Risk and capital management
– information according to Pillar 3
2012

Handelsbanken

This is Handelsbanken

Handelsbanken is a full-service bank for both private and corporate customers with a nationwide branch network in Sweden, the UK, Denmark, Finland and Norway. In January 2013, Handelsbanken started a regional bank in the Netherlands. The Bank regards these countries as its home markets. Handelsbanken was founded in 1871 and has operations in 24 countries.

The purpose of this publication is to provide information about risks, risk management and capital adequacy as described in Pillar 3 of the capital adequacy regulations (Basel II).

Contents

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

This report is also available in Swedish.

READ MORE ON OUR WEBSITE
More information about risk and capital management at Handelsbanken is available at www.handelsbanken.se/ireng. This includes information concerning Pillar 3 since 2007.

Introduction

The purpose of this publication is to provide information about risks, risk management and capital adequacy as described in Pillar 3 of the capital adequacy regulations (Basel II). The disclosure requirements are specified in the Swedish Financial Supervisory Authority's directives (FFFS 2007:5). Complete information is published every year in the form of this document. For periodic information, see the relevant interim report.

SCOPE

This publication contains a detailed description of risks that exist at the Bank, risk management and capital requirements. The information is presented as at 31 December 2012, unless specified otherwise.

The disclosure requirements in Pillar 3 include a description of the Bank's capital requirement for credit, market 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 in addition to those in Pillar 1.

Svenska Handelsbanken AB (publ)[1] is the parent company in the Handelsbanken Group. In the context of capital adequacy, it is the banking group that is subject to capital requirements and not the entire Group. Thus, information in this publication is principally provided for the banking group. If the information refers to the Group, this is specifically stated. Handelsbanken is also covered by the rules applying to financial conglomerates. The conglomerate rules mean that the capital requirement for the banking group and the capital requirement for the insurance operations are combined. The conglomerate is not covered by the Pillar 3 rules.

For capital adequacy purposes all companies are fully consolidated; in the group accounts, associated companies are consolidated using the equity method. The Group's Annual Report provides information about which subsidiaries exist. Companies that are part of the banking group and thus covered by the capital adequacy requirements according to the capital adequacy regulations are listed on page 59.

In 2007, Handelsbanken received initial permission from the Swedish Financial Supervisory Authority to report parts of the portfolio according to the IRB foundation approach. In 2010, Handelsbanken also received permission from the Swedish Financial Supervisory Authority to report parts of the corporate portfolio using the advanced IRB approach whereby the Bank uses its own estimates for the LGD (Loss Given Default) and CF (Conversion Factor) risk parameters. In 2012, a supplementary application was submitted to the Swedish Financial Supervisory Authority for Large corporates. At the end of 2012, Handelsbanken had calculated the capital requirement using the IRB approach for about 89 (90) per cent of total risk-weighted assets, according to the Basel II rules. Some 61 (58) per cent of the corporate exposures, reported according to the IRB approach, were reported using the advanced approach.

Since 2008, Handelsbanken's goal is that available financial resources (AFR) must be at least 120 per cent of economic capital (EC) and that the tier 1 capital ratio according to Basel II in the long term should be in the 9–11 per cent interval. In view of the anticipated new rules concerning increased capital requirements (see below), the Bank has opted to increase its capitalisation above the target interval. At the end of 2012, the tier 1 capital ratio according to Basel II was 21.0 per cent (18.4). Adjusted capital targets can be decided when the new regulations have been established.

TRENDS DURING 2012

The year was subject to debt problems, particularly in the eurozone, financial markets which were very stressed at times, and a slowdown of the global business cycle. Handelsbanken's credit risk, measured as the average risk weight in approved IRB exposures, continued to fall during the year. The lower risk weight for corporate exposures is due to new business having been with counterparties in better risk classes and better collateral than the average of the Bank's existing credit portfolio. This mainly applies to exposures which are calculated using the IRB advanced approach.

Handelsbanken's exposure to market risk is also low. Essentially, market risks in the banking operations are only taken as part of meeting customers' investment and risk management needs. During the past few years, the Bank has worked actively to reduce the market risks in its balance sheet. One result of this is that a much smaller part of the earnings come from net gains/losses on financial items at fair value. Handelsbanken has a strong liquidity situation. The total liquidity reserve provides a high degree of resistance to possible disruptions in the financial markets. At the year-end, the Bank's liquidity reserve exceeded SEK 750 billion.

