the technical standard for calculating the additional value adjustments for all positions measured at fair value.

CAPITAL REQUIREMENTS FOR MARKET RISK

Handelsbanken uses the standardised approach to calculate the statutory capital requirements for market risk. Based on the standardised approach, the capital requirement for market risk for the consolidated situation was SEK 825 million (873) at the end of 2017. The majority of the capital requirement consists of interest rate risk, which corresponds to SEK 808 million (855).

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 2017.

	EU MR1 – Market risk under the standardised approach	2017		2016	
		a	b	a	b
	SEK m	REA	Capital requirements	REA	Capital requirements
	Outright products				
1	Interest rate risk	10 089	808	10 669	854
1a	*of which general risk*	*7 145*	*572*	*7 474*	*598*
1b	*of which specific risk*	*2 944*	*236*	*3 195*	*256*
2	Equity risk	113	9	54	4
2a	*of which general risk*	*34*	*3*	*12*	*1*
2b	*of which specific risk*	*74*	*6*	*40*	*3*
2c	*of which CIUs*	*5*	*0*	*2*	*0*
3	Foreign exchange risk	-	-	-	-
4	Commodity risk	60	5	113	9
	Options				
7	Scenario approach	48	3	74	6
7a	*of which interest rate risk*	*5*	*0*	*14*	*1*
7b	*of which equity risk*	*43*	*3*	*59*	*5*
7c	*of which foreign exchange risk*	*-*	*-*	*-*	*-*
7d	*of which commodity risk*	*0*	*0*	*1*	*0*
8	Securitisation (specific risk)	-	-	-	-
9	Settlement risk	0	0	0	0
10	**Total**	**10 310**	**825**	**10 910**	**873**

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 mature without being affected by unacceptable costs or losses.

In the wake of the financial crisis, a number of new regulations have been introduced. The Bank has implemented a number of measures, at its own initiative, for some time and thus has long met these requirements. The measures include a centralised treasury function with overall responsibility for all funding and liquidity risk management, an increased proportion of long-term funding, and internal prices that reflect the market price, liquidity risk and maturity. In addition, the transparency related to funding, liquidity risk and the proportion of pledged assets has been considerably increased.

FUNDING STRATEGY

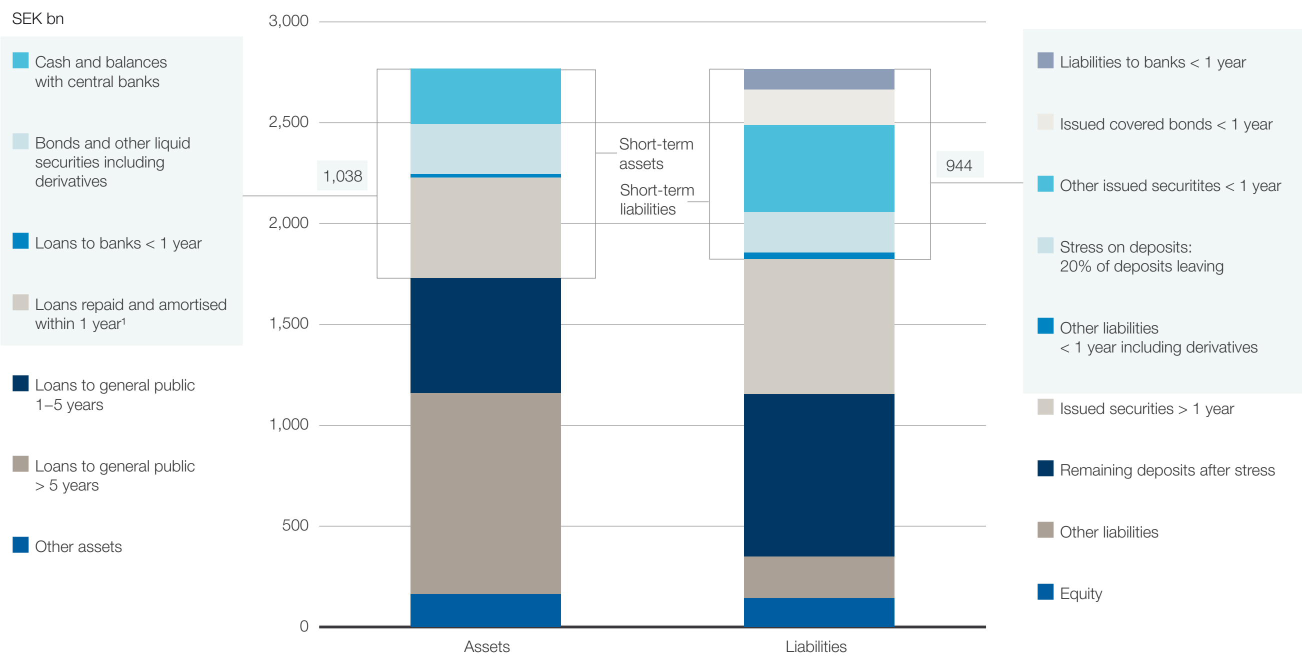
Handelsbanken has a low tolerance of liquidity risks and works actively to minimise them in total and in each individual currency. The aim is to have good access to liquidity, a low level of variation in income and a considerable capacity to meet customers' funding needs, even in difficult times. This is achieved by maintaining a good matching of incoming and outgoing cash flows over time in all currencies essential to the Bank and by maintaining large liquidity reserves of good quality. The Bank thus minimises the economic risks in funding and can thereby decide on stable and long-term internal interest rates to the business-operating units.

Furthermore, the Bank aims for breadth in its funding programmes and their use, so that no type of investor is treated disadvantageously. This ensures that the Bank can keep its core business intact for a long period of time, even if there is extensive disruption in the financial markets.

The starting point of this work is a well-matched balance sheet, where illiquid assets are financed using stable funding. The illiquid assets comprise credits to households and companies; these credits constitute the Bank's core business. The long-term stable funding of these assets consists of covered bonds issued by Stadshypotek, senior bonds issued by Handelsbanken, deposits from households and a certain amount of deposits from companies, subordinated liabilities and equity. Part of the core operations are short-term lending to households and companies and on the liabilities side, some of the deposits for these customers are shorter term.

A balance sheet is a snapshot of assets and liabilities. To ensure that the Bank's obligations towards customers and investors are fulfilled, it is important to adopt a future-oriented perspective in funding and liquidity risk management. The balance sheet is therefore structured in such a way that the participants of the real economy in the form of companies and households and their needs for credit can be supported even during lengthy periods of stress in the financial markets. Current assets cover current liabilities by a good margin. Figure 63 describes the balance sheet in a stressed scenario where 20 per cent of deposits are

Figure 63 Composition of the balance sheet from a maturity perspective



[1] Scheduled amortisations, contractual maturities and estimated additional loan repayments.

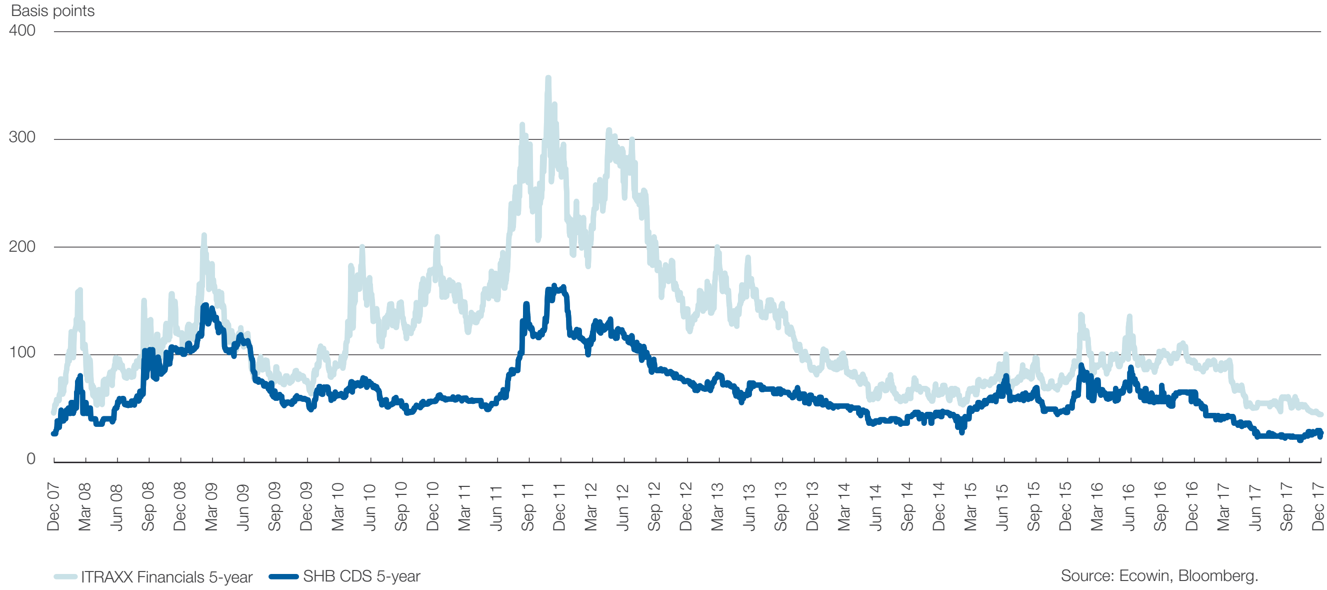
assumed to disappear within one year and all access to new market funding disappears. Despite the stress, short-term assets are estimated to exceed short-term liabilities by a considerable amount at year-end. A long-term crisis could result in a reduced balance sheet with retained core business, whereby the volume of short-term assets is gradually used to pay back maturing short-term liabilities. In the event of an even longer crisis, measures have been prepared to create liquidity which will provide more support to the business operations.

The market has great confidence in Handelsbanken, and its assessment is that Handelsbanken has a low credit risk. One illustration of this is that the cost of insuring a credit risk on the Bank, referred to as the CDS spread, is one of the lowest among European banks, and Handelsbanken has the lowest funding costs of peer banks. Handelsbanken has a high rating with the external rating agencies. Handelsbanken's combined long-term rating is AA, so the Bank has the highest rating in Europe of all peer banks.

Good diversification between different types of sources of funding in various markets, currencies and forms of funding instruments is a key component of the funding strategy. This reduces the significance of individual markets or sources of funding. Handelsbanken's long-term international funding is geographically well diversified, and the Bank has issued significant volumes of bonds in the UK, the United States, Asia, Australia, the euro market and other markets. The most important sources of funding are deposits from households and companies as well as covered and senior bonds. The short-term funding mainly comprises deposits from financial companies and institutions as well as issues of certificates and CDs. Group Treasury has a number of different funding programmes for market funding at its disposal, which, in addition to the programmes shown in table 65, include covered bonds in Swedish kronor. Bonds and certificates are issued under these programmes in the Bank's and Stadshypotek's names. The funding programmes ensure well-diversified access to funding in terms of different currencies, the number of investors and geographic breakdown.

Figure 64 Handelsbanken's 5-year CDS spread compared with ITRAXX Financials

ITRAXX Financials is an index of CDS spreads for the 25 largest bond issuers in the European bank and insurance sector. It describes the average premium that an investor requires in order to accept credit risk on the companies.



Source: Ecowin, Bloomberg.

Table 65 Funding programmes/limits in the Group

Funding programmes/limits in the Group 2017 **Programme**	**Currency**	**Programme size**	**Utilised amount**	**Countervalue,** SEK m
ECP[1]	EUR	15 000	6 984	68 728
ECP (Stadshypotek)[1]	EUR	4 000	-	-
French commercial paper	EUR	7 500	4 051	39 860
Swedish commercial paper	SEK	25 000	-	-
Swedish commercial paper (Stadshypotek)	SEK	90 000	-	-
USCP	USD	15 000	3 497	28 697
AMTN	AUD	5 000	1 275	8 175
AMTCN (Stadshypotek)	AUD	5 000	-	-
EMTN[1]	USD	50 000	17 432	143 032
EMTCN (Stadshypotek)[1]	EUR	20 000	11 252	110 729
US 144A/3(a)(2)	USD	20 000	12 150	99 692
Stadshypotek US 144A	USD	15 000	5 000	41 026
Samurai	JPY	400 000	147 800	10 779
MTN[1]	SEK	100 000	10 000	10 000
General funding >1 yr[1]	USD	15 000	3 206	26 306
Extendible notes	USD	15 000	-	-
Total				**587 024**
Total programme or limited amounts, SEK m	1 832 544			
Unutilised amount, SEK m	1 245 520			
Remaining to utilise, %	**68%**			

[1] It is possible to issue in other currencies than the original programme currency under these programmes, where currency conversion takes place at the time of issue.

ORGANISATIONAL STRUCTURE

Handelsbanken has a completely decentralised business model, but all funding and liquidity risk management in the Group is centralised to Group Treasury. Funding and liquidity risk management is governed by policies established by the Board which also decides on limits. Guidelines from the CEO and instructions from the CFO make these policies concrete. The guidelines establish parameters such as limits, the composition of the funding, and benchmarks in the case of disruptions in the funding markets. Furthermore, all liquidity risk limits are channelled to the operations via Group Treasury.

Group Treasury is also responsible for the Bank's clearing operation and monitors liquidity flows during the day to ensure that the Bank has sufficient collateral in its payment systems at any given time to meet the Bank's payment obligations. The Bank's liquidity monitoring takes place locally, near the transactions, and is supplemented by central management of collateral and the liquidity reserve for the whole Group.

The size of collateral in the clearing systems is determined on the basis of what the Bank deems is required to fulfil its obligations, both in normal circumstances and in case of larger flows. If the flow changes, the size of collateral and liquidity is adjusted, and in times of crisis, collateral can also be redistributed and the liquidity reserve can be activated. The Bank secures liquidity in its nostro accounts for expected payment and settlement undertakings through active liquidity planning and monitoring in all currencies.

MARKET FUNDING – COMPOSITION

During the year, Handelsbanken issued long-term market funding totalling SEK 227 billion (210), spread over all the currencies that are important to the Bank. Short-term funding is mainly done by issuing certificates of deposit under the various loan programmes, chiefly in Europe and the United States. These loan programmes are supplemented by funding in the international interbank market. During the year, the Bank thus continued to meet investors to the same extent as previously, updated its funding programmes and also in other respects maintained the conditions for bond funding on all relevant funding markets worldwide. This enables funding operations to be maintained in circumstances that are much more difficult than those which have existed in the past few years.

LIQUIDITY RISK

The Bank handles a large number of incoming and outgoing cash flows every day. The gap between incoming and outgoing cash flows is restricted by means of limits. Group Risk Control reports risk utilisation daily to the CFO, weekly to the CEO, and on a regular basis to the Board.

Liquidity planning is based on an analysis of cash flows for the respective currency. As a general rule, a larger exposure is permitted in currencies with high liquidity than in currencies where the liquidity is low. The strategy is that expected outgoing cash flows from the Bank must always be matched with incoming cash flows into the Bank that are at least of the same amount, and that a positive cash flow and cash position must be maintained – even in stressed conditions. This kind of gap analysis is supplemented by scenario tests, in which the effect on liquidity is stressed and analysed using various assumptions.

The governance of the Bank's liquidity situation is based on these stress tests, which are performed at an aggregate level and also individually for the currencies that are essential to the Bank. Resistance to more long-term disruptions in the market is therefore measured on a daily basis through stress testing of cash flows based on certain assumptions. For example, it is assumed that the Bank cannot obtain funding in the financial markets at the same time as 10 per cent of non-fixed-term deposits from households and companies disappear gradually in the first month. It is further assumed that the Bank will continue to conduct its core activities, i.e. that fixed-term deposits from and loans to households and companies will be renewed at maturity and that issued commitments and credit facilities will be partly utilised by customers. The Bank also takes into account that balances with central banks and banks will be utilised and that Group Treasury's securities can immediately supply liquidity if provided as collateral, primarily in the market and as a last resort in central banks.

Actions that generate liquidity are also used to steadily provide the Bank with liquidity. Under these conditions, the Bank will remain liquid for more than three years. Thus, the Bank is also substantially resistant to serious, long-term disruptions in the funding markets.

A condition for the Bank to be able to maintain such substantial resistance to disruptions in the financial markets as stated above is that the balance sheet is well balanced. Figure 63 shows that the volume of current assets significantly exceeds the volume of current liabilities in a stressed scenario where 20 per cent of the deposits are assumed to disappear within one year. Furthermore, the volume and quality of unutilised collateral must be able to give the

Figure 66 Maturity profile long-term market funding
Refers to issued securities as at 31 December 2017 with an original maturity exceeding one year.

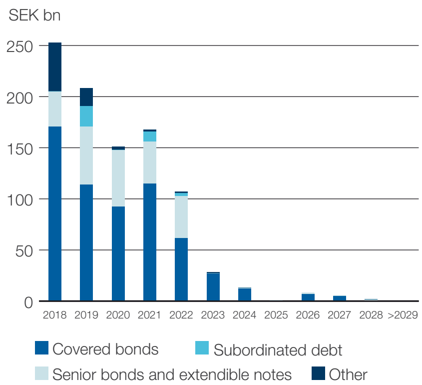


Figure 70 Stress test of liquidity, including liquidity-creating measures – accumulated liquidity position

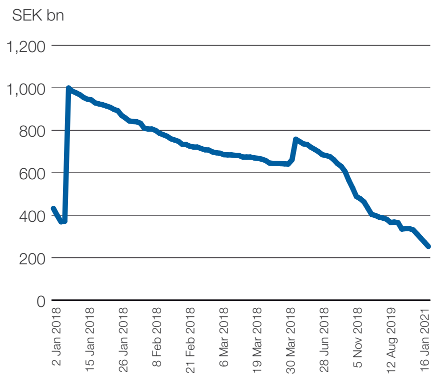


Figure 67 Short-term market funding by currency 2017
Refers to the currency breakdown as at 31 December 2017 for issued securities with original time to maturity of less than one year. Amounts in brackets SEK billion.

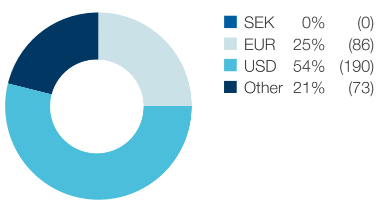


Figure 68 Long-term market funding by currency 2017
Refers to the currency breakdown as at 31 December 2017 for issued securities with original time to maturity of more than one year. Amounts in brackets SEK billion.

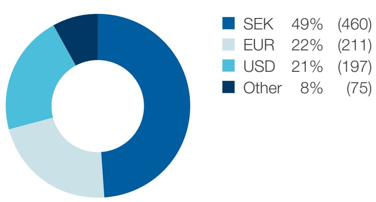
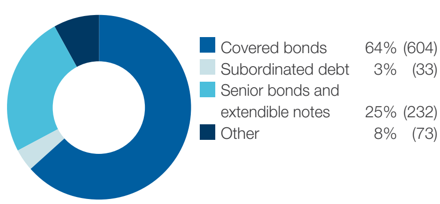


Figure 69 Long-term market funding by instrument 2017
Refers to breakdown by instrument as at 31 December 2017 for issued securities with original time to maturity of more than one year. Amounts in brackets SEK billion.



Bank the liquidity it needs in times of crisis. Consistently steering the Bank towards positive future net cash flows, instead of point-in-time ratios, also secures this over time.

Table TB32 shows cash flows for the contracted payment commitments, including interest flows, due for payment at the latest within the stated time intervals. The table shows holdings of bonds and other interest-bearing securities in the time intervals in which they can be converted to liquidity if they are pledged as collateral or sold. Also shown are the assets, liabilities and interest flows that mature in the time intervals corresponding to the contractual maturity dates. Interest flows for lending in the mortgage operations are matched in time with the liabilities that funded the lending. Financial guarantees, committed loan offers, and unutilised overdraft facilities are reported in their entirety in the interval for up to 30 days. The total outstanding amount of these commitments does not necessarily represent future funding requirements. For derivative instruments, cash flows are reported net for interest rate swaps and gross for instruments where gross cash flows are paid or received, such as currency swaps.

Since 2013, the liquidity coverage ratio (LCR) has been a binding requirement for Swedish banks, and Handelsbanken has reported it according to the Swedish Financial Supervisory Authority's definition. This measure expresses the ratio between the Bank's liquidity buffer, which consists of several different components as discussed in a later section, and the net cash flows in a highly stressed scenario during a 30-day period. The ratio must be more than 100 per cent. The requirement has applied to LCR at aggregate level and separately for US dollars and euros. As of 1 October 2015, the European Commission's delegated act contains a minimum European requirement for LCR. This minimum requirement, which applies at aggregate level, was 80 per cent in 2017, but is 100 per cent as of 1 January 2018, when the delegated act became fully implemented. In conjunction with this, the Swedish Financial Supervisory Authority's directives and requirements for the LCR were repealed. The Authority has announced that in the future they intend to exercise supervision of LCR in individual currencies within the framework of the supervisory review and evaluation process in Pillar 2.

The LCR may display a degree of volatility over time, for example when funding that was originally long term and that finances mortgage loans is replaced by new long-term funding, or when the composition of counterparty categories in short-term funding varies. At year-end, the Group's aggregated LCR according to the Swedish Financial Supervisory Authority's definition was 133 per cent (126), and the Bank's LCR according to the European Commission's delegated act was 139 per cent (142), which shows that the Bank has substantial resistance to short-term disruptions in the funding markets. This also applies in US dollars and euros. At the end of 2017, the structural liquidity measure called net stable funding ratio (NSFR) – the ratio between available stable funding and the need for stable funding – was 102 per cent (102) for the Group.

PRICING OF LIQUIDITY RISK

An important part of liquidity risk management is that deposits and lending are priced internally, taking into account the liquidity risks that they give rise to. For example, when the Bank grants a loan with a long maturity this creates the need to obtain additional long-term funding – which is more expensive than shorter-term funding. This is because investors who purchase the Bank's long-term bonds normally demand higher compensation for the maturity. This must be taken into account in the Bank's internal pricing by ensuring that the price which internal units in the Bank have to pay for the loans they obtain from Group Treasury varies according to factors such as the maturity period. No liquidity risks can be taken locally. The internal pricing is important in order to create the right incentive and to avoid unsound risk-taking. The Bank has worked with maturity-based internal prices for a long time. They ensure that the price at contract level takes into account the liquidity risk that the agreement has given rise to. This system was already fully implemented at the Bank in 2010.

Table 71 Liquidity coverage ratio (LCR)

Calculated according to the Swedish Financial Supervisory Authority's directive 2012:6 which came into force on 1 January 2013.

Liquidity coverage ratio (LCR) %	2017	2016
EUR	175	136
USD	482	322
Total	**133**	**126**

Table 72 Liquidity coverage ratio (LCR) – decomposition

The components are defined in line with the Swedish Financial Supervisory Authority's directives and requirements for the liquidity coverage ratio and reporting of liquid assets and cash flows, FFFS 2012:6. Liquid assets level 1 corresponds to Chapter 3, Section 6. Liquid assets level 2 corresponds to Chapter 3, Section 7. Deposits from customers corresponds to Chapter 4, Sections 4–9. Market funding corresponds to Chapter 4, Sections 10–13. Other cash flows corresponds to Chapter 4, Sections 14–25. Lending to non-financial customers corresponds to Chapter 5, Section 4. Other cash inflows corresponds to Chapter 5, Sections 6–12.

Liquidity coverage ratio (LCR) – decomposition SEK m	2017	2016
Liquid assets	**431 037**	**290 058**
Liquid assets level 1	396 615	251 189
Liquid assets level 2	34 422	38 869
Cash outflows	**366 396**	**359 659**
Deposits from customers	213 769	173 496
Market funding	107 727	151 735
Other cash outflows	44 900	34 428
Cash inflows	**43 467**	**129 176**
Inflows from maturing lending to non-financial customers	23 508	21 146
Other cash inflows	19 959	108 030

LIQUIDITY RESERVE

To ensure sufficient liquidity to support its core operations in stressed financial conditions, the Bank holds large liquidity reserves. Liquidity reserves are kept in all currencies that are relevant to the Bank and are accessible for Group Treasury. The liquidity reserve is independent of funding and foreign exchange markets and can provide liquidity to the Bank at any time – some parts immediately and other parts gradually over a period of time.

The liquidity reserve comprises several different parts. Cash, balances and other lending to central banks are components which can provide the Bank with immediate liquidity. The reserve also comprises government bonds, covered bonds and other high-quality securities which are liquid and eligible as collateral with central banks. These can also provide the Bank with immediate liquidity. The remainder of the liquidity reserve comprises an unutilised issue amount for covered bonds and other liquidity-creating measures.

ENCUMBERED ASSETS AND COVER POOLS

Another important part of Handelsbanken's liquidity management consists of retaining significant volumes of unutilised collateral that can be used in the event of disruptions in the financial markets. One prerequisite for being able to pledge additional collateral is for the Bank to have collateral at its disposal from the outset. The Bank therefore retains substantial volumes of non-encumbered assets that could be used as collateral in the issue of covered bonds and liquid securities with very high credit ratings.

The Bank is restrictive about entering into agreements with parties other than credit institutions, such as CSA agreements that stipulate that the Bank, according to certain criteria, may be forced to provide collateral to a counterparty. Cash collateral pledged under CSA agreements for outstanding derivatives totalled SEK 5,540 million (7,279). For more information about the Bank's encumbered assets, see the Assets pledged table in Handelsbanken's Fact Book. In addition to securing the Bank's liquidity, this restrictive approach contributes to limiting the extent to which the Bank's senior lenders have lower priority than lenders who invest in covered bonds, known as subordination.

To assess the degree of subordination between investors of non-encumbered funding and encumbered funding, the volume and credit quality of the non-encumbered assets are the relevant factors. Handelsbanken's restrictive approach to risk-taking means that the non-encumbered assets are of high quality. Since Handelsbanken wishes to have a balanced utilisation of covered and senior bonds, there is a large volume of mortgage loans which are not encumbered. Other non-encumbered loans also have a low risk measured, for example, in terms of the Bank's internal rating.

Table 75 shows that the volume of non-encumbered assets for Handelsbanken is 224 per cent (210) of the outstanding volume of

Table 73 Holdings with central banks and banks, and securities holdings in the liquidity reserve, market value

Holdings with central banks and banks, and securities holdings in the liquidity reserve, market value 2017 SEK m	SEK	EUR	USD	Other	Total
Cash and balances with and other lending to central banks	6 766	85 624	48 079	124 765	265 234
Balances with other banks and National Debt Office, overnight	1 831	13	19	178	2 041
Government-issued securities	92 916	6 916	22 173	-	122 005
Securities issued by municipalities and other public entities	6 433	-	3 897	50	10 380
Covered bonds	31 911	1 973	-	6 625	40 509
Own covered bonds	2 338	-	-	1 402	3 740
Securities issued by non-financial companies	126	15	-	-	141
Securities issued by financial companies (excl. covered bonds)	131	144	-	-	275
Other securities	-	-	-	-	-
Total	**142 452**	**94 685**	**74 168**	**133 020**	**444 325**

Holdings with central banks and banks, and securities holdings in the liquidity reserve, market value 2016 SEK m	SEK	EUR	USD	Other	Total
Cash and balances with and other lending to central banks	4 821	99 487	30 460	89 765	224 533
Balances with other banks and National Debt Office, overnight	7 567	22	23	100	7 712
Government-issued securities	70 483	6 430	12 519	-	89 432
Securities issued by municipalities and other public entities	2 051	287	4 447	-	6 785
Covered bonds	36 631	2 108	-	10 306	49 045
Own covered bonds	4 602	-	-	-	4 602
Securities issued by non-financial companies	1	26	-	-	27
Securities issued by financial companies (excl. covered bonds)	85	20	-	19	124
Other securities	-	-	-	-	-
Total	**126 241**	**108 380**	**47 449**	**100 190**	**382 260**

non-encumbered funding. At the end of the year, the Bank decided to reduce the volume of short-term deposits. This explains the decrease in balances on deposit with central banks and the ratio between non-encumbered assets in relation to the outstanding volume of non-encumbered funding compared with previous quarters.

The majority of the encumbered assets consist of Stadshypotek's cover pools, which comprise mortgage loans provided as collateral for outstanding covered bonds. The Bank also has voluntary over-collateralisation (OC) – assets additional to the statutory requirement of 2 per cent needed to cover the issued bonds – of 8 per cent included in the pool. These extra assets are in the pool in case the value of the mortgage loans were to fall to a level such that further assets are needed to match the volume of outstanding bonds.

When assessing the risk that it will be necessary to add further assets, the loan-to-value ratio (LTV) of the mortgage loans in the cover pool is of fundamental importance. The lower the LTV, the lower the risk that more mortgage loans are required in the pool if prices fall in the property market. Handelsbanken's average LTV – LTV Max – was 53.8 per cent (50.0) in the Swedish pool, 55.6 per cent (53.6) in the Norwegian pool, and 49.7 per cent (48.7) in the Finnish pool. The conditions are in place for a Danish pool, which Moody's has given a preliminary rating of Aaa, but this asset pool has not yet been used for issues. The Danish pool's average LTV was 63.9 per cent. This demonstrates that the Bank can withstand substantial drops in prices of underlying property assets before further mortgage loans have to be added to the pools.

The assets which the Bank has chosen to keep outside the cover pools are shown in table 75 and can be used for issues of covered bonds if necessary.

Table 74 Encumbered assets and other pledged collateral
Loans to the public are reported at amortised cost. Other pledged assets are reported at fair value.
The reported value of the liabilities related to the collateral was SEK 870bn (854).

Encumbered assets and other pledged collateral	Recognised amounts	
SEK bn	2017	2016
Loans to the public[1]	661	663
Government instruments and bonds	37	34
Equities	1	1
Cash	16	17
Other	142	125
Total[2]	**857**	**840**
Other pledged assets[3]	34	33

[1] Of which over-collateralisation in the cover pool (OC) SEK 61bn (61).
[2] Of which SEK 23bn (20) is collateral which can be freely reclaimed by the Bank.
[3] Of which SEK 26bn (27) is collateral which can be freely reclaimed by the Bank.

Table 75 Non-encumbered/non-pledged assets

Non-encumbered/non-pledged assets	2017		2016	
SEK bn	(NEA)[1]	Accumulated share of non-secured funding, %[2]	(NEA)[1]	Accumulated share of non-secured funding, %[2]
Cash and balances with central banks	**267**	**32**	**232**	**28**
Liquid bonds in liquidity portfolio	**177**	**53**	**150**	**46**
Loans to households including derivatives	**467**		**466**	
of which mortgage loans	*277*	*86*	*284*	*80*
of which loans secured by property mortgage	*9*	*87*	*11*	*81*
of which other household lending	*181*	*109*	*171*	*101*
Loans to companies including derivatives	**937**		**831**	
of which mortgage loans	*272*	*141*	*186*	*124*
of which loans to housing co-operative associations excl. mortgage loans	*54*	*148*	*48*	*129*
of which loans to property companies incl./excl. mortgage loans				
- risk category 1–3	*276*	*180*	*260*	*160*
- risk category 4–5	*99*	*192*	*98*	*172*
- of which risk category > 5	*9*	*193*	*10*	*173*
of which other corporate lending				
- risk category 1–3	*141*	*210*	*144*	*191*
- risk category 4–5	*69*	*218*	*70*	*199*
- risk category > 5	*17*	*220*	*15*	*201*
Loans to credit institutions including derivatives	**19**		**32**	
- risk category 1–3	*19*	*223*	*32*	*205*
- risk category > 3	*0*	*223*	*0*	*205*
Other lending	**0**	**223**	**0**	**205**
Other assets	**9**	**224**	**44**	**210**
Total	1 876	224	1 755	210

[1] NEA: Non-encumbered assets.
[2] Issued short and long non-secured funding and due to credit institutions.

Table 76 Collateral received available for encumbrance
The carrying amount of the liabilities and other commitments for which the collateral has been pledged amounts to SEK 5bn (4).

Collateral received available for encumbrance	Fair value of collateral received available for encumbrance		Fair value of encumbered collateral received	
SEK bn	2017	2016	2017	2016
Government instruments and bonds	15	12	3	1
Shares	1	3	7	4
Total	**16**	**15**	**10**	**5**

Table 77 Cover pool data

Cover pool data	Sweden		Norway		Finland	
SEK m	2017	2016	2017	2016	2017	2016
Stadshypotek total lending, public	1 051 541	983 160	79 179	79 564	49 377	50 724
Available assets for cover pool	967 320	902 862	75 247	75 226	46 503	47 473
Utilised assets in cover pool	618 744	626 458	25 320	31 269	16 741	5 193
Substitute assets, cash on a locked account	5 000	5 000	-	-	-	-
Maximum LTV %, weighted average ASCB definition[1]	53.81	49.97	55.55	53.63	49.68	48.72
LTV, breakdown						
0–10%	22.9	25.5	21.7	23.4	27.6	26.8
10–20%	19.8	21.3	20.0	20.3	23.3	23.3
20–30%	17.1	17.4	17.0	16.9	19.5	20.5
30–40%	14.4	13.7	14.1	14.1	13.4	15.7
40–50%	11.4	10.2	11.7	11.2	8.6	11.2
50–60%	8.0	6.9	8.8	8.2	5.2	2.5
60–70%	5.0	3.9	5.3	4.8	2.1	0
70–75%	1.4	1.1	1.4	1.1	0.4	0
Loan amount, weighted average, SEK	634 500	647 500	3 538 328	3 673 983	871 894	825 096
Loan term, weighted average, no. of months[2]	61	64	23	21	57	55
Interest fixing periods, breakdown						
Floating rate, %	54.9	47.2	97.9	100	99.9	100
Fixed rate, %	45.1	52.8	2.1	0	0.1	0

[1] Association of Swedish Covered Bond issuers.
[2] As of Q2 2016, calculated from the approval date of the loan instead of the latest date for amendment of specific terms.

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 CEO 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 49 million (116) in 2017. 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 is managed in the business operations, and this management is checked by local risk control and Group Risk Control. Specially appointed local co-ordinators (local OpRisk co-ordinators) for operational risk are in place at regional banks, main departments, subsidiaries and units outside the Bank's home markets to assist managers in their managing of operational risk. They are responsible for ensuring that existing methods and procedures for managing operational risk are used in the business operations, managing follow-up on reported incidents, supporting the business operations, and following up any actions decided regarding operational risk.

Local risk control functions at regional banks, main departments, subsidiaries and units outside the Bank's home markets must ensure that the units within their own operations identify, assess, report and manage operational risk as well as follow up to ensure that the actions decided are carried out. This is done by means of regular quality assurance and evaluation of the operations' work with operational risk.

Group Risk Control has the overall responsibility for the methods and procedures used to manage operational risk and for periodically assessing methods and procedures as well as their use in the operations. Group Risk Control is also responsible for ensuring that risks are evaluated before decisions are made concerning new or materially changed products, services, markets, processes or IT systems or in the case of major changes in the Group's operations or organisational structure. In addition, Group Risk Control is responsible for identifying, measuring, analysing, and reporting at the Group level all material operational risk and its development to-management and the Board. The risk reports to management and the Board also contain information about material incidents and risk-mitigation measures.

METHODS FOR IDENTIFYING, ASSESSING AND MANAGING OPERATIONAL RISK

As an aid to continual identification, assessment and management of operational risk, the Bank has a reporting and case management system for incidents, a method and procedure for self-assessment of operational risk and risk indicators.

Incident reporting

The regular collection of risk facts in the form of incident reporting takes place at branch offices and departments throughout the Group in accordance with the CEO's guidelines and

Figure 78 Breakdown of losses exceeding SEK 25 thousand, 2013–2017

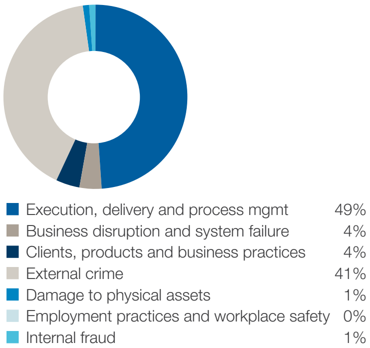


Figure 79 Breakdown of loss amount exceeding SEK 25 thousand, 2013–2017

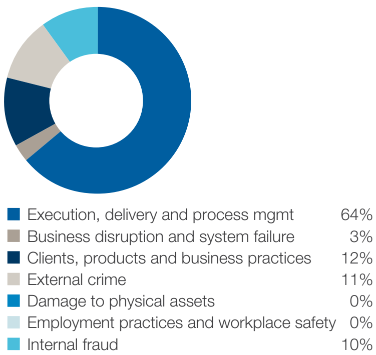
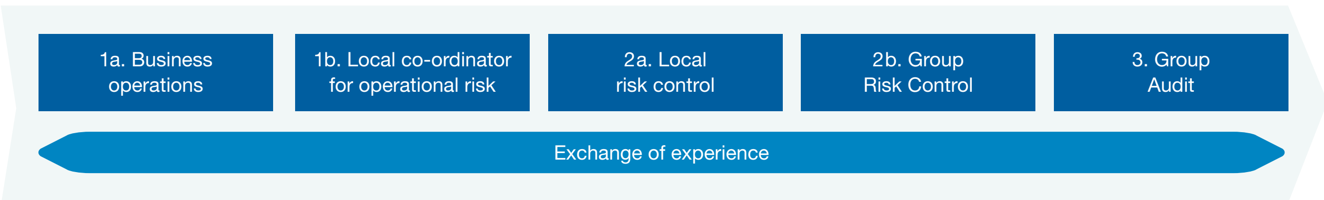


Figure 80 Operational risk management and control at Handelsbanken



supplementary instructions. All employees throughout the Group must collect facts about incidents which have affected their unit and resulted in a loss exceeding SEK 25,000. In addition, risk facts must be collected and reported concerning incidents where the losses are zero or are less than SEK 25,000 but demonstrate material operational risk that could have a material negative impact on a unit's profit. To further promote the unit's proactive work with risk, all employees are encouraged to also collect facts about incidents which give rise to smaller losses or no loss at all.

Incidents reported are reviewed and categorised on a regular basis by the local OpRisk co-ordinator. The Bank categorises operational risk according to seven types of events:

- execution, delivery and process management
- business disruptions and system failures
- clients, products and business practices
- external crime
- damage to physical assets
- employment practices and workplace safety
- internal fraud.

Self-assessment procedure OPRA Risk Analysis

OPRA Risk Analysis is a self-assessment procedure to document and assess operational risks which may have an impact on the Bank. It is carried out at least once a year at all units. The head of the unit is responsible for this being performed. The local OpRisk co-ordinator provides support for the planning and implementation. The participants must be people with broad experience of the unit's operations. Their combined competency must cover all the areas of responsibility that have been identified for the analysis. The aim is to assess the consequence and likelihood of an event. The assessment of the impact includes both financial losses and reputation risk. Information that is important as the basis of OPRA Risk Analysis includes facts and statistics from previously reported incidents, audit reports, compliance reports, external public events in the business environment, and OPRA Risk Analyses from other units and essential processes that are relevant. The self-assessment procedure results in an action plan stating the risks to be reduced, how this will be done, who is responsible and time limits for when measures are to be taken. The action plan is a working document that is regularly followed up during the year by the business operations with the support of the local OpRisk co-ordinator. Local risk control is informed about the completed OPRA Risk Analysis, including the action plan, and it evaluates the procedure. Group Risk Control provides regular support to the local OpRisk co-ordinator's planning, implementation and follow-up and also performs an annual aggregate assessment of the evaluations from all local risk control units.