FUTURE CAPITAL REQUIREMENTS

Against the background of the financial problems arising due to the financial crisis of recent years, an international process has been started to reform the regulations applying to banking operations. Changed regulations have been decided by the Basel Committee within the framework of the Basel III accord. The framework aims to strengthen the resilience of individual banks and to help prevent the build-up of potential systemic risks in the banking system. Amongst the changes proposed in the rules are higher minimum capital requirements, and a stricter approach to the capital which can be used for capital adequacy and for the calculation of a bank's risk-weighted assets. In addition to the minimum capital adequacy requirements, buffer requirements are being introduced. Alongside the risk-based measures, a mainly non-risk-based measure of financial strength is also being proposed, called a leverage ratio (LR). Also in the area of liquidity, a number of new regulations are being proposed to strengthen financial stability.

CRDIV/CRR

The European Commission presented its official proposal for new regulations in July 2011 (CRDIV/CRR), which is based on the Basel III accord. New stricter minimum capitalisation requirements are being introduced for the components in the capital base with the highest quality – core tier 1 capital and tier 1 capital. In addition to the minimum capital requirements, a capital conservation buffer is being introduced. This is built up during good times to prevent banks from breaching capital requirements during difficult periods. There are also requirements for a countercyclical buffer. This requirement will vary over a business cycle in order to counteract excessive credit growth. To avoid restrictions on dividends, for example, these buffers must be covered by capital.

The new regulations are expected to be implemented during 2013 or 2014 and it is proposed that they are gradually phased in at different times over the next few years to ensure a smoother adaptation to the new rules. According to the proposals, all the requirements are expected to be fully implemented in 2019. The proposals are now under negotiation at EU level between the European Commission, the member states and the European Parliament. Thus, it cannot be ruled out that the negotiations will result in changes to the present proposals.

STRICTER REQUIREMENTS IN SWEDEN

In late 2011, the Swedish government, the

[1] Corporate identity no.: 502007-7862

Swedish Financial Supervisory Authority and the Riksbank (the Swedish central bank) published their views about how the new framework should be implemented in Sweden. The starting point is that Swedish banks need stricter minimum capital requirements and that the regulations should be implemented more rapidly. The minimum requirement for core tier 1 capital may therefore, in addition to the proposed EU minimum level, also include a special new requirement for the largest banks. It is expected that the stricter capital requirements will be implemented in two stages – during 2013 and during 2015. Sweden also plans to apply a shorter implementation period than proposed by the EU.

In addition to higher capital requirements, as with the EU proposal, additional requirements may be made in the form of a discretionary countercyclical buffer.

HIGHER RISK WEIGHTINGS ON SWEDISH MORTGAGE LOANS

In addition to the proposed changes in capital requirements, the Swedish Financial Supervisory Authority has proposed that an average risk weight floor of 15 per cent is introduced for Swedish mortgage loans. This would be part of the overall capital assessment in the framework of the Authority's supervision under Pillar 2.

The proposal means that banks must have a buffer capital for Swedish mortgage loans corresponding to the difference between the risk weight in Pillar 1 and the risk weight floor in Pillar 2. The risk weights in Pillar 1 will not be changed which means that the risk weight floor will not affect the capitalisation level for the minimum requirements in Pillar 1.

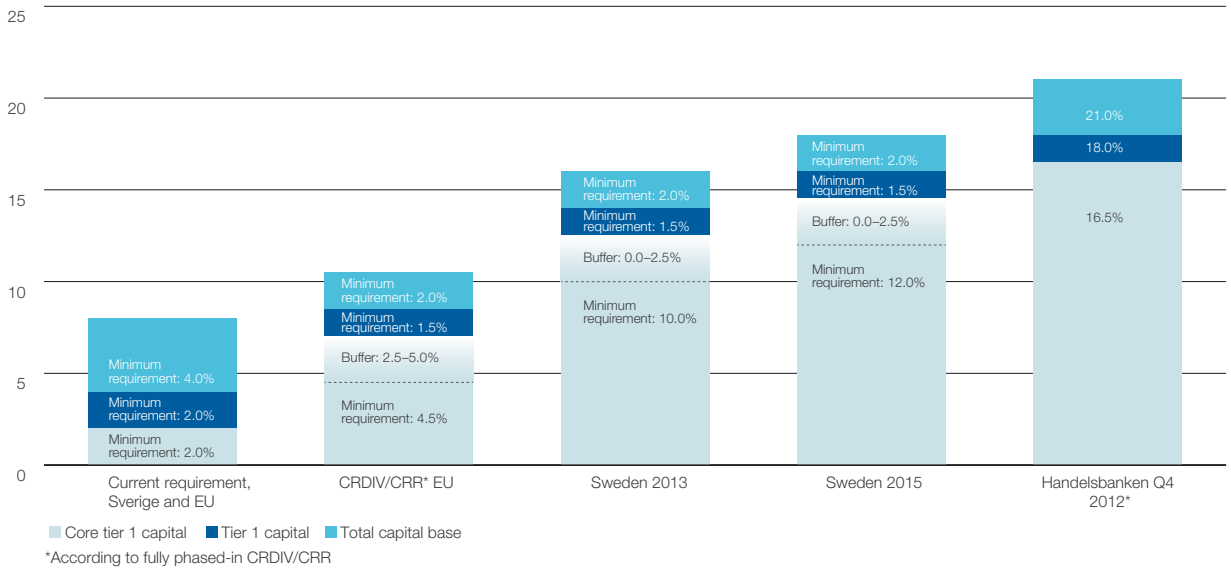
It is important to point out that the Swedish Financial Supervisory Authority does not criticise the banks' existing IRB models. The IRB models reflect the banks' historical losses on mortgage loans and imply a correct calculation of the capital requirement under Pillar 1. The extra capital requirement margin which the Swedish Financial Supervisory Authority now plans to implement will instead address risks which may have arisen on the Swedish housing and mortgage loan market in recent years and which are therefore not fully reflected in the history on which the banks' IRB models are based. Since the introduction of Basel II in 2007, Handelsbanken has taken account of this in its internal capital adequacy assessment and has thus from the outset kept considerably more capital for these exposures than is formally required according to Pillar 1. This is because the Bank's capital assessment is based on calculations of economic capital and serious stress tests.