RISK INDICATORS

Risk indicators are applied in order to identify and warn of heightened operational risk. The local OpRisk co-ordinators regularly collect data and present it to the local management. Some risk indicators are collected by Group Risk Control and presented to management and the Board. If a threshold value for a risk indicator is exceeded, a consequence and probability assessment is carried out and documented by the responsible unit.

ORX

The Bank is a member of Operational Riskdata eXchange Association (ORX). The main purpose of ORX is for participating banks to exchange anonymised data concerning incidents leading to operational losses. ORX also has an important function in standardising and ensuring the quality of data on operational risks. Extensive research is being done on methods regarding operational risk, and ORX is an important forum for exchange of information.

IT OPERATIONS IN THE HANDELSBANKEN GROUP

The Bank's operations are conditional on availability and security in its IT services. The CEO establishes guidelines relating to the overall goal and strategy of IT operations in the Handelsbanken Group. Operational risk in this area is managed according to the same procedures as in other parts of the Bank, with the addition of special procedures for managing specific types of risk within the area, such as:

- monitoring IT production
- management of IT incidents
- management of cyber risk
- implementation of security tests
- implementation of risk analyses of IT systems
- review of external service providers with respect to information and IT security.

A special local risk control function within Group IT monitors risks in IT and information security.

INFORMATION AND IT SECURITY

The Bank's operations continually process sensitive information, particularly regarding the Bank's customers and customer relations. The Bank's work with information and IT security focuses on availability, correctness, confidentiality, and traceability. The information and business systems must be available based on the business requirements of the operations. All information must also be reliable, correct and complete. It should never be distributed to unauthorised persons and it may only be used to the extent required by the work assignment. In addition, it must be possible to determine afterwards who has read or changed the information, when it was changed and which changes were made. Structured development is under way in the Bank to increase the level of awareness among all employees and customers concerning the threats and risks in information security, through presentations, training programmes and information initiatives.

Work with the Bank's information security and IT security involves protecting customers' information and transactions and also the Bank's IT environment. Information security covers administrative systems, such as rules and instructions, as well as technical security solutions.

INTEGRITY AND CONFIDENTIALITY – PRO-ACTIVE INFORMATION AND IT SECURITY EFFORTS

It is important that the Bank actively works with IT security to meet possible threats identified through business intelligence with respect to cyber threats, that there is preparedness for dealing with IT security incidents, and that there are procedures for managing change in the IT environment so that no breaches occur. If management of information were to prove faulty, or if information were to be released by mistake, the consequences could be serious, including weakened confidence in the Bank or financial losses.

The CEO establishes guidelines for information security at Handelsbanken. All employees in the Bank are responsible for compliance with the rules for protection of information, and all managers are responsible for compliance with the rules in their own area of responsibility. Information security work is pursued in accordance with the ISO 27001 international standard. One result of this is that any risks are identified on a regular basis and that internal rules are produced so that the information is protected over time.

The Bank's work with information security and IT security, as well as its management of sensitive information, is also governed by international and national regulations.

The Bank's information security regulations are based on the Standard of Good Practice developed by Information Security Forum (ISF), an organisation where most of the largest companies in the world are members. The work with information and IT security is pursued systematically and the Bank applies a process where risk analysis plays a central role. The risk analyses are performed using the IRAM method (ISF's Information Risk Analysis Methodology).

For several years, Handelsbanken has been a 'listed team' in the Trusted Introducer community (a European network for IT security) and a full member of the Forum of Incident Response and Security Teams (FIRST). Handelsbanken also participates in FIDI Finans, a forum for sharing information between the government, the business community and other relevant organisations in Sweden regarding information security in the financial sector. The forum is led by the Swedish Civil Contingencies Agency.

FINANCIAL CRIME

The Bank aims to constantly work, in an effective, fit-for-purpose manner, to minimise the risk for the Bank or the Bank's products or services being used as part of some kind of financial crime. Financial crime includes money laundering, terrorist financing, tax crimes, various types of fraud, corruption, and other particularly serious financial crime. In 2017, the Group's efforts were organised in a central unit led by the Bank's specially designated officer. Essential starting points for the new organisation include the Bank's low tolerance of risk and the body of external regulations on money laundering and terrorist financing.

NEW PRODUCTS AND SERVICES

The Bank has a process for managing new products and services and for managing major changes to existing ones. Each business area, subsidiary and regional bank with product responsibility manages new products and services in accordance with central guidelines. There is an established decision procedure for how new products and services can be introduced, and a risk analysis is always performed that must be approved by local risk control before a new product or service is launched. The analysis must take into account the risks, including operational risk and reputation risk, for the Bank and for the customer. In addition, the analysis must take into account matters regarding sustainability, information security and data quality. Group Risk Control is involved in complex cases or when this is justified for other reasons.

ESSENTIAL PROCESSES

The Bank has identified and documented the processes which are essential to the Bank's operations. The Bank's list of essential processes is reviewed and revised on a regular basis. Risk analyses are performed annually, and when there is a material change in an essential process.

CRISIS MANAGEMENT AND CONTINUITY PLANNING

There are crisis management handbooks and continuity plans in place in all parts of the Group for dealing with serious disruptions. Continuity plans are made for organisational units, IT systems and essential processes. Crisis management helps the crisis team to quickly and systematically start to deal with a crisis situation and its effects. There is a central crisis team for the whole Group and local crisis teams in the Bank's home markets, several subsidiaries, international units outside the Bank's home markets, and in several operating areas.

The Group Crisis Team has permanent staff consisting of key members of management or those close to them. The Group Crisis Team functions as a liaison crisis team in the event of a major crisis in the Group, supports the local crisis team or teams working with an acute crisis and functions as a crisis team for the main central departments. Continuity planning focuses on taking preventive measures to minimise the consequences of a serious disruption of business operations. Local risk control performs an annual evaluation of the procedure. Group Risk Control then performs an aggregated evaluation at Group level.

OUTSOURCING AGREEMENTS

The CEO has issued guidelines that set out the conditions and requirements for outsourcing work and functions of material significance to the operations. The guidelines apply throughout the Handelsbanken Group and also cover the subsidiaries in the Group.

ORGANISATIONAL CHANGES

The Bank has instructions for business operation and/or organisational changes. These instructions state that there must be a decision procedure for decisions about major business operation and/or organisational changes, and the responsibility of the different functions in the process must be clearly stated. Before a decision is made about a business operation/organisational change, a risk analysis must be performed. Decisions and decision documentation must be documented.

REPUTATION RISK, CONDUCT RISK, AND TRAINING

Reputation risk is the risk of losses due to damage of confidence in the Bank. This may occur for reasons such as deficiencies in ethical standards, inappropriate actions, poor information or badly planned development of new or changed products. Handelsbanken manages and minimises reputation risk in its operations through pro-active business intelligence and accompanying, relevant corrective action when needed, as well as by conducting operations to a high ethical standard. Handelsbanken employees are trained annually through mandatory security reviews that cover rules on confidentiality, combating financial crime, conflicts of interest, bribery, market manipulation and complaints management. Handelsbanken's low risk tolerance is also reflected in the view of remuneration. The Bank regards fixed remuneration as contributing to sound operations, so it is a basic rule.

SUSTAINABILITY

Sustainability risk can arise in any of the Bank's different roles – as a lender, asset manager, service provider, purchaser or an employer. Sustainability risk spans areas such as human rights, the environment, climate, corruption and money laundering. It is important to anticipate and manage sustainability risk, for financial and legal reasons as well as for the Bank's reputation.

Handelsbanken's activities for managing sustainability risk follow the Bank's decentralised model and are aligned with the Bank's generally low tolerance of risk. The Bank's business operations bear the responsibility for identifying sustainability risk and managing it. This is done within a framework of established processes for risk management.

CAPITAL REQUIREMENTS 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 2017, the total capital requirement for operational risk for the consolidated situation was SEK 4,929 million (4,815).

Compliance risk

The objective is to identify and manage the risks that the Bank does not meet its obligations according to the internal and external regulations which apply to licensed operations.

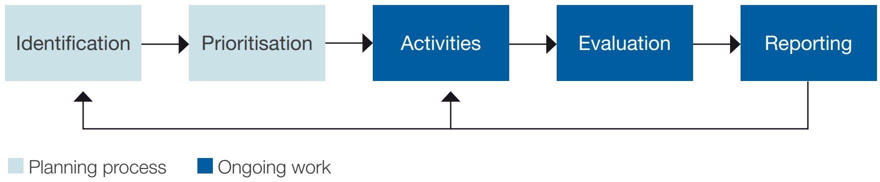
Compliance risk is the risk that the Bank does not comply with laws, regulations and internal rules, or accepted business practices or standards.

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". The objective is that no breaches of regulations should occur within the Group's operations, and that compliance risks are identified and managed.

Poor management of compliance risks may lead to increased operational and legal risks, reputation risk and the risk of intervention by the supervisory authorities. The work of compliance aims to identify compliance risks and to ensure that the necessary action is taken to mitigate them.

The guidelines for how supervisory authorities consider the compliance function should be set up and how a credit institution should work with compliance matters are established in the Swedish Financial Supervisory Authority's Regulations and General Guidelines regarding governance, risk management and control at credit institutions (FFFS 2014:1), the European Banking Authority's Guidelines on internal governance, and the European Securities and Markets Authority's Guidelines on certain aspects of the MiFID compliance function requirements. The Basel Committee's Compliance and the compliance function in banks also provides guidelines for how a bank's compliance function should be structured. Handelsbanken has implemented this work method through its policies, guidelines and instructions.

Figure 81 The compliance process



ORGANISATIONAL STRUCTURE

Handelsbanken's compliance function is organised as a central compliance department (Group Compliance), and also local compliance officers or departments (local compliance) for every business area, regional bank and central department, and in countries where Handelsbanken has local operations.

RESPONSIBILITIES

Compliance is an essential part of Handelsbanken's operations and is thus the responsibility of all managers and employees in the Group. The compliance function is responsible for identifying and assessing material compliance risks and deficiencies, performing regular controls and assessments as to how the Bank fulfils its obligations with regard to legislation, regulations and other rules applying to the licensed operations, providing recommendations, support, and advice to the Bank's units regarding compliance questions and reporting to management and the Board regarding compliance and compliance risks and deficiencies. Group Compliance has the function responsibility for all compliance work at Handelsbanken. Local compliance has the operational responsibility at each unit.

Local compliance functions are evaluated by Group Compliance, in order to assess whether they have satisfactory independence and sufficient quantitative and qualitative resources.

RISK-BASED COMPLIANCE WORK

The foundation for the compliance work is a risk-based prioritisation of the Group's most significant risk areas. These risk areas constitute the starting point for all compliance activities such as support and advice, training and controls. If compliance risks or deficiencies are identified, they are evaluated and reported using a four-level assessment scale: 'minor', 'moderate', 'major', and 'critical'. The assessments are done based on the nature of the regulations, frequency of deficiencies, and the measures taken by the operations to correct deficiencies and other findings. The Chief Compliance Officer reports significant risk areas judged to have a 'major' or 'critical' risk at least every quarter to the CEO, every six months to the Board's risk committee, and every year to the Board. The reports also contain an assessment of the actions that the operations have taken to manage the risks and deficiencies identified and recommendations to the units concerned.

COMPLIANCE RISKS

In 2017, a few compliance risks were reported as significant at Group level – that is, major or critical risks – and were subject to urgent action to reduce them to an acceptable level. In 2017, compliance risks associated with the rules concerning measures against money laundering and terrorist financing were assessed as the most significant ones. An extensive project is in progress to ensure good management of the risks and compliance in the Group in this area, which also includes addressing external factors such as recently adopted legislation and increasing supervisory aims on the part of competent authorities.

The increasingly comprehensive and detailed regulations concerning investment advice and insurance mediation previously represented a major compliance risk for Handelsbanken and for the banking system as a whole. During the year, the Bank took extensive measures – system improvements, more rigorous demands on advisors' competency and skills, and stronger first-line control procedures – which have significantly mitigated the risk.

Within the framework of the Asset Quality Review and internal risk rating, Swedish and international supervisory authorities have raised questions primarily concerning the possibility of an external party being able to reproduce the risk rating performed as part of Handelsbanken's decentralised expert model. As a result of this, the compliance risk in this area has also been deemed higher. During the year, additional measures have been taken in the form of new support instructions to ensure that the Bank can retain its expert-based working method while continuing to comply with relevant requirements.

Another area that represents a potential risk for the Bank and the banking sector as a whole is data quality. The Bank is deemed to have complete information for its risk management, but the relevant requirements are strict in terms of automatic aggregation of data in various dimensions. An internal project has completed several risk-mitigation measures in this area – including an enhanced structure for data governance and data quality, documentation of the process for essential risk reports, information related to data quality and information supply – which have mitigated the risk, although further efforts are planned and being carried out.

Risk in the remuneration system

Handelsbanken takes a long-term view of its staff's employment. Remuneration must be on market terms and enable Handelsbanken to attract, retain and develop skilled staff and to ensure good management succession, thus contributing to achieving Handelsbanken's corporate goal. Handelsbanken has a low tolerance of risk in its remuneration system.

Remuneration risk is the risk of loss or other damage arising due to the remuneration system.

REMUNERATION SYSTEM

At Handelsbanken, remuneration is established individually when an employee takes up a new position and in local salary reviews. Taking into account the collective agreements that are binding upon Handelsbanken or corresponding local standardised contracts or agreements, remuneration shall be based on the Bank's model for setting salaries and the salary-setting factors it specifies: the nature and level of difficulty of the work, competency and skills, work performance and results achieved, leadership, the market, and being a cultural ambassador for the Bank. These principles have been applied for many years. They mean that managers at all levels participate regularly in salary processes and take responsibility for the Bank's salary policy and the growth in their own unit's staff costs.

To ensure that Handelsbanken has a well-designed remuneration system, risk in the remuneration system is managed as a separate risk class, with the same allocation of responsibilities as other types of risk. Handelsbanken has low tolerance of remuneration risks and actively strives to keep them at a low level. Variable remuneration is applied with great caution and is not offered to employees whose professional activities have a material impact on the Bank's risk profile.

In 2017, 202 employees (229) who have been able to earn variable remuneration earned SEK 60 million (79) in variable remuneration.

ORGANISATION AND RESPONSIBILITY

The principles for the Bank's remuneration system are stipulated in the remuneration policy which is decided upon by the Board. More detailed guidelines are decided by the CEO. The responsibility for identifying and managing remuneration risks rests with every responsible manager in the operations. Local risk control regularly monitors that the remuneration system is applied as intended. Group Risk Control is responsible for analysing the risks associated with the remuneration policy and the remuneration system annually before the Board considers and decides on the policy. In addition, Group Risk Control evaluates the application of the remuneration system. Based on this risk analysis and evaluation, an assessment is made as to whether the remuneration system is designed in a way that could threaten the Bank's financial position.

RISKS IN THE REMUNERATION SYSTEM

Handelsbanken's remuneration policy and remuneration system are deemed to generate low risks, fit in with the Bank's low tolerance of risks, and support the Bank's long-term interests. The remuneration system has a low impact on the Bank's financial risk, capital and liquidity situation. The total variable remuneration paid out during one year to employees in the Handelsbanken Group must not exceed 0.4 per cent of the Bank's common equity tier 1 capital. The data for the calculation of variable remuneration is risk-adjusted based on an assessment of present and future risks. There are rules about deferring the disbursement of variable remuneration and for completely or partly reducing the allocated deferred variable remuneration.

For more detailed information and statistics about the Bank's remuneration system, see the Corporate Governance Report and note G8 in the Annual Report.

Table 82 Variable remuneration

Variable remuneration	2017	2016
Earned variable remuneration[1], SEK m	60	79
Salaries and fees, SEK m	8 373	8 103
No. of persons able to earn variable remuneration[2]	202	229
Average number of employees	11 832	11 759
Earned variable remuneration, as a proportion of salaries and fees, %	0.7	1.0
No. of persons able to earn variable remuneration as a proportion of average number of employees, %	1.7	1.9

[1] All variable remuneration is paid in cash. The amounts are excluding social security costs. The amounts are determined after the Annual Report is published.
[2] The number of persons who are allocated variable remuneration is determined after the Annual Report is published. Of the 229 persons who were able to earn variable remuneration in 2016, 190 received an allocation.

Risk in the insurance operations

The risks in the insurance business arise partly in management of customers' insurance assets and how these assets match future commitments.

The risk in the insurance business mainly comprises market risks and insurance risks.

BUSINESS OPERATIONS AND RISKS IN INSURANCE OPERATIONS

Handelsbanken Liv conducts life insurance operations with traditional management, unit-linked insurance, portfolio bond insurance and risk insurance operations. Traditionally managed insurance is closed for new sales. The risk profile is measured using the standard formula prescribed by Solvency 2. Market risks and insurance risks dominate the risk profile.

MARKET RISK

Market risk refers to the combined risk that changes in risk factors in financial markets – such as changes in interest rates, property prices, equity prices, or exchange rates – will result in changes in the value of the company's investment assets and/or its commitments. Market risk arises in traditional management related to guarantee products and indirectly from savings products, unit-linked insurance, and portfolio bond insurance, where the policy holders themselves bear the risk but the company's earnings depend on the assets under management in the products.

Insurance liabilities also contain interest rate risk because the technical provisions are discounted using a risk-free interest rate.

In addition to the market risk that is calculated using the standard formula prescribed by Solvency 2, the company also uses its own model for calculating the total market risk in the traditionally managed portfolios. The model, which calculates VaR with a 99.5 per cent confidence level and a holding period of three months, specifies market risk as the size of the capital contribution required to fulfil the terms of the insurance contract. The main risk for Handelsbanken Liv's traditionally managed portfolios is interest rate risk. At year-end, VaR was SEK 736 million (785).

Handelsbanken Liv has a low risk tolerance. Through the company's investment guidelines and risk policy, the board of Handelsbanken Liv gives overall instructions on how the assets will be managed given the undertakings to the policy holders and the statutory requirements, how governance and control of the investments will be done, and how the total risk level in the company's combined assets and undertakings will be managed. Assets will only be invested in a prudent manner in assets and instruments whose risks can be identified, measured, analysed, and reported.

LIQUIDITY RISK

Liquidity risk is the risk that a company will not be able to meet its payment obligations when they fall due without being affected by unacceptable costs or losses. Liquidity risks are managed by daily monitoring of future disbursements and by investing a significant portion of the company's investment assets in listed securities with very good liquidity.

INSURANCE RISK

Insurance risk consists primarily of life and disability insurance risks and can be divided into the following categories.

Risk category

Mortality risk

The risk of loss, or of adverse change in the value of insurance commitments, resulting from changes in the levels of and trends in, or changes in the volatility of, mortality. Increased mortality leads to an increase in the value of the insurance commitments.

Longevity risk

The risk of loss, or of adverse change in the value of insurance commitments, resulting from changes in the levels of and trends in, or changes in the volatility of, mortality. Decreased mortality leads to an increase in the value of the insurance commitments.

Disability and morbidity risk

The risk of loss, or of adverse change in the value of insurance commitments, resulting from changes in the levels of and trends in, or changes in the volatility of, falling ill and recovering from illness.

Lapse risk

The risk of loss, or of adverse change in the value of insurance commitments, resulting from changes in the level or volatility of lapses, terminations, renewals and surrender.

Operating expense risk

The risk of loss, or of adverse change in the value of insurance commitments, resulting from changes in the levels of and trends in, or changes in the volatility of, operating expenses for insurance contracts.

Revision risk

The risk of loss, or of adverse change in the value of insurance commitments, resulting from changes in the levels of and trends in the revision rates for periodic disbursements, due to changes in regulatory requirements, the legal environment or the state of health of persons insured.

Catastrophe risk

The risk of loss, or of adverse change in the value of insurance commitments, resulting from the significant uncertainty of pricing and provisioning assumptions related to extreme or irregular events.

The Handelsbanken Liv Group is also exposed to risks connected with accident insurance. However, these are not judged to be material compared to other risks. Most of Handelsbanken Liv's policies are taken out by small companies and private individuals. There is no risk concentration, other than that most of the policies are taken out in Sweden.

The insurance operations report their market and insurance risks as well as operational risk to the insurance company's Board and Chief Executive, to the Bank's Group Risk Control and to the Bank's Risk Committee, which acts in an advisory capacity to the Bank's CEO and CFO.

More information about Handelsbanken Liv's corporate governance system and risk management is included in Handelsbanken Liv's publication, *Gemensam rapport om solvens och finansiell ställning* (in Swedish only), available at handelsbanken.se.

Economic capital

Handelsbanken is well capitalised in relation to its total risks. The Group's total values exceed by a wide margin the values that could be lost in an event that would be extremely detrimental to the Group.

Handelsbanken's model for calculating economic capital 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.

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 economic capital also includes risks in the insurance operations and risks in the Bank's pension obligations.

Economic capital is calculated with a time horizon of one year and a confidence level that reflects an acceptable level of risk and desired rating. The Board has determined that the calculation of EC must be made with a 99.97 per cent confidence level, which captures an event which is extremely unfavourable for the Bank. EC is the difference between the outcome in an average year – with positive results and good growth in the value of the Bank's assets – and the outcome at a 99.97 per cent confidence level.

Diversification effects between the different risk classes are taken into account when calculating EC. Since the risks are partly independent of each other, the capital requirement for all risks is lower than the sum of the economic capital for each individual risk.

The capital and other financial resources which form a buffer that can absorb negative outcomes are called available financial resources (AFR). AFR is Handelsbanken'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.

In risk and capital management, the Group applies a shareholder perspective. The economic capital model provides an overall view of the Group which makes it possible to optimise the risk and capital situation from the shareholder's perspective. The outcome of the calculations plays an important role when new transactions or structural changes are considered.

Credit risk is calculated using simulated outcomes of default for all the Group's counterparties and exposures.

Market risks comprise the risk in the assets classified as the trading book, the interest rate risk in the non-trading book, market risks in the insurance operations, and the risk in shareholdings in the non-trading book.

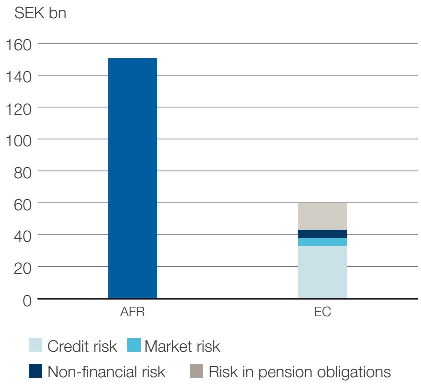
The risk in the pension obligations mainly consists of the risk of a decrease in the assets held for securing the Bank's pension obligations. Most of the pension obligations are in Sweden and are secured there in a pension foundation and insured in an occupational pension fund.

The non-financial risks are operational risk, business risk, property risk and insurance risk. Business risk is related to unexpected changes in financial performance in each business area. For example, these may arise due to demand or competition changing unexpectedly, thus resulting in lower volumes and squeezed margins. Property risk captures the risk of a fall in the value of the properties which the Bank owns.

At year-end, EC was SEK 60.0 billion (54.2), of which credit risks accounted for the main part of the total risk. The Board stipulates that the AFR/EC ratio should be at least 120 per cent. The ratio was 251 per cent (269) at year-end, which illustrates that the Bank is well-capitalised in relation to its overall risks. The Swedish Financial Supervisory Authority has come to the same conclusion in its overall capital assessment of the Bank.

The risk and capital situation reported is a snapshot picture, even though the risk calculations include margins of conservatism for business cycle fluctuations. To perform a final assessment of the Group's capital adequacy requirements, account must also be taken of the stress and scenario analysis carried out as part of the Bank's capital planning.

Figure 83 Total of AFR and EC including diversification 2017



Capital planning

If Handelsbanken were to suffer serious losses despite its low risk tolerance, the Bank holds capital to ensure its survival even in the wake of unexpected, extreme events. Capital planning is based on assessments of the capitalisation based on statutory capital requirements, coupled with calculations of economic capital and stress tests.

Handelsbanken's capital planning aims to ensure that the Group has the right amount of financial resources available at all times and that the capital is of optimal composition.

The capital requirement is a function of the Group's risks, expected development, the regulations and target ratios, Handelsbanken's model for economic capital (EC) and stress tests. The Bank's capital requirement is reported weekly to the CFO and the CEO, and at least quarterly to the Board.

As part of proactive capital planning, there is a contingency and action plan with specific measures that can be taken if the Bank needs to improve its capital position. The purpose of the contingency and action planning is to ensure that there is a warning system that identifies potential threats at an early stage and that the Group is prepared to take rapid action, if necessary.

At least annually, a long-term capital plan is drawn up, which is designed to give a comprehensive overview of the Group's current capital situation, a forecast of expected capital performance, and the outcome in various scenarios. These scenarios are designed to substantially differ from expected events and thus harmonise with the Group's low risk tolerance. The capital plan also contains proposals for how to maintain the capital situation at a satisfactory level in a strongly negative business environment, from both a regulatory and shareholder perspective.

The capital planning is divided into short-term and mid- to long-term forecasting. The part of capital planning that comprises short-term forecasts up to two years ahead principally focuses on assessing existing performance and the development of the capital requirement. This forecasting is necessary to enable continual adaptation of the size and composition of own funds.

Capital planning is performed by analysing changes in volume, risk and performance, and by monitoring events that may affect the capital requirements and capital level. Short-term forecasting includes all sub-components of the Group's own funds and, in addition to regulatory minimum requirements and buffers, the capital requirement includes Pillar 2 of the regulations. This work also includes conducting various sensitivity analyses, with a short-term perspective, of the expected change in the capital adequacy requirement and own funds. The Bank can thus be prepared to alter the size and composition of its own funds if required – for example through market operations.

The result of the short-term analysis forms the basis of any capital operations performed and is reported weekly to the CFO and CEO and, if necessary, to the Board. The analysis is based on a cautious basic scenario, with decision points in the near future for how existing earnings capacity can cope with various changes in volume, as well as the effects which arise from potential capital operations.

The part of capital planning that comprises mid- to long-term forecasts aims to ensure compliance with statutory capital adequacy requirements and that the Group's available financial resources (AFR) at all times cover by a good margin all risks calculated according to the EC model.

The long-term forecast also includes an assessment of the trend for the Bank's overall capital over the period: the minimum requirements, the combined buffer requirements and the Pillar 2 requirement. The objective is to forecast the expected performance and judge whether the Bank's resilience is satisfactory in various scenarios. The planning horizon is at least five years and takes account of the Group's overall business performance trend.

A basic scenario forms the foundation of the long-term capital forecast. This scenario is obtained from expected performance in the next five years regarding profit, volume growth, financial assumptions such as loan losses, and performance of the equity, property and fixed income markets. The basic scenario is then compared to the outcomes in a number of business cycle and crisis scenarios. The stress scenarios have been established after analysing historical links between the impacts of different macroeconomic variables on the financial markets and are selected using scenarios expected to have the most severe impact on the Bank.

At the end of 2017, the common equity tier 1 ratio was 22.7 per cent (25.1). The AFR/EC ratio was 251 per cent (269) at the same date. Thus, AFR exceeds the assessed internal capital requirement (EC) by a very good margin.

The Bank's strong position is also emphasised by the result of the various forwardlooking stress scenarios, showing that Handels-banken's long-term capital situation is very stable from both a financial and regulatory perspective.

Capital planning also monitors regulatory developments and assesses impact and needs due to additional new requirements. For example, an assessment has been made of the effects of future minimum requirement for own funds and eligible liabilities (MREL).

GROUP'S REGULATORY CAPITAL TARGETS

The Board continuously sets the targets for the Bank's capitalisation. A cornerstone of the internal capital requirement assessment of the regulatory capital situation is stress and scenario analysis of the Bank's situation, both long-term and short-term. The scenarios used are principally based on the Bank's internal risk tolerance and the direct requirements resulting from the regulations and other requirements from public authorities. In addition to the internal assessment of the capital requirement, the Swedish Financial Supervisory Authority has communicated that the target figures of Swedish banks must not be lower than the total capital requirement calculated by the Authority, regardless of the banks' internal calculations. The Bank has taken this into account when setting the target figures for the regulatory capitalisation.

The Board has decided that the common equity tier 1 ratio, which is the most relevant measure for the governance of the Bank under the current regulatory framework, under normal circumstances must be between 1 and 3 percentage points above the total common equity tier 1 capital assessment communicated to the Bank by the Swedish Financial Supervisory Authority. The other capital tiers (the tier 1 ratio and the total capital ratio) must be at least 1 percentage point above the total capital assessment communicated to the Bank by the Authority for the respective capital tiers.

In November 2017, the Financial Supervisory Authority informed Handelsbanken that it assesses that Handelsbanken's total requirement for common equity tier 1 capital at the end of Q3 2017 was SEK 102 billion, corresponding to a common equity tier 1 ratio of 20.2 per cent.

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 re-allocate 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	2017		2016	
SEK m	Consolidated situation	Banking group	Consolidated situation	Banking group
ASSETS				
Cash and balances with central banks	226 314	226 314	199 362	199 362
Other loans to central banks	38 920	38 920	25 527	25 527
Interest-bearing securities available as collateral with central banks	125 898	129 006	94 247	97 205
Loans to other credit institutions	20 250	20 250	31 347	31 347
Loans to the public	2 066 890	2 065 761	1 964 751	1 963 622
Value change of interest-hedged item in portfolio hedge	36	36	35	35
Bonds and other interest-bearing securities	46 220	49 601	60 311	63 909
of which interest-bearing instruments classified as available for sale (carrying amount)	*5 393*	*5 393*	*5 464*	*5 464*
of which interest-bearing instruments classified as available for sale, accumulated value change	*-67*	*-67*	*-62*	*-107*
Shares and participating interests	13 088	14 052	19 345	20 412
of which shares classified as available for sale (carrying amount)	*1 174*	*1 174*	*1 618*	*1 618*
of which shares classified as available for sale, accumulated value change	*554*	*554*	*1 041*	*1 041*
Investments in associates	6 574	297	6 510	255
Assets where the customer bears the value change risk	5 023	135 617	4 500	118 646
Derivative instruments	56 070	56 070	82 632	82 633
of which cash flow hedges	*654*	*654*	*2 487*	*2 487*
Reinsurance assets	-	14	-	9
Intangible assets	9 720	9 861	9 288	9 393
Property and equipment	2 238	2 238	2 387	2 387
Current tax assets	238	242	26	38
Deferred tax assets	399	399	962	962
of which related to cash flow hedges	-	-	-	-
of which related to interest-bearing instruments classified as available for sale	*19*	*19*	*22*	*22*
Pension assets	1 283	1 239	-	-
Assets held for sale	-	-	1	1
Other assets	10 351	10 715	5 338	5 615
Prepaid expenses and accrued income	6 288	6 345	6 153	6 222
Total assets	**2 635 800**	**2 766 977**	**2 512 722**	**2 627 580**
LIABILITIES AND EQUITY				
Liabilities to credit institutions	174 795	174 820	178 734	178 781
Deposits and borrowing from the public	939 792	941 967	826 274	829 336
Liabilities where the customer bears the value change risk	5 023	135 617	4 599	118 745
Issued securities	1 276 595	1 276 595	1 261 765	1 261 765
Derivative instruments	24 877	24 876	31 745	31 738
of which cash flow hedges	-	-	-	-
Short positions	2 072	2 072	1 572	1 572
Insurance liabilities	-	549	-	574
Current tax liabilities	368	394	488	514
Deferred tax liabilities	6 813	6 853	7 832	7 875
of which related to cash flow hedges	*184*	*184*	*702*	*702*
of which related to interest-bearing instruments classified as available for sale	*7*	*7*	*6*	*6*
Provisions	143	153	719	731
Pension obligations	-	-	2 121	2 161
Liabilities related to assets held for sale	-	-	-	-
Other liabilities	15 580	15 863	9 210	9 427
Accrued expenses and deferred income	12 589	12 718	14 412	14 580
Subordinated liabilities	32 896	32 896	33 400	33 400
of which tier 1 capital loans	*12 146*	*12 146*	*13 167*	*13 167*
of which loans with remaining time to maturity > 5 yrs	*17 745*	*17 745*	*17 354*	*17 354*
of which loans with remaining time to maturity < 5 yrs	-	-	-	-
of which other loans	*3 004*	*3 004*	*2 879*	*2 879*
Total liabilities	**2 491 543**	**2 625 373**	**2 372 871**	**2 491 199**
Minority interest	11	11	6	6
Share capital	3 013	3 013	3 013	3 013
Holdings of own shares	-	-	-	-
Share premium reserve	5 629	5 629	5 628	5 628
of which equity from combined financial instruments	*466*	*466*	*1 045*	*1 045*
Other reserves	8 116	8 106	9 273	9 268
Retained earnings	112 210	108 746	101 857	102 222
Profit for the year (belonging to shareholders of Svenska Handelsbanken AB)	15 278	16 099	20 074	16 244
Total equity	**144 257**	**141 604**	**139 851**	**136 381**
Total liabilities and equity	**2 635 800**	**2 766 977**	**2 512 722**	**2 627 580**

Table 85 Transitional 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.

Transitional own funds		2017			2016	
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)	7 597	
	of which: share capital	8 177		EBA list 26 (3)	7 597	
	of which: convertible securities	-		EBA list 26 (3)		
2	Retained earnings	112 210		26 (1) (c)	101 857	
3	Accumulated other comprehensive income (and any other reserves, to include unrealised gains and losses according to the applicable accounting standards)	8 445		26 (1)	10 084	
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	697		26 (2)	10 352	
6	**Common equity tier 1 (CET1) capital before regulatory adjustments**	**129 529**			**129 890**	
	Common equity tier 1 (CET1) capital: regulatory adjustments					
7	Additional value adjustments (negative amount)	-409		34, 105	-645	
8	Intangible assets (net of related tax liability) (negative amount)	-9 787		36 (1) (b), 37, 472 (4)	-9 355	
11	Fair value reserves related to gains or losses on cash flow hedges	-654		33 (a)	-2 487	
12	Negative amounts resulting from the calculation of expected loss amounts	-2 357		36 (1) (d), 40, 159, 472 (6)	-1 527	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-		33 (b)	-	
15	Defined benefit pension fund assets (negative amount)	-		36 (1) (e), 41, 472 (7)	-	
16	Direct and indirect holdings by an institution of own CET1 instruments (negative amount)	-569		36 (1) (f), 42, 472 (8)	-636	
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, 470, 472 (11)	-	
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), 470, 472 (5)	-	
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), 470, 472 (11)	-	
25	of which: deferred tax assets arising from temporary differences	-		36 (1) (c), 38, 48 (1) (a), 470, 472 (5)	-	
25a	Losses for the current financial year (negative amount)	-		36 (1) (a), 472 (3)	-	
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**	**-13 776**			**-14 650**	
29	**Common equity tier 1 (CET1) capital**	**115 753**			**115 240**	
	Additional tier 1 (AT1) capital: instruments					
30	Capital instruments and the related share premium accounts	9 794		51, 52	10 815	
32	of which: classified as liabilities under applicable accounting standards	9 794			10 815	
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)	2 353	2 353
36	**Additional tier 1 (AT1) capital before regulatory adjustments**	**12 146**			**13 168**	

Transitional own funds		2017			2016	
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
	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, 475 (2)	-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, 475 (4)	-	
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**	**11 746**			**12 768**	
45	**Tier 1 capital (T1 = CET1 + AT1)**	**127 499**			**128 008**	
	Tier 2 (T2) capital: instruments and provisions					
46	Capital instruments and the related share premium accounts	17 745		62 ,63	17 354	
51	**Tier 2 (T2) capital before regulatory adjustments**	**17 745**			**17 354**	
	Tier 2 (T2) capital: regulatory adjustments					
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)	-		63 (b) (i), 66 (a), 67, 477 (2)	-	
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, 477 (4)	-1 129	
57	**Total regulatory adjustments to tier 2 (T2) capital**	**-1 129**			**-1 129**	
58	**Tier 2 (T2) capital**	**16 616**			**16 225**	
59	**Total capital (TC = T1 + T2)**	**144 115**			**144 233**	
59a	Risk-weighted assets in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts)	509 032			458 787	
	Of which: additional capital to insurance companies in the Group not deducted from common equity tier 1 capital (residual values according to Regulation (EU) No 575/2013)	15 633		472, 472 (5), 472 (8) (b), 472 (10) (b), 472 (11) (b)	15 633	
	Of which: deferred tax claims not deducted from common equity tier 1 capital (residual values according to Regulation (EU) No 575/2013)	788		475, 475 (2) (b), 475 (2) (c), 475 (4) b)	1 856	
60	**Total risk-weighted assets**	**509 032**			**458 787**	
	Capital ratios and buffers					
61	Common equity tier 1 capital (as a percentage of total risk exposure amount)	22.7		92 (2) (a), 465	25.1	
62	Tier 1 capital (as a percentage of total risk exposure amount)	25.0		92 (2) (b), 465	27.9	
63	Total capital (as a percentage of total risk exposure amount)	28.3		92 (2) (c)	31.4	
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)	6.7		CRD 128, 129, 130	6.4	
65	of which: capital conservation buffer requirement	2.5			2.5	
66	of which: countercyclical buffer requirement	1.2			0.9	
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)	18.2		CRD 128	20.6	

Transitional own funds		2017			2016	
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
	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)	2		36 (1) (h), 45, 46, 472 (10), 56 (c), 59, 60, 475 (4), 66 (c), 69, 70, 477 (4)	0	
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, 470, 472 (11)	-	
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)	-315		36 (1) (c), 38, 48, 470, 472 (5)	-743	
	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	1 048		62	1 011	
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	2 090		62	1 796	
	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	116		484 (3), 486 (2) and (5)	174	
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	4 890		484 (4), 486 (3) and (5)	7 335	
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	2 963		484 (5), 486 (4) and (5)	4 444	
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-		484 (5), 486 (4) and (5)	-	

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

EU INS1 – Non-deducted participations in insurance undertakings SEK m	**2017**	**2016**
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 year.

	Amount of institution-specific countercyclical capital buffer	**2017**	**2016**
	SEK m	**010**	**010**
010	Total risk exposure amount	509 032	458 787
020	Institution specific countercyclical buffer rate	1,2	0,9
030	Institution specific countercyclical buffer requirement	6 121	4 039

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 year. Exposure in the Czech Republic, Slovakia and Iceland are new in the Other countries category.