The current average risk weight for Handelsbanken's Swedish mortgage loans is some 5 per cent. The introduction of a risk weight floor of 15 per cent for these exposures as part of Pillar 2 would – based on volumes at 31 December 2012 – involve an additional capital margin of approximately SEK 5.5 billion according to the Swedish Financial Supervisory Authority's proposal. This is already covered by Handelsbanken's capital base. When – and if so, how – the Swedish Financial Supervisory Authority can introduce a risk weight floor and stricter capital requirements is the subject of ongoing negotiations at EU level.

NEW LIQUIDITY REGULATIONS

In the area of liquidity, a number of new regulations will be gradually introduced aiming to strengthen market financial stability. It is intended that Sweden will also implement these rules more rapidly than they are implemented internationally. The proposed Swedish regulations will apply from 2013 and contain a measurement of the Bank's liquidity in the form of a short-term liquidity buffer – Liquidity Coverage Ratio (LCR). This measure is based on the LCR measure proposed internationally but it contains some deviations.

Proposed new capital requirements for Swedish banks



*According to fully phased-in CRDIV/CRR

Risk management

As in recent years, 2012 was characterised by financial stress and debt problems in several EU countries, which has contributed to the start of a recession. This has happened at the same time as a number of countries must tackle major structural problems and large parts of the financial sector must review their business models. Handelsbanken's business model has stayed intact during a number of financial crises and recessions and has proved very resistant to external strains.

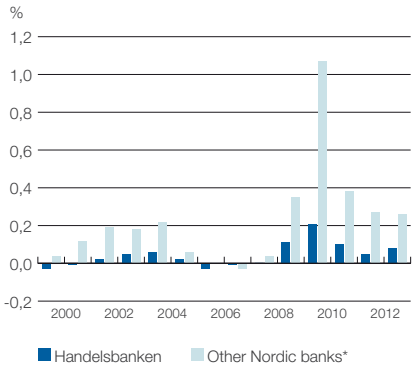
Once again, the financial markets were under substantial stress during the year. This stress is based on the inability of indebted countries to manage their structural imbalances at the same time as they and many other countries around the world need to handle the early stages of a recession. Traditional solutions to resolve an economic downturn tend to exacerbate the structural imbalances. These external conditions affect the financial sector and also Handelsbanken, which, however, always strives to have low exposure to macro-economic risks. In addition to this there is still uncertainty regarding future regulations. Handelsbanken has no direct exposure to the troubled countries and has very limited other exposures in these countries, but the stress on the financial markets also affects Handelsbanken's home markets.

Handelsbanken's historically low tolerance of risk, sound capitalisation and strong liquidity situation means that the Bank is well equipped to cope with substantially more difficult market conditions than those experienced during the year.

Handelsbanken's strict approach to risk means that the Bank deliberately avoids high-risk transactions, even if the remuneration may be high at that time. The 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. Lending has a strong local involvement, where the close customer relationship promotes low credit risks. Market risks in the banking operations are only taken as part of meeting customers' investment and risk management needs and in conjunction with the Bank's funding. The Bank's liquidity situation is planned so that business operations are not restricted when the financial markets are disrupted.