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**		
010	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
020	**Total**	**146 880**	**2 078 527**	**703**	**-**	**-**	**20**	**32 828**	**189**	**2**	**33 019**		**6 121**

Geographical breakdown of credit exposures relevant for the calculation of the countercyclical capital buffer 2016

		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**
010	Breakdown by country												
	Sweden	19 357	1 303 202	396	-	-	-	13 027	71		13 098	44.9	1 814
	Norway	2 013	276 497	619	-	-	-	3 988	44		4 032	13.8	559
	Other countries	113 965	415 195	127	-	-	22	11 980	47	2	12 029	41.3	1 666
020	**Total**	**135 335**	**1 994 894**	**1 142**	**-**	**-**	**22**	**28 995**	**162**	**2**	**29 159**		**4 039**

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	**2017**	**2016**
Common equity tier 1 capital – opening amount	**115 240**	**100 535**
Profit for the period	15 278	20 074
Dividend	-14 581	-9 721
Conversions	99	2 518
Minority interests	0	0
Deferred tax	-427	-545
Capital contributions outside consolidated situation	0	0
Securitisation positions	0	0
Goodwill and other intangible assets	-432	-1 109
Value adjustments for positions measured at fair value	237	-91
Own shares	67	-193
Negative amounts resulting from the calculation of expected loss amounts	-830	-132
Items affected via other comprehensive income		
AFS shares	-10	40
AFS interest	12	53
Pensions (IAS 19)	3 510	3 797
Exchange rate effects	-750	1 247
Net investment hedging	-1 177	-111
Other, incl. changes in investment portfolio	-483	-1 122
Common equity tier 1 capital – closing amount	**115 753**	**115 240**
Additional tier 1 capital – opening amount	**12 768**	**11 933**
Additional tier 1 instruments		
Issues	0	0
Calls	0	0
Exchange rate effects	-1 021	837
Conversions	-1	-1
Regulatory adjustments capital	0	-1
Additional tier 1 capital – closing amount	**11 746**	**12 768**
Total tier 1 capital	**127 499**	**128 008**
Tier 2 capital – opening amount	**16 225**	**16 021**
Tier 2 capital instruments		
Issues	2 994	0
Calls	-2 999	0
Exchange rate effects	396	648
Adjustment for time to maturity	0	-444
Tier 2 capital – closing amount	**16 616**	**16 225**
Total own funds	**144 115**	**144 233**

CAPITAL REQUIREMENT

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. Handelsbanken also uses the standardised approach for calculating the capital requirements for market risk and operational risk.

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

Capital requirement in Pillar 2

For 2017, Handelsbanken's total common equity tier 1 capital requirement pursuant to Pillar 2 was SEK 45.5 billion, corresponding to 9.0 per cent. (Please see the Swedish Financial Supervisory Authority's memorandum 'Capital requirements for the Swedish banks, third quarter 2017', diary number 17-6342.) This capital requirement can be divided into requirements for credit risk, market risk, systemic risk, and other risks.

In the framework for Pillar 2, a risk weight floor of 25 per cent applies to Swedish mortgage loans, of which 10 percentage points are an extra capital charge for systemic risk. For Handelsbanken in 2017, this means a common equity tier 1 capital requirement in Pillar 2 of approx-imately SEK 22.3 billion, based on the Bank's mortgage loan volume at the end of Q3 2017. The risk weight floor means that banks must have buffer capital in Pillar 2 for Swedish mortgage loans corresponding to the difference between the actual risk weight in Pillar 1, which is based on the Bank's internal models, and the risk weight floor in Pillar 2. In addition, a risk weight floor of 22 per cent applies to Norwegian mortgage loans. Finnish mortgage loans are subject to a risk weight floor of 15 per cent as of 2018.

In Pillar 2, the Swedish Financial Supervisory Authority has also introduced a floor of 2.5 years for maturity assumptions for corporate exposures. The common equity tier 1 capital charge was SEK 2.1 billion, corresponding to 0.4 percentage points of the common equity tier 1 ratio. All together, the capital requirement for credit risk in Pillar 2 was SEK 31.7 billion, measured as a common equity tier 1 capital charge.

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 as well as the increased risk weight floor for Swedish mortgage loans, from 15 to 25 per cent. For Handelsbanken, the capital requirement for systemic risk in Pillar 2 was SEK 20.8 billion, measured as a common equity tier 1 capital requirement, based on the Bank's balance sheet at the end of Q3 2017. Of the SEK 20.8 billion, SEK 10.2 billion represent the two-percent charge.

In November 2017, the Swedish Financial Supervisory Authority made public that the Authority assessed Handelsbanken's total requirement for common equity tier 1 capital at the end of Q3 2017 to be SEK 102 billion, corresponding to a common equity tier 1 ratio of 20.2 per cent.

Table 90 EU OV1 – Overview of RWAs

The table shows risk exposure amounts (REA) for credit, counterparty, market and operational risk at year-end and the previous year. 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 year. REA for counterparty risk has decreased compared to the previous year. REA for market risk is in line with the previous year. REA for operational risk has increased compared to the previous year.

EU OV1 – Overview of RWAs			RWAs		Minimum capital requirements
SEK m			T	T–1	T
	1	Credit risk (excluding CCR)	419 557	364 538	33 565
Article 438(c)(d)	2	Of which the standardised approach	83 473	80 355	6 678
Article 438(c)(d)	3	Of which the foundation IRB (FIRB) approach	48 496	44 733	3 880
Article 438(c)(d)	4	Of which the advanced IRB (AIRB) approach	282 520	234 491	22 602
Article 438(d)	5	Of which equity IRB under the simple risk-weighted approach or the IMA	5 068	4 959	405
Article 107 Article 438(c)(d)	6	CCR	12 640	15 704	1 011
Article 438(c)(d)	7	Of which mark to market	12 632	15 698	1 011
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 ot the default fund of a CCP	8	6	1
Article 438(c)(d)	12	CVA	4 890	7 429	391
Article 438 e	13	Settlement risk	0	0	0
Article 449(o)(i)	14	Securitisation exposures in the non-trading book (after the cap)	22	24	2
	15	Of which IRB Approach	22	24	2
	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	10 310	10 910	825
	20	Of which the standardised approach	10 310	10 910	825
	21	Of which IMA			
Article 438 e	22	Large exposures			
Article 438(f)	23	Operational risk	61 613	60 182	4 929
	24	Of which basic indicator approach			
	25	Of which standardised approach	61 613	60 182	4 929
	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			62 125
	29	**Total**	**509 032**	**458 787**	**102 848**

CAPITAL ADEQUACY FOR THE FINANCIAL CONGLOMERATE

Institutions and insurance companies which are part of a financial conglomerate must have own funds which are adequate in relation to the capital requirement for the financial conglomerate. Own funds for the financial conglomerate have been calculated by means of a combination of the aggregation and settlement method and the consolidation method. This means that own funds for the consolidated situation have been combined with own funds for the Handelsbanken Liv AB insurance group. Correspondingly, in order to calculate the requirement for the conglomerate, the solvency requirement according to transitional regulations for the insurance group has been added to the capital requirement for the consolidated situation.

Table 91 Capital adequacy analysis

The table shows capital ratios. The total exposure has increased compared to the previous year.

Capital adequacy analysis %	2017	2016
Common equity tier 1 ratio, CRR	22.7	25.1
Tier 1 ratio, CRR	25.0	27.9
Total capital ratio, CRR	28.3	31.4
Total risk exposure amount, CRR, SEK m	509 032	458 787
Own funds in relation to capital requirement according to Basel I floor	142.0	148.0
Institution-specific buffer requirement	6.7	6.4
of which capital conservation buffer requirement	*2.5*	*2.5*
of which countercyclical capital buffer requirement	*1.2*	*0.9*
of which systemic risk buffer requirement	*3.0*	*3.0*
Common equity tier 1 capital available for use as a buffer	18.2	20.6

Table 92 Capital adequacy financial conglomerate

The table shows the relation between capital and capital requirement for the financial conglomerate. The levels are in line with the previous year.

Capital adequacy financial conglomerate SEK m	2017	2016
Own funds after reduction and adjustments	147 387	145 971
Capital requirement	107 751	102 557
Surplus	**39 636**	**43 414**

LEVERAGE RATIO

Handelsbanken's leverage ratio for 2017 was 4.6 per cent (4.8). The decrease was attributable to the Bank's tier 1 capital remaining practically unchanged while total assets increased.

Handelsbanken is of the opinion that the leverage ratio is an unsuitable measure to use for capital requirements because it entails high capital requirements for low-risk assets, which benefits banks with high risks in their balance sheets and gives banks with low risk a reason to dispose of low-risk assets.

For a more detailed discussion of the disadvantages of binding leverage ratio requirements, see Handelsbanken's publications: *The socio-economic consequences of introducing a leverage ratio for banks* (2010), *Risk-weighted capital requirements – do they work?* (2014), and the 2013 report Risk and Capital Management – Information according to Pillar 3, all of which are available at handelsbanken.se/ireng.

Table 93 LRCom: Leverage ratio common disclosure

The table shows the leverage ratio at year-end and the previous year. 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 year. The change is due to the fact that the Bank's tier 1 capital has remained largely static while the balance sheet has expanded.

LRCom: Leverage ratio common disclosure SEK m		2017	2016
	On-balance-sheet exposures (excluding derivatives and SFTs)		
1	On-balance-sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	2 571 653	2 417 175
2	(Asset amounts deducted in determining Tier 1 capital)	-13 775	-14 650
3	**Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)**	**2 557 878**	**2 402 525**
	Derivative exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	10 962	30 213
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	28 379	30 758
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)	-7 785	-6 917
8	(Exempted CCP leg of client-cleared trade exposures)	-	-
9	Adjusted effective notional amount of written credit derivatives	7 766	8 917
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-366	-679
11	**Total derivatives exposures (sum of lines 4 to 10)**	**38 955**	**62 292**
	SFT exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	8 077	12 914
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	-	-
14	Counterparty credit risk exposure for SFT assets	2 176	4 436
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)**	**10 253**	**17 350**
	Other off-balance-sheet exposures		
17	Off-balance-sheet exposures at gross notional amount	501 292	492 788
18	(Adjustments for conversion to credit equivalent amounts)	-320 747	-314 413
19	**Other off-balance-sheet exposures (sum of lines 17 and 18)**	**180 545**	**178 375**
	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	127 499	128 008
21	Leverage ratio total exposure measure (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)	2 787 631	2 660 542
	Leverage ratio		
22	Leverage ratio	4.6%	4.8%
	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 at year-end and the previous year.
The leverage ratio total exposure measure has increased compared to the previous year.

LRSum: Summary reconciliation of accounting assets and leverage ratio exposures SEK m		2017	2016
1	Total assets as per published financial statements	2 766 977	2 627 580
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	-131 176	-114 858
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	-17 115	-20 341
5	Adjustments for securities financing transactions (SFTs)	2 176	4 436
6	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	180 545	178 375
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)	-	-
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	-13 775	-14 650
8	**Leverage ratio total exposure measure**	**2 787 631**	**2 660 542**

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 at the end of 2017 and the previous year.
The total exposure has increased compared to the previous year.

LRSpl: Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures) SEK m		2017	2016
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	2 550 077	2 402 525
EU-2	Trading book exposures	227 178	175 292
EU-3	Non-trading book exposures, of which:	2 322 899	2 227 233
EU-4	Covered bonds	4 953	5 019
EU-5	Exposures treated as sovereigns	291 874	297 369
EU-6	Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	0	107
EU-7	Institutions	6 269	11 695
EU-8	Secured by mortgages of immovable properties	1 703 244	1 606 790
EU-9	Retail exposures	80 834	81 816
EU-10	Corporate	212 566	199 532
EU-11	Exposures in default	4 607	4 833
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	18 553	20 072

MINIMUM REQUIREMENT FOR OWN FUNDS AND ELIGIBLE LIABILITIES (MREL)

The Bank Recovery and Resolution Directive 2014/59/EU (BRRD) contains additional capital requirements. The Directive has been implemented in Sweden by the Resolution Act (2015:1016), which includes regulations for minimum requirements for own funds and eligible liabilities (MREL). The requirements are to be established by the resolution authority – in Sweden, the National Debt Office – for each individual institution in connection with the preparation of a resolution plan. The National Debt Office has published a memorandum dated 23 February 2017 that describes the principles for establishing the requirements during Q1 2017, and Handelsbanken's MREL requirement has been set at 6.6 per cent of the consolidated situation's total liabilities and own funds. The National Debt Office has not yet decided exactly what forms of debt instruments may be used to comply with future MREL requirements in addition to those included in own funds, though the National Debt Office has clearly stated that no specific subordination requirements will apply before 2022. Some changes in the overall regulations might also occur within the framework for the risk reduction package (see the Regulations and regulatory developments section).

Scope of application

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: Carrying values under scope of regulatory consolidation.

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**	

EU LI1 – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories 2016

	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	199 362	199 362	199 362				
Other loans to central banks	25 527	25 527	25 527				
Interest-bearing securities available as collateral with central banks	97 205	94 247	747			93 500	
Loans to other credit institutions	31 347	31 347	27 259	4 088			
Loans to the public	1 963 622	1 964 751	1 954 827	7 493	1 302		1 129
Value change of interest-hedged item in portfolio hedge	35	35	35				
Bonds and other interest-bearing securities	63 909	60 311	5 464			54 847	
Shares and participating interests	20 412	19 345	1 618	12 917		17 727	
Investments in associates	255	6 510	6 442				68
Assets where the customer bears the value change risk	118 646	4 500	4 500				
Derivative instruments	82 633	82 632		82 632		19 741	
Reinsurance assets	9						
Intangible assets	9 393	9 288	-				9 288
Property and equipment	2 387	2 387	2 387				
Current tax assets	38	26	26				
Deferred tax assets	962	962	219				743
Pension assets	-	-	-				-
Assets held for sale	1	1	1				
Other assets	5 615	5 338	2 981			2 357	
Prepaid expenses and accrued income	6 222	6 153	6 153				
Total assets	**2 627 580**	**2 512 722**	**2 237 548**	**107 130**	**1 302**	**188 173**	**11 228**
Liabilities							
Liabilities to credit institutions	178 781	178 734					
Deposits and borrowing from the public	829 336	826 274					
Liabilities where the customer bears the value change risk	118 745	4 599					
Issued securities	1 261 765	1 261 765				5 763	
Derivative instruments	31 738	31 745		31 745		23 280	
Short positions	1 572	1 572				1 572	
Insurance liabilities	574						
Current tax liabilities	514	488					
Deferred tax liabilities	7 875	7 832					
Provisions	731	719					
Pension obligations	2 161	2 121					
Liabilities related to assets held for sale	-	-					
Other liabilities	9 427	9 210					
Accrued expenses and deferred income	14 580	14 412					
Subordinated liabilities	33 400	33 400					
Total liabilities	**2 491 199**	**2 372 871**		**31 745**		**30 614**	

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 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**

	EU LI2 – Main sources of differences between regulatory exposure amounts and carrying values in financial statements 2016	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)**	**2 534 152**	**2 237 548**	**107 130**	**1 302**	**188 172**
2	Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	62 360		31 745		30 615
3	Total net amount under the regulatory scope of consolidation	2 564 767	2 237 548	107 130	1 302	218 787
4	Off-balance-sheet amounts	492 788	492 788		-	
5	*Differences in valuations*					
6	*Differences due to different netting rules, other than those already included in row 2*	*-228 468*		*-20 643*		*-207 825*
7	*Differences due to consideration of provisions*	*4 237*	*4 237*	*0*	-	
8	*Differences due to prudential filters*					
9	*Differences due to derivative exposure add-ons*	*30 758*		*30 758*		
10	**Exposure amounts considered for regulatory purposes**	**2 864 082**	**2 734 573**	**117 245**	**1 302**	**10 962**

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 2017.

EU LI3 – Outline of the differences in the scopes of consolidation (entity by entity) 2017

	a	b	c	d	e	f
		Method of regulatory consolidation				
Name of the entity	Method of accounting consolidation	Full consolidation	Proportional consolidation	Neither consolidated nor deducted	Deducted	Description of the entity
Handelsbanken Finans AB	Full consolidation	X				Credit institution
Kredit-Inkasso AB	Full consolidation	X				Non-financial corporation
Handelsbanken Rahoitus Oy	Full consolidation	X				Credit institution
Handelsbanken Finans (Shanghai) Financial Leasing Co., Ltd	Full consolidation	X				Credit institution
Stadshypotek AB	Full consolidation	X				Credit institution
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
Handelsbanken Fastigheter AB	Full consolidation	X				Non-financial corporation
AB Handel och Industri	Full consolidation	X				Non-financial corporation
Heartwood Wealth Management Limited	Full consolidation	X				Financial corporations other than credit institutions
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
Lokalbolig A/S	Full consolidation	X				Non-financial corporation
Rådstuplass 4 AS	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
Lila stugan i Stockholm AB	Full consolidation	X				Non-financial corporation
Blå stugan i Stockholm AB	Full consolidation	X				Non-financial corporation
Ecster AB	Full consolidation	X				Credit institution
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
Finansiell ID-teknik BID AB	Equity method		X			Non-financial corporation
Getswish AB	Equity method		X			Non-financial corporation
Upplysningscentralen UC AB	Equity method		X			Non-financial corporation
Optimix Vermogensbeheer N.V.	Full consolidation	X				Financial corporations other than credit institutions
Svenska Intecknings Garanti AB Sigab	Full consolidation	X				Non-financial corporation
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
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

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 at year-end 2017. It further specifies credit risk adjustments, write-offs and net values. The relation between specific credit risk adjustment and total net values is in line with the previous year. The total net value has increased compared to the previous year.

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.

EU CR1-B – Credit quality of exposures by industry or counterparty types 2016

		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	40	48 716	17		1	7	48 739
2	Mining and quarrying	21	8 556	41		0	6	8 536
3	Manufacturing	874	83 852	460		1	136	84 267
4	Electricity, gas, steam and air conditioning supply	33	35 655	21		0	3	35 667
5	Water supply	166	4 055	8		20	0	4 214
6	Construction	676	87 286	275		56	118	87 687
7	Wholesale and retail trade	381	56 541	185		86	150	56 737
8	Transport and storage	2 256	27 929	1 280		0	823	28 905
9	Accommodation and food service activities	50	13 206	17		1	9	13 240
10	Information and communication	34	17 148	21		0	6	17 161
10a	Financial and insurance activities	461	99 350	237		6	91	99 573
11	Real estate activities	1 443	654 901	605		47	263	655 740
12	Professional, scientific and technical activities	176	110 937	103		34	67	111 011
13	Administrative and support service activities	58	15 552	35		0	4	15 575
14	Public administration and defence, compulsory social security	60	44 154	13		0	13	44 201
15	Education	3	21 520	1		0	0	21 522
16	Human health services and social work activities	20	35 260	16		0	7	35 265
17	Arts, entertainment and recreation	17	10 752	17		0	1	10 752
17a	Activities of households as employers	0	1 192	0		0	0	1 192
17b	Activities of extraterritorial organisations and bodies	15	1 389	11		0	5	1 393
18	Other services[1]	2 911	1 333 250	1 282		69	369	1 334 879
19	**Total**	**9 695**	**2 711 202**	**4 643**		**320**	**2 077**	**2 716 255**

[1] Other services inlcude 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 at year-end 2017.
It further specifies credit risk adjustments, write-offs and net values. Gross exposures have increased compared to the previous year.

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
7	Other countries	908	155 420	247		50	106	156 081
8	**Total**	**9 740**	**2 860 428**	**5 159**		**151**	**1 971**	**2 865 010**

EU CR1-C – Credit quality of exposures by geography 2016

		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	2 877	1 509 093	1 534		199	707	1 510 436
2	UK	1 025	305 045	252		16	117	305 818
3	Norway	1 114	321 329	412		85	232	322 032
4	Denmark	2 538	142 824	1 413		5	760	143 949
5	Finland	1 337	251 633	648		15	148	252 322
6	The Netherlands	3	37 813	3		0	0	37 812
7	Other countries	801	143 465	380		0	112	143 885
8	**Total**	**9 695**	**2 711 202**	**4 643**		**320**	**2 077**	**2 716 255**

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 at year-end 2017.
Past due exposures have decreased compared to the previous year.