This strict approach to risk also enables the Bank to be a stable and long-term business partner for its customers. It contributes to good risk management and sustaining a high service level even when operations and the markets on

Loan losses as a percentage of lending 1999-2012



* For the period until 2000 inclusive, only Swedish banks are included.

Risks at Handelsbanken

	Description
Credit risk	Credit risk is the risk of the Bank facing economic loss because the Bank's counterparties cannot fulfil their contractual obligations.
Market risk	Market risks arise from changes in prices and volatilities in the financial markets. Market risks are divided into interest rate risks, equity price risks, exchange rate risks and commodity price risks.
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, people and systems, or external events. The definition includes legal risk.
Insurance risk	The risk in the outcome of an insurance that depends on the insured party's longevity or health.
Property risk	The risk of changes in prices of the Bank's property holdings.
Business risk	The risk of unexpected changes in earnings that are not attributable to the risk categories described above.
Compensation risk	Compensation risk is the risk of loss or other damage arising due to the compensation system.

Exposure to sovereign states with weak finances 31 December 2012, EAD, SEK m

Exposure class	Greece	Ireland	Italy	Portugal	Spain
Sovereign	-	-	-	-	0
Institutions*	16	20	302	17	91
Corporate		8	202		259
Retail	29	25	45	20	202
Total exposure	**45**	**53**	**549**	**37**	**552**
Provisions (all exposure classes)	-	-	-	-	-
*of which: EBA guarantees (Euro Banking Association clearing system)	15	10	30	15	35

Exposure to sovereign states with weak finances 31 December 2011, EAD, SEK m

Exposure class	Greece	Ireland	Italy	Portugal	Spain
Sovereign	-	-	-	-	-
Institutions*	27	45	267	29	308
Corporate	-	5	201	1	278
Retail	6	21	53	15	210
Total exposure	**33**	**71**	**522**	**46**	**796**
Provisions (all exposure classes)	-	-	-	-	-
*of which: EBA guarantees (Euro Banking Association clearing system)	27	18	54	27	134

which the Bank operates are subject to 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 future international expansion.

Throughout the financial crisis, Handelsbanken has had good access to liquidity. The Bank has access to the financial markets via its short-term and long-term funding programmes. The long-term funding programmes have been expanded in recent years and this process continued during the year. Handelsbanken has issued a large number of senior and covered bonds in several currencies. It was the first Swedish bank to issue covered bonds in Australian dollars. Handelsbanken is the first bank since 2007 to issue a seven-year covered bond in the American market. The investor base has been broadened and there has been large demand from investors. The fact that this was possible during an ongoing financial crisis shows the market's confidence in the Bank's business model and its ability to manage uncertain external conditions. Central Treasury's liquidity portfolio, which is part of the Bank's liquidity reserve, has a low risk profile and consists mainly of government bonds and covered bonds. The total liquidity reserve provides a high degree of resistance to possible disruptions in the financial markets. At the year-end, the Bank's liquidity reserve exceeded SEK 750 billion.

SEK 246 billion of the reserve consisted of liquid assets invested with central banks, SEK 114 billion were liquid securities and the remainder was mainly an 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 in a stressed scenario for more than two years without access to new market funding. The composition of the liquidity reserve guarantees maintained operations for a period exceeding the Swedish Financial Supervisory Authority's requirements according to the Liquidity Coverage Ratio (LCR) for all currencies in total and for US dollars and euros separately. Operations can also be maintained for a considerable period of time even in an extreme situation when the foreign exchange markets are closed.

The Bank's capital situation was strengthened during the year and its earnings have been stable. Coupled with low loan losses, this has contributed to the strong position. The low risk profile of the credit portfolio has resulted in lower capital requirements for credit risks compared with other banks. The strong capital situation provides good protection insurance in the fragile macro-economic situation. The strong capitalisation should be seen in light of future regulatory amendments regarding capital adequacy.

Handelsbanken is a universal bank, offering a wide range of various banking and insurance products. These entail a variety of risks that are systematically identified, measured and managed in all parts of the Group.

Handelsbanken's risk management

The Bank's total view of risk and capital management comprises the following components:

1. Business operations
The Bank is characterised by a clear division of responsibility where each part of the business operations bears full responsibility for its business and for risk management. Those with the greatest knowledge of the customer and market conditions are best equipped to assess the risk and can also act at an early stage in the event of problems. Each branch and each profit centre is responsible for dealing with any problems that arise. As a consequence, there are strong incentives for high risk awareness and for prudence in business operations.