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 securitites	0	0	0	0	0	0
3	*Total exposures*	*15 070*	*594*	*192*	*421*	*412*	*1 875*

EU CR1-D – Ageing of past-due exposures 2016

		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	20 893	441	210	413	428	1 587
2	Debt securitites						24 722
3	*Total exposures*	*20 893*	*441*	*210*	*413*	*428*	*26 309*

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 at year-end 2017. 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 year. Relations between values are in line with the previous year.

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 performing but past due > 30 days and <= 90 days	Of which performing forborne	Of which non-performing				On performing exposures		On non-performing exposures			
SEK m					Of which defaulted	Of which impaired	Of which forborne		Of which forborne		Of which forborne	Of which non-performing exposures	Of which forborne exposures
010 Debt securitites	-	-	-	-	-	-	-	-	-	-	-	-	-
020 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
030 Off-balance-sheet exposures	519 612	-	823	412	412	-	358	93	23	0	7	32	428

EU CR1-E – Non-performing and forborne exposures 2016

	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 performing but past due > 30 days and <= 90 days	Of which performing forborne	Of which non-performing				On performing exposures		On non-performing exposures			
SEK m					Of which defaulted	Of which impaired	Of which forborne		Of which forborne		Of which forborne	Of which non-performing exposures	Of which forborne exposures
010 Debt securitites	-	-	-	-	-	-	-	-	-	-	-	-	-
020 Loans and advances	2 032 322	516	5 248	9 595	9 595	7 746	5 992	-454	-105	-4 189	-2 736	4 438	4 680
030 Off-balance-sheet exposures	500 506	-	327	467	467	0	306	58	5	11	0	54	33

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

The following table shows the changes from year-end 2016 to year-end 2017 for the amount of defaulted loans, impaired loans and impaired debt securities. The closing balance is in line with the previous year.

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**

EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities 2016

		a
SEK m		Gross carrying value defaulted exposures
1	**Opening balance**	**8 844**
2	Loans an debt securities that have defaulted or impaired since the last reporting period	1 816
3	Returned to non-defaulted status	
4	Amounts written-off	-2 314
5	Other changes	-600
6	**Closing balance**	**7 746**

Table TB6 Change in provision for probable loan losses

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**

Change in provision for probable loan losses 2016 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	**-4 444**	**-278**	**-94**	**-4 816**
The year's provision	-1 899	-62	-67	-2 028
Reversal of previous provisions	377	-	10	387
Utilised for actual loan losses	1 863		47	1 910
Foreign exchange effect etc.	-85	-8	-3	-96
Provision at end of year	**-4 188**	**-348**	**-107**	**-4 643**

Collateral and actions that reduce the capital requirement

Table TB7 EU CR3 – CRM techniques – Overview

The table shows secured exposures and unsecured exposures at year-end 2017. The outstanding secured exposures are broken down by amounts secured by collateral, guarantees and credit derivatives. Total secured exposures have increased compared to the previous year.

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	-

EU CR3 – CRM techniques – Overview 2016		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	810 113	1 881 420	1 794 955	86 465	-
2	Total debt securities	24 722	0	0	0	-
3	**Total exposures**	**834 835**	**1 881 420**	**1 794 955**	**86 465**	**-**
4	Of which defaulted	2 226	3 113	3 057	56	-

Capital requirements for credit risk – IRB Approach and standardised approach

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 2017. It comprises figures obtained using both the standardised and the IRB Approach. Total exposures in the IRB Approach have increased compared to the previous year. Total exposures in the standardised approach have decreased compared to the previous year. 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.

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**

EU CRB-C – Geographical breakdown of exposures 2016

		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								
2	Institutions	17 033	1 736	1 641	1 488	541	700	5 141	28 279
3	Corporates	658 412	166 636	212 862	53 683	99 086	3 378	81 669	1 275 726
4	Retail	779 098	883	97 330	60 889	39 810	175	4 626	982 812
5	Equity	807		20	513				1 340
6	**Total IRB Approach**	**1 455 351**	**169 255**	**311 853**	**116 573**	**139 437**	**4 253**	**91 436**	**2 288 158**
7	Central governments or central banks	14 849	63 691	6 328	20 926	103 226	395	32 406	241 821
8	Regional governments or local authorities	15 693		101	52	7 650			23 496
9	Public sector entities								
10	Multilateral development banks					35		448	483
11	International organisations								
12	Institutions	36	57		1		15	1 791	1 901
13	Corporates	2 448	883	724	1 790	169	939	12 292	19 245
14	Retail	5 395	15 125	1 927	4 257	1 237	650	1 443	30 035
15	Secured by mortgages on immovable property	1 652	56 531	943	56	29	31 545	3 010	93 765
16	Exposures in default	9	91		2	1	1	102	206
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	6 749			3	44			6 796
22	Other exposures	8 254	185	156	289	494	13	958	10 349
23	**Total standardised approach**	**55 086**	**136 563**	**10 179**	**27 376**	**112 885**	**33 559**	**52 450**	**428 097**
24	**Total**	**1 510 436**	**305 818**	**322 032**	**143 949**	**252 322**	**37 812**	**143 885**	**2 716 255**

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 2017. It comprises figures obtained using both the standardised and the IRB Approach. Total exposures in the IRB Approach have increased compared to the previous year. Total exposures in the standardised approach have decreased compared to the previous year. 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.

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, compul-sory 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**

EU CRB-D – Concentration of exposures by industry or counterparty types 2016

	SEK m	a Agri-culture, forestry and fishing	b Mining and quarrying	c Manufac-turing	d Electricity, gas, steam and air conditio-ning supply	e Water supply	f Cons-truction	g Wholesale and retail trade	h Transport and storage	i Accom-modation and food service activities	j Informa-tion and communi-cation	k Financial and insurance activities	l Real estate activities	m Profes-sional, scientific and technical activities	n Adminis-trative and support service activities	o Public adminis-tration and defence, compul-sory social security	p Education	q Human health services and social work activities	r Arts, entertain-ment and recreation	s Other services	t Activities of house-holds as em-ployers	u Activities of extra-territorial organisa-tions and bodies	v Total
1	Central governments or central banks																						
2	Institutions											19 439				3 114				5 725			28 279
3	Corporates	16 967	8 456	78 829	34 164	3 818	71 171	44 482	25 533	10 550	11 866	71 810	641 723	89 835	11 941	20 068	10 248	21 622	3 139	97 095	1 189	1 219	1 275 726
4	Retail	30 534	71	4 870	848	99	11 609	11 473	3 152	2 445	5 163	927	9 441	19 981	3 465	12	3 292	5 008	7 361	862 897	2	163	982 812
5	Equity								0		0									1 340			1 340
6	**Total IRB Approach**	**47 501**	**8 527**	**83 699**	**35 012**	**3 917**	**82 780**	**55 955**	**28 685**	**12 995**	**17 030**	**92 176**	**651 164**	**109 815**	**15 406**	**23 195**	**13 540**	**26 629**	**10 500**	**967 057**	**1 192**	**1 382**	**2 288 158**
7	Central governments or central banks				645								3 033			13 265		21		224 855		2	241 821
8	Regional governments or local authorities					291		2	12							6 716	7 943	8 532		0			23 496
9	Public sector entities																						
10	Multilateral development banks											35								448			483
11	International organisations																						
12	Institutions											294				183				1 424			1 901
13	Corporates	985	1	441		1	4 635	503	155	143	7	756	383	548	54	516	11	2	37	10 067		0	19 245
14	Retail	218	3	119	11	5	239	260	53	95	77	95	364	564	85	326	25	75	60	27 358		1	30 035
15	Secured by mortgages on immovable property	34	5	8			23	8		4	4	4	795	83	14		2	5	155	92 613		8	93 765
16	Exposures in default			0			10	9		3					0					184			206
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										43	6 209			16					528			6 796
22	Other exposures											4								10 345			10 349
23	**Total standardised approach**	1 238	9	568	656	297	4 907	782	220	245	131	7 397	4 575	1 195	168	21 006	7 982	8 635	252	367 822		12	428 097
24	Total	48 739	8 536	84 267	35 667	4 214	87 687	56 737	28 905	13 240	17 161	99 573	655 740	111 011	15 575	44 201	21 522	35 265	10 752	1 334 879	1 192	1 393	2 716 255

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 2017. It comprises figures obtained using both the standardised and the IRB Approach. Total exposures in the IRB Approach with maturities less than one year have increased compared to the previous year. Total exposures in the standardised approach with maturities less than one year have decreased compared to the previous year. 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.

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*

EU CRB-E – Maturity of exposures 2016

		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						
2	Institutions		16 622	5 165	6 491	0	28 279
3	Corporates		643 765	501 726	129 100	1 136	1 275 726
4	Retail		488 421	224 819	166 610	102 963	982 812
5	Equity		0	0	0	1 340	1 340
6	*Total IRB Approach*		*1 148 808*	*731 709*	*302 201*	*105 439*	*2 288 158*
7	Central governments or central banks		238 519	346	2 907	50	241 821
8	Regional governments or local authorities		7 168	9 946	6 382	0	23 496
9	Public sector entities						
10	Multilateral development banks		35	448	0	0	483
11	International organisations						
12	Institutions		1 796	104	0	1	1 901
13	Corporates		7 201	8 581	1 227	2 236	19 245
14	Retail		4 254	2 947	4 333	18 501	30 035
15	Secured by mortgages on immovable property		10 253	23 436	36 012	24 063	93 765
16	Exposures in default		104	2	40	60	206
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	6 796	6 796
22	Other exposures		412	0	4	9 933	10 349
23	*Total standardised approach*		*269 741*	*45 811*	*50 905*	*61 640*	*428 097*
24	*Total*		*1 418 549*	*777 521*	*353 106*	*167 079*	*2 716 255*

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 at year-end. 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.

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**

EU CR7 – IRB Approach – Effect on the RWAs of credit derivatives used as CRM techniques 2016

		a	b
SEK m		Pre-credit derivatives RWAs	Actual RWAs
1	**Exposures under FIRB**	**42 347**	**42 347**
2	Central governments and central banks		
3	Institutions	6 176	6 176
4	Corporates – SMEs	4 418	4 418
5	Corporates – Specialised lending		
6	Corporates – Other	31 753	31 753
7	**Exposures under AIRB**	**234 491**	**234 491**
8	Central governments and central banks		
9	Institutions		
10	Corporates – SMEs	86 308	86 308
11	Corporates – Specialised lending		
12	Corporates – Other	75 785	75 785
13	Retail – Secured by real estate SMEs	1 706	1 706
14	Retail – Secured by real estate non-SMEs	48 178	48 178
15	Retail – Qualifying revolving		
16	Retail - Other SMEs	5 434	5 434
17	Retail – Other non-SMEs	17 080	17 080
18	Equity IRB	4 959	4 959
19	Other non-credit obligation assets	2 387	2 387
20	**Total**	**284 184**	**284 184**

Breakdown, risk class and country

Table TB12 IRB-approved corporate exposures, broken down by risk class and country

IRB-approved corporate exposures, broken down by risk class and country 2017

%	Exposure amount-weighted average PD	Exposure, SEK m	Proportion exposure amount	Accum. % of total exposure amount	Exposure amount-weighted average LGD	Sweden	UK	Norway	Denmark	Finland	The Nether-lands	USA	Other countries
Risk class 1	0.03	83 739	7.99	7.99	20.13	9.55	0.74	8.86	0.99	10.41	11.43	25.48	10.00
Risk class 2	0.04	298 064	28.44	36.43	22.16	31.37	19.00	25.11	19.59	35.09	22.05	32.54	53.10
Risk class 3	0.13	404 245	38.57	75.00	26.69	35.44	49.52	42.03	43.44	31.30	60.01	22.58	29.50
Risk class 4	0.46	168 692	16.09	91.09	28.90	14.57	24.49	14.20	23.58	12.30	6.50	12.40	2.95
Risk class 5	1.51	63 988	6.11	97.20	31.68	7.06	4.14	5.52	6.28	5.24	0.02	6.35	1.17
Risk class 6	5.41	11 261	1.07	98.27	33.91	0.91	0.54	1.94	1.35	1.36	-	0.49	1.64
Risk class 7	18.29	5 522	0.53	98.80	33.06	0.48	0.27	0.57	0.57	1.51	-	0.16	0.76
Risk class 8	32.65	3 914	0.37	99.17	37.59	0.27	0.06	0.65	0.25	1.51	-	-	0.19
Risk class 9	45.00	2 306	0.22	99.39	38.34	0.13	0.04	0.78	0.04	0.20	-	-	-
Defaults	100.00	6 378	0.61	100.00	40.84	0.21	1.20	0.34	3.92	1.08	-	-	0.69
Total		**1 048 109**	**100,00**										
	Risk class 1–5	**1 018 728**											
	Risk class 1–5	**97.20%**											

IRB-approved corporate exposures, broken down by risk class and country 2016

%	Exposure amount-weighted average PD	Exposure, SEK m	Proportion exposure amount	Accum. % of total exposure amount	Exposure amount-weighted average LGD	Sweden	UK	Norway	Denmark	Finland	The Nether-lands	USA	Other countries
Risk class 1	0.03	93 757	9.29	9.29	24.36	9.96	0.82	13.13	2.04	9.66	15.98	36.73	8.21
Risk class 2	0.04	287 518	28.50	37.79	23.38	30.25	20.08	25.24	20.42	42.25	36.41	23.01	55.06
Risk class 3	0.08	383 952	38.06	75.85	27.08	37.16	46.77	39.35	37.86	28.78	36.09	30.97	21.58
Risk class 4	0.26	154 643	15.33	91.18	28.83	14.05	24.11	12.79	25.58	10.40	8.71	7.97	6.19
Risk class 5	0.82	61 452	6.09	97.27	30.63	6.88	5.05	5.76	7.36	3.87	2.81	1.17	3.48
Risk class 6	2.86	10 019	0.99	98.26	33.74	0.75	1.47	1.06	0.78	1.69	-	0.15	3.11
Risk class 7	8.77	6 876	0.68	98.94	35.73	0.48	0.51	1.13	0.44	1.72	-	-	1.64
Risk class 8	15.71	3 340	0.33	99.27	37.25	0.11	0.35	1.09	0.25	0.34	-	-	0.06
Risk class 9	32.70	760	0.08	99.35	39.07	0.10	0.02	0.07	0.05	0.04	-	-	-
Defaults	100.00	6 580	0,65	100,00	41,94	0,26	0,82	0,38	5,22	1,25	-	-	0,67
Total		**1 008 897**	**100.00**										
	Risk class 1–5	**981 322**											
	Risk class 1–5	**97.27%**											

Table TB13 IRB-approved institutional exposures, broken down by risk class and country

IRB-approved institutional exposures, broken down by risk class and country 2017

%	Exposure amount-weighted average PD	Exposure, SEK m	Proportion exposure amount	Accum. % of total exposure amount	Exposure amount-weighted average LGD	Sweden	UK	Norway	Denmark	Finland	The Nether-lands	USA	Other countries
Risk class 1	0.05	28 202	39.05	39.05	19.99	38.66	77.14	81.00	11.51	-	98.60	8.09	62.89
Risk class 2	0.12	35 923	49.74	88.79	18.23	50.62	21.08	1.38	3.49	16.24	-	91.02	4.38
Risk class 3	0.21	3 633	5.03	93.82	41.22	4.28	0.07	0.08	10.65	4.00	1.40	0.87	32.55
Risk class 4	0.51	4 246	5.88	99.70	17.81	6.23	0.98	2.61	-	-	-	0.01	0.18
Risk class 5	1.24	90	0.12	99.82	31.41	0.13	0.73	0.39	-	-	-	0.00	0.00
Risk class 6	2.55	116	0.16	99.98	45.00	0.06	0.01	14.54	74.34	79.76	-	0.00	0.00
Risk class 7	13.25	5	0.01	99.99	45.00	0.01	-	-	-	-	-	-	0.00
Risk class 8	35.00	2	0.00	99.99	45.00	0.00	-	-	-	-	-	-	-
Risk class 9	35.00	6	0.01	100.00	45.00	0.01	-	-	-	-	-	-	-
Defaults	100.00	-	-	100.00	-	-	-	-	-	-	-	-	-
Total		**72 223**	**100.00**										
	Risk class 1–5	**72 094**											
	Risk class 1–5	**99.82%**											

IRB-approved institutional exposures, broken down by risk class and country 2016

%	Exposure amount-weighted average PD	Exposure, SEK m	Proportion exposure amount	Accum. % of total exposure amount	Exposure amount-weighted average LGD	Sweden	UK	Norway	Denmark	Finland	The Nether-lands	USA	Other countries
Risk class 1	0.05	45 447	43.21	43.21	20.08	42.55	90.09	20.01	4.67	-	-	-	44.99
Risk class 2	0.12	46 709	44.40	87.61	16.02	46.76	2.80	73.39	0.96	10.64	-	58.68	7.89
Risk class 3	0.21	6 342	6.03	93.64	27.90	4.20	1.59	0.04	59.13	9.95	-	5.83	47.03
Risk class 4	0.51	6 487	6.17	99.81	14.97	6.37	4.68	0.47	0.15	77.46	-	31.51	0.05
Risk class 5	1.24	92	0.09	99.90	38.31	0.08	0.08	4.25	0.53	-	-	3.98	0.04
Risk class 6	2.55	75	0.07	99.97	45.00	0.01	0.07	1.68	34.56	-	-	-	-
Risk class 7	13.25	25	0.02	99.99	45.00	0.02	0.69	0.16	-	1.95	-	-	-
Risk class 8	35.00	-	-	99.99	-	-	-	-	-	-	-	-	-
Risk class 9	35.00	8	0.01	100.00	45.00	0.01	-	-	-	-	-	-	-
Defaults	100.00	-	-	100.00	-	-	-	-	-	-	-	-	-
Total		**105 185**	**100.00**										
	Risk class 1–5	**105 077**											
	Risk class 1–5	**99.90%**											

Table TB14 IRB-approved retail exposures, private individuals, broken down by risk class and country

IRB-approved retail exposures, private individuals, broken down by risk class and country 2017

%	Exposure amount-weighted average PD	Exposure, SEK m	Proportion exposure amount	Accum. % of total exposure amount	Exposure amount-weighted average LGD	Sweden	UK	Norway	Denmark	Finland	The Nether-lands	USA	Other countries
Risk class 1	0.04	287 919	28.74	28.74	14.33	31.53		-	22.62	49.55			
Risk class 2	0.08	355 062	35.44	64.19	16.93	34.47		33.91	58.50	21.51			
Risk class 3	0.15	213 585	21.32	85.51	17.97	20.20		42.80	16.10	2.18			
Risk class 4	0.39	86 335	8.62	94.13	19.70	10.15		-	0.93	10.29			
Risk class 5	0.90	36 887	3.68	97.81	23.05	1.64		21.14	-	9.98			
Risk class 6	2.61	5 324	0.53	98.34	20.67	0.64		-	-	0.51			
Risk class 7	5.14	7 892	0.79	99.13	23.12	0.60		1.14	1.10	3.21			
Risk class 8	4.00	1 696	0.17	99.30	20.06	0.13		0.72	-	-			
Risk class 9	8.54	5 214	0.52	99.82	19.64	0.53		0.15	0.23	1.64			
Defaults	100.00	1 819	0.18	100.00	38.34	0.11		0.14	0.52	1.12			
Total		**1 001 733**	**100.00**										
	Risk class 1–5	979 788											
	Risk class 1–5	97.81%											

IRB-approved retail exposures, private individuals, broken down by risk class and country 2016

%	Exposure amount-weighted average PD	Exposure, SEK m	Proportion exposure amount	Accum. % of total exposure amount	Exposure amount-weighted average LGD	Sweden	UK	Norway	Denmark	Finland	The Nether-lands	USA	Other countries
Risk class 1	0.04	264 590	27.70	27.70	14.67	30.64		-	22.83	49.49			
Risk class 2	0.07	340 306	35.62	63.32	17.26	34.84		33.80	57.49	21.97			
Risk class 3	0.15	205 825	21.54	84.86	17.53	20.37		41.76	14.88	2.13			
Risk class 4	0.38	84 377	8.83	93.69	19.94	10.40		-	2.87	10.10			
Risk class 5	0.78	38 238	4.00	97.69	29.00	1.64		22.33	-	9.30			
Risk class 6	2.33	5 121	0.54	98.23	20.02	0.65		-	-	0.49			
Risk class 7	4.34	7 968	0.83	99.06	26.56	0.64		1.19	1.17	3.20			
Risk class 8	3.71	1 591	0.17	99.23	22.57	0.13		0.58	-	-			
Risk class 9	8.10	5 439	0.57	99.80	20.00	0.57		0.17	0.19	2.12			
Defaults	100.00	1 891	0.20	100.00	39.65	0.12		0.17	0.57	1.20			
Total		**955 346**	**100.00**										
	Risk class 1–5	933 336											
	Risk class 1–5	97.70%											

Table TB15 IRB-approved retail exposures, small companies, broken down by risk class and country

IRB-approved retail exposures, small companies, broken down by risk class and country 2017

%	Exposure amount-weighted average PD	Exposure, SEK m	Proportion exposure amount	Accum. % of total exposure amount	Exposure amount-weighted average LGD	Sweden	UK	Norway	Denmark	Finland	The Nether-lands	USA	Other countries
Risk class 1	0.17	6 878	27.58	27.58	32.39	26.58		22.65	27.43	46.95			
Risk class 2	0.57	6 112	24.51	52.09	34.28	23.10		-	43.23	23.46			
Risk class 3	0.89	2 473	9.92	62.01	35.09	12.18		-	-	1.42			
Risk class 4	1.23	4 759	19.09	81.10	29.01	18.95		37.18	17.06	13.80			
Risk class 5	3.35	1 883	7.55	88.65	35.66	8.10		12.32	3.40	4.55			
Risk class 6	4.86	906	3.63	92.28	32.40	3.88		2.16	2.61	2.81			
Risk class 7	6.22	571	2.29	94.57	35.49	2.06		17.55	-	0.85			
Risk class 8	10.46	506	2.03	96.60	32.85	2.03		3.83	2.01	0.90			
Risk class 9	22.05	334	1.34	97.94	34.07	1.33		2.53	1.02	1.40			
Defaults	100.00	513	2.06	100.00	44.81	1.80		1.78	3.24	3.85			
Total		**24 935**	**100.00**										
	Risk class 1–5	**22 105**											
	Risk class 1–5	**88.65%**											

IRB-approved retail exposures, small companies, broken down by risk class and country 2016

%	Exposure amount-weighted average PD	Exposure, SEK m	Proportion exposure amount	Accum. % of total exposure amount	Exposure amount-weighted average LGD	Sweden	UK	Norway	Denmark	Finland	The Nether-lands	USA	Other countries
Risk class 1	0.16	7 098	26.36	26.36	32.05	25.29		23.94	26.30	46.14			
Risk class 2	0.52	6 688	24.84	51.20	31.53	23.62		-	42.60	21.96			
Risk class 3	0.77	2 856	10.61	61.81	30.26	13.16		-	-	1.00			
Risk class 4	1.05	5 114	18.99	80.80	29.17	18.64		38.52	17.68	13.35			
Risk class 5	2.97	2 084	7.74	88.54	35.35	8.24		11.31	3.96	5.59			
Risk class 6	4.10	989	3.67	92.21	31.73	3.98		2.13	2.44	2.62			
Risk class 7	5.78	586	2.18	94.39	36.81	1.97		15.53	-	0.76			
Risk class 8	9.03	521	1.94	96.33	33.33	2.00		2.40	1.70	1.05			
Risk class 9	20.05	382	1.42	97.75	35.43	1.28		4.96	1.06	2.00			
Defaults	100.00	606	2.25	100.00	44.83	1.82		1.21	4.26	5.53			
Total		**26 924**	**100.00**										
	Risk class 1–5	**23 840**											
	Risk class 1–5	**88.55%**											

Table TB16 Average PD and LGD by country, exposure amount-weighted

Average PD and LGD by country, exposure amount-weighted 2017

	Corporate		Institute		Retail, property lending		Retail, other		Sovereign exposures	
%	PD	LGD	PD	LGD	PD	LGD	PD	LGD	PD	LGD
Sweden	0.72	23.45	0.13	19.36	0.21	14.01	2.24	30.27	0.006	41.01
UK	1.60	25.76	0.08	45.00					0.002	45.00
Norway	1.38	28.26	0.43	44.91	0.38	20.02	0.78	24.46	0.002	45.00
Denmark	4.51	31.95	1.93	45.00	0.65	31.96	3.87	50.88	0.002	45.00
Finland	2.11	26.14	2.06	45.00	1.54	27.00	6.81	44.36	0.004	45.00
The Netherlands	0.09	44.87	0.05	45.00					0.002	45.00
Other countries	0.56	44.57	0.11	29.53					0.004	44.44

Average PD and LGD by country, exposure amount-weighted 2016

	Corporate		Institute		Retail, property lending		Retail, other	
%	PD	LGD	PD	LGD	PD	LGD	PD	LGD
Sweden	0.51	23.97	0.13	17.73	0.22	13.60	2.21	28.67
UK	1.12	25.75	0.17	45.00				
Norway	0.82	28.83	0.22	45.00	0.39	20.03	0.71	46.50
Denmark	5.55	34.17	1.02	45.00	0.59	32.86	4.33	51.00
Finland	1.62	27.98	0.69	45.00	1.63	27.00	7.02	44.57
The Netherlands	0.17	44.93	-	-				
Other countries	0.56	43.87	0.12	28.07				

Breakdown, risk class according to IRB Approach without own estimates of LGD and CCF

Table TB17 Corporate exposures – IRB Approach without own estimates of LGD and CCF, broken down by risk class

Corporate exposures – IRB Approach without own estimates of LGD and CCF, broken down by risk class

	2017					2016				
SEK m	Exposure amount	Exposure amount-weighted average PD, %	Exposure amount-weighted average LGD, %	Risk weighted exposure amount	Average risk weighting, %	Exposure amount	Exposure amount-weighted average PD, %	Exposure amount-weighted average LGD, %	Risk weighted exposure amount	Average risk weighting, %
Risk class 1	22 110	0.03	30.60	2 278	10.30	26 996	0.03	34.39	3 099	11.48
Risk class 2	35 276	0.03	41.39	5 073	14.38	43 039	0.05	40.56	8 523	19.80
Risk class 3	48 939	0.11	36.35	12 502	25.55	51 133	0.17	36.48	16 285	31.84
Risk class 4	14 257	0.40	38.77	7 193	50.45	12 523	0.39	36.54	5 998	47.90
Risk class 5	7 330	1.21	41.90	6 344	86.56	4 033	0.98	39.17	3 057	75.81
Risk class 6	1 842	3.76	39.89	2 236	121.40	1 243	3.15	42.84	1 523	122.54
Risk class 7	546	13.44	39.82	887	162.49	916	7.47	44.01	1 487	162.28
Risk class 8	169	32.32	44.36	425	252.26	56	16.58	42.63	93	166.71
Risk class 9	97	45.00	43.16	198	204.56	32	32.98	40.61	48	152.38
Defaults	644	100.00	43.52	0	0.00	897	100.00	43.08	0	0.00
Total	**131 210**			**37 136**		**140 868**			**40 113**	

Table TB18 Institutional exposures – IRB Approach without own estimates of LGD and CCF, broken down by risk class

Institutional exposures – IRB Approach without own estimates of LGD and CCF, broken down by risk class

	2017						2016					
SEK m	Exposure amount	Exposure amount-weighted average PD, %	Exposure amount-weighted average LGD, %	Risk weighted exposure amount	Average risk weighting, %	External rating	Exposure amount	Exposure amount-weighted average PD, %	Exposure amount-weighted average LGD, %	Risk weighted exposure amount	Average risk weighting, %	External rating
Risk class 1	28 202	0.05	19.99	3 504	12.42	Aaa, Aa	45 447	0.05	20.08	5 378	11.83	Aaa, Aa
Risk class 2	35 923	0.12	18.23	6 684	18.61	Aa, A	46 709	0.12	16.02	7 492	16.04	Aa, A
Risk class 3	3 633	0.21	41.22	1 803	49.62	A	6 342	0.21	27.90	2 126	33.53	A
Risk class 4	4 246	0.51	17.81	1 635	38.51	Baa	6 487	0.51	14.97	2 100	32.38	Baa
Risk class 5	90	1.24	31.41	84	92.95	Baa, Ba	92	1.24	38.31	96	104.30	Baa, Ba
Risk class 6	116	2.55	45.00	185	159.69	Ba	75	2.55	45.00	119	159.41	Ba
Risk class 7	5	13.25	45.00	12	254.66	B	25	13.25	45.00	63	256.37	B
Risk class 8	2	35.00	45.00	6	288.04	Caa	-	35.00	-	-	-	Caa
Risk class 9	6	35.00	45.00	16	270.03	Caa, C	8	35.00	45.00	23	281.28	Caa, C
Defaults	-	-	-	-	-	-	0	100.00	-	-	-	-
Total	**72 223**			**13 929**			**105 185**			**17 397**		

Breakdown, risk class according to IRB Approach with own estimates of LGD and CCF

Table TB19 Corporate exposures – IRB Approach with own estimates of LGD and CCF, broken down by risk class

Corporate exposures – IRB Approach with own estimates of LGD and CCF, broken down by risk class

	2017					2016				
SEK m	Exposure amount	Exposure amount-weighted average PD, %	Exposure amount-weighted average LGD, %	Risk weighted exposure amount	Average risk weighting, %	Exposure amount	Exposure amount-weighted average PD, %	Exposure amount-weighted average LGD, %	Risk weighted exposure amount	Average risk weighting, %
Risk class 1	61 629	0.03	16.38	3 518	5.71	66 761	0.03	20.30	4 522	6.78
Risk class 2	262 788	0.04	19.57	18 411	7.01	244 479	0.03	20.36	17 835	7.30
Risk class 3	355 306	0.13	25.35	61 994	17.45	332 819	0.07	25.63	43 186	12.98
Risk class 4	154 435	0.47	27.98	55 153	35.71	142 120	0.25	28.15	39 761	27.98
Risk class 5	56 658	1.55	30.36	34 892	61.58	57 419	0.81	30.03	28 987	50.48
Risk class 6	9 419	5.74	32.74	9 074	96.33	8 776	2.82	32.45	6 697	76.31
Risk class 7	4 976	18.82	32.31	6 890	138.45	5 960	8.97	34.45	6 608	110.89
Risk class 8	3 745	32.66	37.29	7 617	203.40	3 284	15.70	37.16	5 874	178.87
Risk class 9	2 209	45.00	38.12	4 287	194.01	728	32.69	39.00	1 388	190.74
Defaults	5 734	100.00	40.54	8 110	25.07	5 683	100.00	41.76	7 234	127.33
Total	**916 899**			**209 946**		**868 029**			**162 092**	

Table TB20 Retail exposures, of which property loans with own estimates of LGD and CCF, broken down by risk class

Retail exposures, of which property loans with own estimates of LGD and CCF, broken down by risk class

	2017					2016				
SEK m	Exposure amount	Exposure amount-weighted average PD, %	Exposure amount-weighted average LGD, %	Risk weighted exposure amount	Average risk weighting, %	Exposure amount	Exposure amount-weighted average PD, %	Exposure amount-weighted average LGD, %	Risk weighted exposure amount	Average risk weighting, %
Risk class 1	269 952	0.04	13.45	5 046	1.87	247 075	0.04	13.18	4 577	1.85
Risk class 2	334 521	0.07	16.39	11 690	3.49	318 191	0.07	15.96	10 852	3.41
Risk class 3	205 507	0.14	17.48	12 362	6.02	197 734	0.14	17.03	11 395	5.76
Risk class 4	80 139	0.37	18.36	9 716	12.12	78 248	0.37	18.61	9 700	12.40
Risk class 5	23 871	0.71	20.14	4 816	20.18	22 371	0.68	19.93	4 340	19.40
Risk class 6	4 619	1.43	18.39	864	18.71	4 528	1.41	17.81	802	17.72
Risk class 7	6 325	3.58	20.66	3 212	50.78	6 227	3.14	20.55	2 922	46.92
Risk class 8	1 525	3.91	20.17	657	43.07	1 399	3.36	20.24	570	40.72
Risk class 9	5 048	8.31	19.06	2 751	54.50	5 200	7.79	19.24	2 901	55.79
Defaults	913	100.00	21.10	1 685	184.41	930	100.00	21.95	1 825	196.04
Total	**932 420**			**52 799**		**881 903**			**49 884**	

Table TB21 Retail exposures, of which other with own estimates of LGD and CCF, broken down by risk class

Retail exposures, of which other with own estimates of LGD and CCF, broken down by risk class

	2017					2016				
SEK m	Exposure amount	Exposure amount-weighted average PD, %	Exposure amount-weighted average LGD, %	Risk weighted exposure amount	Average risk weighting, %	Exposure amount	Exposure amount-weighted average PD, %	Exposure amount-weighted average LGD, %	Risk weighted exposure amount	Average risk weighting, %
Risk class 1	24 843	0.11	36.96	2 312	9.30	24 613	0.10	34.66	2 062	8.37
Risk class 2	26 655	0.21	27.82	2 641	9.91	28 803	0.18	35.05	2 990	10.38
Risk class 3	10 551	0.46	31.59	2 023	19.18	10 947	0.41	29.87	1 834	16.75
Risk class 4	10 955	0.93	33.57	3 174	28.98	11 243	0.75	33.40	3 067	27.28
Risk class 5	14 899	1.52	29.31	4 394	29.49	17 951	1.17	41.02	6 338	35.31
Risk class 6	1 610	7.27	33.81	874	54.31	1 582	6.06	33.66	797	50.36
Risk class 7	2 139	10.05	33.69	1 227	57.38	2 327	7.91	45.24	1 641	70.51
Risk class 8	677	9.02	29.39	290	42.76	713	8.28	34.99	364	51.09
Risk class 9	500	19.89	35.12	356	71.31	621	18.03	35.94	435	70.06
Defaults	1 419	100.00	51.77	2 484	174.99	1 567	100.00	52.18	2 986	190.59
Total	**94 248**			**19 775**		**100 367**			**22 514**	

Exposure, exposure amounts and capital requirements

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 has decreased compared to the previous year. Previously, exposures to states, central banks, government agencies and municipalities were subject to the standardised approach but as of Q2 2017 they are subject to the Foundation IRB Approach, since in May, the Swedish Financial Supervisory Authority granted permission for Handelsbanken to apply the IRB Approach for sovereign exposures.

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 CR		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**

EU CR4 – Standardised approach – Credit risk exposure and CRM effects 2016

		a	b	c	d	e	f
		Exposures before CCF and CRM		Exposures post CCF and CR		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	228 703	13 118	249 391	3 225	10	0.00
2	Regional governments or local authorities	11 605	11 891	47 602	6 332	22	0.04
3	Public sector entities						
4	Multilateral development banks	483	0	483	0	0	0.00
5	International organisations						
6	Institutions	469	1 432	879	298	282	23.97
7	Corporates	11 212	8 033	9 058	1 020	9 983	99.05
8	Retail	17 974	12 061	13 585	3 282	12 612	74.78
9	Secured by mortgages on immovable property	86 396	7 369	86 399	5 688	33 316	36.18
10	Exposures in default	196	10	196	3	258	129.60
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	6 796	0	6 796	0	16 126	237.27
16	Other items	9 746	604	8 019	302	7 753	93.17
17	**Total**	**373 579**	**54 518**	**422 408**	**20 150**	**80 361**	**18.16**

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 at year-end 2017. Risk-weighted assets are calculated using the simple risk-weighted approach. Risk-weighted assets are in line with the previous year.

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**

EU CR10 – IRB (specialised lending and equities) 2016

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			290			
Other equity exposures	1 340	0	370	1 340	4 959	397
Total	**1 340**		**370**	**1 340**	**4 959**	**397**

COUNTERPARTY RISKS

Table TB24 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. Amounts are at year-end 2017. The risk exposure amount has decreased compared to the previous year.

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**

EU CCR1 – Analysis of CCR exposure by approach 2016	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	1 968 460	63 308	26 409			114 217	15 627
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	**1 968 460**	**63 308**	**26 409**			**114 217**	**15 627**

[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. Amounts are at year-end 2017. Risk-weighted assets have decreased compared to the previous year.

EU CCR2 – CVA capital charge 2017 SEK m		a Exposure value	b 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

EU CCR2 – CVA capital charge 2016 SEK m		a Exposure value	b 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	22 972	7 428
EU4	Based on the original exposure method	0	0
5	Total subject to the CVA capital charge	22 972	7 428

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 at year-end 2017 and broken down by exposure class and risk weight. The regulatory capital requirement has decreased compared to the previous year. 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.

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**

EU CCR3 – Standardised approach – CCR exposures by regulatory portfolio and risk 2016

		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	3 044						42			46			3 132	
2	Regional governments or local authorities	974												974	
3	Public sector entities														
4	Multilateral development banks	153												153	
5	International organisations	49												49	
6	Institutions		3 037											3 037	
7	Corporates		539								23			562	562
8	Retail									176				176	176
9	Institutions and corporates with a short-term credit assessment														
10	Other items										249			249	249
11	**Total**	**4 220**	**3 577**					**42**		**176**	**318**			**8 332**	**987**

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 at year-end 2017 and broken down by exposure class and obligor grade. The table further specifies average PD, average LGD and resulting risk weights. The total exposure has decreased compared to the previous year.

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	0.00%	46	18.26%	1.62	88	1.09%
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%**	**1.60**	**183**	**2.22%**
Institutional exposures	0.00 to <0.15	50 968	0.09%	68	15.57%	2.18	6 898	13.53%
Institutional exposures	0.15 to <0.25	805	0.21%	13	27.95%	0.91	315	39.06%
Institutional exposures	0.25 to <0.50							
Institutional exposures	0.50 to <0.75	4 091	0.51%	8	16.78%	2.14	1 484	36.28%
Institutional exposures	0.75 to <2.50	27	1.24%	2	0.00%	0.07	0	0.00%
Institutional exposures	2.50 to <10.00	0		3			0	
Institutional exposures	10.00 to <100.00							
Institutional exposures	100.00 (Default)							
Institutional 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%**

EU CCR4 – IRB Approach – CCR exposures by portfolio and PD scale 2016

		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
Institutional exposures	0.00 to <0.15	75 535	0.09%	67	14.32%	2.41	8 744	11.58%
Institutional exposures	0.15 to <0.25	3 221	0.21%	19	11.86%	0.43	510	15.84%
Institutional exposures	0.25 to <0.50							
Institutional exposures	0.50 to <0.75	6 335	0.51%	5	14.25%	2.23	1 952	30.82%
Institutional exposures	0.75 to <2.50	28	1.24%	5	23.15%	0.41	16	55.49%
Institutional exposures	2.50 to <10.00							
Institutional exposures	10.00 to <100.00							
Institutional exposures	100.00 (Default)							
Institutional exposures	**Sub-total**	**85 119**	**0.13%**	**96**	**14.23%**	**2.32**	**11 222**	**13.18%**
Corporate exposures	0.00 to <0.15	11 528	0.04%	751	41.45%	4.12	1 859	16.12%
Corporate exposures	0.15 to <0.25	9 945	0.20%	413	11.39%	1.22	1 083	10.89%
Corporate exposures	0.25 to <0.50	405	0.47%	162	45.00%	6.78	265	65.44%
Corporate exposures	0.50 to <0.75	91	0.64%	26	45.00%	3.72	53	58.52%
Corporate exposures	0.75 to <2.50	315	1.02%	112	45.00%	2.52	296	93.96%
Corporate exposures	2.50 to <10.00	292	3.03%	30	45.00%	5.96	347	118.80%
Corporate exposures	10.00 to <100.00	25	23.10%	8	45.00%	1.43	38	153.11%
Corporate exposures	100.00 (Default)	69	100.00%	4	45.00%	11.02	0	0.00%
Corporate exposures	**Sub-total**	**22 670**	**0.50%**	**1506**	**28.45%**	**2.91**	**3 941**	**17.38%**
Total (all portfolios)		**107 789**	**0.20%**	**1602**	**17.22%**	**2.44**	**15 163**	**14.07%**

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. Amounts are at year-end 2017. The total net exposure has decreased compared to the previous year.

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

EU CCR5-A – Impact of netting and collateral held on exposure values 2016		a	b	c	d	e
SEK m		Gross fair value	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
1	Derivatives	109 687	-47 697	61 990	-42 238	19 752
2	SFTs	22 880	0	22 880	-19 907	2 973
3	Cross-product netting	-	-	-	-	-
4	Total	132 567	-47 697	84 870	-62 145	22 725

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. Amounts are at year-end 2017.

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

EU CCR5-B – Composition of collateral for exposures to CCR 2016

	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		59 083	1 869	12 510	5 023	7 152

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. Amounts are at year-end 2017. Total fair value has decreased compared to the previous year.

EU CCR6 – Credit derivative exposures 2017	a	b	c
	Credit derivative hedges		
SEK m	Protection bought	Protection sold	Other credit derivatives
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*	

EU CCR6 – Credit derivative exposures 2016	a	b	c
	Credit derivative hedges		
SEK m	Protection bought	Protection sold	Other credit derivatives
Notionals			
Single-name credit default swaps	113	2 540	
Index credit default swaps	542	5 031	
Total return swaps			
Credit options			
Other credit derivatives	25	1 381	
Total notionals	**680**	**8 951**	
Fair values			
Positive fair value (asset)	*4*	*382*	
Negative fair value (liability)	*39*	*73*	

Table TB31 EU CCR8 – Exposures to CCPs
The table shows exposures to QCCPs. The total exposure has increased compared to the previous year.

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 constributions); 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 constributions); 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 2016		a	b
SEK m		EAD post CRM	RWAs
1	**Exposures to QCCPs (total)**	**3 796**	**78**
2	Exposures for trades at QCCPs (excluding initial margin and default fund constributions); of which	3 577	72
3	(i) OTC derivatives		
4	(ii) Exchange-traded derivatives		
5	(iii) SFTs		
6	(iv) Netting sets where cross-product netting has been approved		
7	Segregated initial margin	1	
8	Non-segregated initial margin	31	1
9	Prefunded default fund contributions	187	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 constributions); 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		

FUNDING AND LIQUIDITY RISK

Table TB32 Maturity analysis for financial assets and liabilities

For deposit volumes the column "Unspecified maturity" refers to deposits payable on demand. The table contains interest flows which means that the balance sheet rows are not reconcilable with the Group's balance sheet. Maturity tables without interest flows, including maturity tables in foreign currencies, can be found in the Fact Book at handelsbanken.se/ireng.

Maturity analysis for financial assets and liabilities 2017 SEK m	Up to 30 days	31 days–6 mths	6–12 mths	1–2 yrs	2–5 yrs	Over 5 yrs	Unspecified maturity	Total
Cash and balances with central banks	265 238	-	-	-	-	-	-	265 238
Interest-bearing securities eligible as collateral with central banks[1]	129 296	-	-	-	-	-	-	129 296
Bonds and other interest-bearing securities[2]	49 906	-	-	-	-	-	-	49 906
Loans to credit institutions	13 665	1 445	918	601	2 049	2 884	101	21 663
of which reverse repos	*1 340*	-	-	-	-	-	-	*1 340*
Loans to the public	56 263	249 434	183 229	192 418	409 251	1 048 010	-	2 138 605
of which reverse repos	*6 607*	-	-	-	-	-	-	*6 607*
Other	20 858	-	-	-	-	-	216 267	237 125
of which shares and participating interests	*14 052*	-	-	-	-	-	-	*14 052*
of which claims on investment banking settlements	*6 806*	-	-	-	-	-	-	*6 806*
Total assets	**535 226**	**250 879**	**184 147**	**193 019**	**411 300**	**1 050 894**	**216 368**	**2 841 833**
Due to credit institutions	90 432	48 763	3 661	4 399	1 150	6 373	22 959	177 737
of which repos	*126*	-	-	-	-	-	-	*126*
of which deposits from central banks	*34 335*	*26 309*	*553*	-	-	-	*1 496*	*62 693*
Deposits and borrowing from the public	9 411	29 483	4 928	767	2 374	5 665	889 651	942 279
of which repos	*0*	-	-	-	-	-	-	*0*
Issued securities[3]	62 324	370 578	194 043	205 022	439 494	58 788	-	1 330 249
of which covered bonds	*4 584*	*97 275*	*86 808*	*126 429*	*289 426*	*53 842*	-	*658 364*
of which certificates and other securities with original maturity of less than one year	*55 690*	*241 017*	*66 379*	-	-	-	-	*363 086*
of which senior bonds and other securities with original maturity of more than one year	*2 050*	*32 286*	*40 856*	*78 593*	*150 068*	*4 946*	-	*308 799*
Subordinated liabilities	392	781	25	21 316	13 984	-	-	36 498
Other	8 674	-	-	-	-	-	332 038	340 712
of which short positions	*2 085*	-	-	-	-	-	-	*2 085*
of which liabilities on investment banking settlements	*6 589*	-	-	-	-	-	-	*6 589*
Total liabilities	**171 233**	**449 605**	**202 657**	**231 504**	**457 002**	**70 826**	**1 244 648**	**2 827 475**
Off-balance-sheet items								
Financial guarantees and unutilised committed loan offers	443 383							

Derivatives 2017 SEK m	Up to 30 days	31 days–6 mths	6–12 mths	1–2 yrs	2–5 yrs	Over 5 yrs	Total
Total derivatives inflow	271 825	391 212	65 514	123 510	254 782	57 424	1 164 267
Total derivatives outflow	270 128	380 734	63 543	111 732	243 383	56 443	1 125 963
Net	**1 697**	**10 478**	**1 971**	**11 778**	**11 399**	**981**	**38 304**

Maturity analysis for financial assets and liabilities 2016 SEK m	Up to 30 days	31 days–6 mths	6–12 mths	1–2 yrs	2–5 yrs	Over 5 yrs	Unspecified maturity	Total
Cash and balances with central banks	222 401	-	-	-	-	-	-	222 401
Interest-bearing securities eligible as collateral with central banks[1]	97 464	-	-	-	-	-	-	97 464
Bonds and other interest-bearing securities[2]	64 344	-	-	-	-	-	-	64 344
Loans to credit institutions	24 274	2 465	432	151	1 109	3 637	-	32 068
of which reverse repos	*4 091*	-	-	-	-	-	-	*4 091*
Loans to the public	52 702	260 395	175 411	194 707	365 045	1 008 017	-	2 056 277
of which reverse repos	*7 493*	-	-	-	-	-	-	*7 493*
Other	22 769	-	-	-	-	-	223 839	246 608
of which shares and participating interests	*20 412*	-	-	-	-	-	-	*20 412*
of which claims on investment banking settlements	*2 357*	-	-	-	-	-	-	*2 357*
Total assets	**483 954**	**262 860**	**175 843**	**194 858**	**366 154**	**1 011 654**	**223 839**	**2 719 162**
Due to credit institutions	97 589	49 128	4 275	4 729	589	6 744	18 944	181 998
of which repos	-	-	-	-	-	-	-	*0*
of which deposits from central banks	*29 818*	*35 413*	*1 561*	-	-	-	*1 868*	*68 660*
Deposits and borrowing from the public	17 328	21 397	5 553	867	2 619	2 614	775 803	826 181
of which repos	*2*	-	-	-	-	-	-	*2*
Issued securities[3]	102 975	361 722	87 129	249 491	438 391	84 163	-	1 323 871
of which covered bonds	*87*	*105 475*	*17 241*	*205 687*	*267 098*	*48 094*	-	*643 682*
of which certificates and other securities with original maturity of less than one year	*101 745*	*222 244*	*25 435*	-	-	-	-	*349 424*
of which senior bonds and other securities with original maturity of more than one year	*1 143*	*34 003*	*44 453*	*43 804*	*171 293*	*36 069*	-	*330 765*
Subordinated liabilities	389	840	3 059	1 228	32 808	-	-	38 324
Other	4 105	-	-	-	-	-	320 193	324 298
of which short positions	*1 572*	-	-	-	-	-	-	*1 572*
of which liabilities on investment banking settlements	*2 533*	-	-	-	-	-	-	*2 533*
Total liabilities	**222 386**	**433 087**	**100 016**	**256 315**	**474 407**	**93 521**	**1 114 940**	**2 694 672**
Off-balance-sheet items								
Financial guarantees and unutilised committed loan offers	425 267							

Derivatives 2016 SEK m	Up to 30 days	31 days–6 mths	6–12 mths	1–2 yrs	2–5 yrs	Over 5 yrs	Total
Total derivatives inflow	259 217	447 077	75 052	103 839	292 940	95 384	1 273 509
Total derivatives outflow	257 865	437 574	71 189	90 801	264 335	92 441	1 214 205
Net	**1 352**	**9 503**	**3 863**	**13 038**	**28 605**	**2 943**	**59 304**

[1] SEK 89,070m (68,022) of the amount (excl. interest) has a residual maturity of less than one year.
[2] SEK 15,402m (10,136) of the amount (excl. interest) has a residual maturity of less than one year.
[3] SEK 606,772m (528,907) of the amount (excl. interest) has a residual maturity of less than one year.

Table TB33 EU LIQ1 – LCR disclosure template
The following table shows weighted and unweighted components and levels for the liquidity coverage ratio (CRR) 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 SEK m		Total unweighted value (average)				Total weighted value (average)			
	Quarter ending on	31 Dec 17	30 Sep 17	30 Jun 17	31 Mar 17	31Dec 17	30 Sep 17	30 Jun 17	31 Mar 17
	Number of data points used in the calculation of averages	12	12	10	7	12	12	10	7
	HIGH-QUALITY LIQUID ASSETS								
1	Total high-quality liquid assets (HQLA)					615 240	572 553	533 511	488 097
	CASH – OUTFLOWS								
2	Retail deposits and deposits from small business customers, of which:	566 268	541 687	529 403	516 597	50 956	49 606	48 606	47 960
3	*Stable deposits*	*260 657*	*256 404*	*253 006*	*250 174*	*13 033*	*12 820*	*12 650*	*12 509*
4	*Less stable deposits*	*305 610*	*285 283*	*276 397*	*266 422*	*37 924*	*36 786*	*35 956*	*35 451*
5	Unsecured wholesale funding	635 647	626 541	614 374	585 365	382 539	381 064	378 509	354 254
6	*Operational deposits (all counterparties) and deposits in networks of cooperative banks*	*203 968*	*199 774*	*194 981*	*193 192*	*49 695*	*48 580*	*47 356*	*46 876*
7	*Non-operational deposits (all counterparties)*	*346 844*	*339 678*	*330 534*	*307 477*	*248 009*	*245 396*	*242 295*	*222 682*
8	*Unsecured debt*	*84 835*	*87 089*	*88 858*	*84 696*	*84 835*	*87 089*	*88 858*	*84 696*
9	Secured wholesale funding					9 044	9 735	10 423	11 223
10	Additional requirements	273 389	283 434	291 131	301 874	34 438	34 398	34 067	34 463
11	*Outflows related to derivative exposures and other collateral requirements*	*7 060*	*6 959*	*6 570*	*7 098*	*7 060*	*6 959*	*6 570*	*7 098*
12	*Outflows related to loss of funding on debt products*	-	-	-	-	-	-	-	-
13	*Credit and liquidity facilities*	*266 329*	*276 475*	*284 561*	*294 776*	*27 377*	*27 439*	*27 497*	*27 366*
14	Other contractual funding obligations	1 559	1 426	1 680	484	1 559	1 426	1 680	484
15	Other contingent funding obligations	246 670	235 967	224 125	210 126	3 161	4 278	4 714	4 936
16	TOTAL CASH OUTFLOWS	-	-	-	-	**481 697**	**480 508**	**478 001**	**453 320**
	CASH – INFLOWS								
17	Secured lending (e.g. reverse repos)	42 033	46 262	48 816	49 564	21 576	24 993	27 261	26 286
18	Inflows from fully performing exposures	60 963	100 603	130 361	155 979	37 779	76 894	105 479	131 027
19	Other cash inflows	8 401	7 052	7 788	9 262	8 401	7 052	7 788	9 262
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**	**111 397**	**153 917**	**186 964**	**214 806**	**67 756**	**108 938**	**140 528**	**166 576**
EU-20a	***Fully exempt inflows***	-	-	-	-	-	-	-	-
EU-20b	***Inflows subject to 90% cap***	-	-	-	-	-	-	-	-
EU-20c	***Inflows subject to 75% cap***	***99 201***	***140 335***	***173 233***	***199 825***	***67 756***	***108 938***	***140 528***	***166 576***
21	**LIQUIDITY BUFFER**					**615 240**	**572 553**	**533 511**	**488 097**
22	**TOTAL NET CASH OUTFLOWS**					**481 697**	**480 508**	**337 473**	**286 744**
23	**LIQUIDITY COVERAGE RATIO (%)**					**149%**	**160%**	**165%**	**176%**

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 2017	Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of unencumbered assets	Fair value of unencumbered assets
SEK m	010	040	060	090
010 Assets of the reporting institution	**688 656**		**2 130 954**	
030 Equity instruments	6 968		17 087	
040 Debt securities	9 029	9 028	158 762	158 762
050 of which: covered bonds	878	878	39 469	39 469
060 of which: asset-backed securities	0	0	0	0
070 of which: issued by general governments	6 946	6 946	31 097	31 097
080 of which: issued by financial corporations	902	902	51 589	51 589
090 of which: issued by non-financial corporations	0	0	1 281	1 281
120 Other assets	672 575		1 958 439	

Table TB35 Collateral received
The following table shows collateral received. The information is presented as quarterly medians over the previous 12 months.

Collateral received 2017		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
SEK m	010	040
130 Collateral received by the reporting institution	**9 277**	**18 167**
140 Loans on demand	0	0
150 Equity instruments	4 431	2 815
160 Debt securities	3 917	14 803
170 of which: covered bonds	884	8 563
180 of which: asset-backed securities	0	0
190 of which: issued by general governments	3 407	4 266
200 of which: issued by financial corporations	884	11 005
210 of which: issued by non-financial corporations	0	0
220 Loans and advances other than loans on demand	0	0
230 Other collateral received	0	0
240 Own debt securities issued other than own covered bonds or asset-backed securities	**0**	**0**
241 Own covered bonds and asset-backed securities issued and not yet pledged		**0**
250 Total assets, collateral received and own debt securities issued	**698 502**	

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 2017	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	**629 112**	**684 283**

OWN FUNDS AND CAPITAL REQUIREMENT

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 9,794m
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 payment date after first redemption date
Coupons/dividends			
Fixed or floating dividend/coupon	Floating	Fixed	Fixed
Coupon rate and any related index	0.18%	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
Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	XS1014674227	XS1717456914	XS1717459694
Governing law(s) of the instrument	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
Post-transitional CRR rules	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
Instrument type (types to be specified by each jurisdiction)	Subordinated loan	Subordinated loan	Subordinated loan
Amount recognised in regulatory capital (currency in million, at most recent reporting date)	SEK 14,751m	SEK 1,297m	SEK 1,697m
Nominal amount of instrument	EUR 1,500m	SEK 1,300m	SEK 1,700m
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	15 Jan 2014	15 Nov 2017	15 Nov 2017
Perpetual or dated	Dated	Dated	Dated
Original maturity date	15 Jan 2024	15 Nov 2027	15 Nov 2027
Issuer call subject to the previous supervisory approval	Yes	Yes	Yes
Optional call date, contingent call dates and redemption amount	15 Jan 2019, Tax/Regulatory call, 100% of nominal amount	15 Nov 2022, Tax/Regulatory call, 100% of nominal amount	15 Nov 2022, 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
Coupons/dividends			
Fixed or floating dividend/coupon	Fixed	Fixed	Floating
Coupon rate and any related index	2.66%	1.41%	0.44%
Existence of a dividend stopper	No	No	No
Fully discretionary, partially discretionary or mandatory(in terms of timing)	Mandatory	Mandatory	Mandatory
Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
Existence of step-up or other incentive to redeem	No	No	No
Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
If convertible, conversion trigger(s)	N/A	N/A	N/A
If convertible, full or partial	N/A	N/A	N/A
If convertible, conversion rate	N/A	N/A	N/A
If convertible, mandatory or optional conversion	N/A	N/A	N/A
If convertible, specify instrument type convertible into	N/A	N/A	N/A
If convertible, specify issuer of instrument it converts into	N/A	N/A	N/A
Write-down features	No	No	No
If write-down, write-down trigger(s)	N/A	N/A	N/A
If write-down, full or partial	N/A	N/A	N/A
If write-down, permanent or temporary	N/A	N/A	N/A
If temporary write-down, description of write-up mechanism	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
Non-compliant transitioned features	No	No	No
If yes, specify non-compliant features	N/A	N/A	N/A

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
Kredit-Inkasso AB	100	556069-3185	Stockholm
Handelsbanken Rahoitus Oy	100	0112308-8	Helsinki
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
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
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
Lokalbolig A/S	60	78488018	Hillerød
Rådstuplass 4 AS	100	910508423	Bergen
SIL (Nominees) Limited (inactive)	100	1932320	London
Svenska Property Nominees Limited (inactive)	100	2308524	London
Lila stugan i Stockholm AB (inactive)	100	556993-9084	Stockholm
Ecster AB	100	556993-2311	Stockholm
Blå stugan i Stockholm (inactive)	100	556993-9357	Stockholm
Subsidary of Handelsbanken Liv Försäkrings AB			
Handelsbanken Fastigheter AB	100	556873-0021	Stockholm
ASSOCIATES			
Bankomatcentralen AB	20	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
UC AB	24.48	556137-5113	Stockholm
UC Affärsfakta AB[2]	100	556613-0042	Stockholm
UC Marknadsinformation AB[2]	100	556948-5518	Stockholm
UC Bostadsvärdering AB[2]	100	556576-7133	Stockholm
UC allabolag AB[2]	100	556730-7367	Stockholm
Bankomat AB	20	556817-9716	Stockholm
Getswish AB	20	556913-7382	Stockholm

[1] Credit institution.
[2] Ownership in subsidiaries and associates.

Companies not included in consolidated situation	Ownership share, %	Corporate identity number	Domicile
Handelsbanken Liv Försäkrings 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

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	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 table 55.

[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 on page 118. 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 G48.

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 2017, and the comparative figures as at 31 December 2016 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.

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 FEBRUARY 2018

Anders Bouvin
President and Group Chief Executive

Rolf Marquardt
CFO

Maria Hedin
CRO

List of tables and figures

FINANCIAL INFORMATION

The following reports can be downloaded or ordered from handelsbanken.se/ireng:

- annual reports
- interim reports
- risk reports
- corporate governance reports
- fact books
- sustainability reports.

FINANCIAL CALENDAR 2018

7 February	Annual accounts 2017
21 March	Annual General Meeting
25 April	Interim report January–March 2018
18 July	Interim report January–June 2018
24 October	Interim report January–September 2018

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