2. Local risk control
The accountability of the person taking a business decision is supplemented by local risk control in the regional banks and within the various business areas. This ensures that risk-taking does not become excessive in an individual transaction or in local operations, and that transactions are in line with the Bank's views of risk-taking. The local risk control assesses risk, checks limits, etc. and verifies that individual business transactions are documented and conducted in a manner that does not involve undesirable risks. The local risk control reports to Central Risk Control and also to business operations management.

3. Central risk control
As business decisions become more decentralised, the need for central monitoring of the risk and capital situation increases. The central credit and risk functions are therefore a natural and vital component of the Bank's business model.

The Central Credit Department prepares decisions made by the Board or by the Board's credit committee. The Central Credit Department also ensures that credit assessments are consistent and that loans are granted in accordance with the credit policy decided by the board. The Central Credit Department is also responsible for identifying risks in all major individual commitments and offers support and advice to other areas of the credit organisation.

Central Risk Control has the task of identifying, measuring, analysing and reporting on 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 senior management has reliable information to use as a basis for managing risks in critical situations. Central Risk Control also has functional responsibility for local risk control in the business areas and subsidiaries, for ensuring that risks are measured effectively and consistently, and ensuring that the Bank's senior management receives regular reports and analyses of the current risk situation.

4. Capital planning
If – despite the work in the three components described – Handelsbanken were to suffer serious losses, it holds capital 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 calculation of economic capital and stress tests. Stress tests identify the measures that need to be prepared or implemented in the future to ensure satisfactory capitalisation at any given time.

Apart from the formal risk organisation, Central Treasury is responsible for ensuring that the Group at any given time has satisfactory liquidity and is well prepared to quickly strengthen liquidity as needed. Central Treasury is also responsible for the Bank's liquidity reserve. A liquidity report is issued daily to the CFO and regularly to the Bank's Group Chief Executive and Board.

In addition, operations are reviewed by compliance – at central, business area and subsidiary level – and the internal and external auditors.

Handelsbanken's risk management activities have stood the test of time and their effectiveness is illustrated by the fact that for a long time the Bank has had lower loan losses than its competitors and a stable financial performance.

Risk organisation

Handelsbanken's Board is responsible for assessing and monitoring the risks arising in the Group's operations. Central Risk Control – which reports to the CFO, the Group Chief Executive and the Board – has day-to-day responsibility for overall risk assessment.

Handelsbanken's Board is responsible for assessing and monitoring the risks arising in the Group's operations. The Board ratifies policy documents and instructions describing how various risks should be managed and reported. The Board also ratifies the decision structure for credit limits.

Central Risk Control – which reports to the CFO, the Group Chief Executive and the Board – has day-to-day responsibility for overall risk assessment. This responsibility entails ensuring that decision documentation regarding risk measurements and limits is prepared, and that fit-for-purpose information and reporting systems are in place. Central Risk Control is also responsible for identifying and controlling the Group's risks, for the models used to measure these risks, and for proposing risk reduction measures.

The Board determines the total market and liquidity risk limits for the entire Group within each type of risk. The limits are then allocated by the Group Chief Executive and the CFO. In each business area which has been allocated limits, a local risk control unit reports the risk exposure to Central Risk Control and also to the management of the business area.

The Group Chief Executive is responsible for the Bank pursuing capital planning which ensures that the Group's supply of capital is secure. The Head of Capital Management is responsible for measuring available capital and for applying the Group's capital planning policy. This includes responsibility for maintaining the correct level of available capital and the correct proportions of the various types of capital.

Central Treasury is responsible for group liquidity and funding, and for carrying out the risk management measures that are decided upon by the Bank's CFO.

REPORTING AND MONITORING OF RISK AND CAPITAL SITUATION

The credit risk situation is reported quarterly to the Board in terms of volume growth, risk-reported credits, information from the Bank's credit risk models, etc.

In addition to the reporting of loans with provision requirements, which is carried out within the framework of external accounting, defaulted credits are reported regularly, to satisfy the information requirement of the internal credit risk model and the calculation of the capital requirement. Each branch also compiles a quarterly risk report, where it reviews its credit commitments to identify and report credits 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. For each commitment where the risk is assessed to be higher than normal, a special action plan is established. Normally, problems are identified at an early stage and risk-limiting measures are taken before a commitment becomes non-performing. The risk reports are presented each quarter to the boards of the regional banks and subsidiaries and to the Board of the Bank.

The financial risks and limit utilisation for Handelsbanken Capital Markets, the internal bank, the mortgage business and other operations which carry less market risk, are checked on a daily basis and summarised when necessary and at least weekly. Every month, there is an in-depth follow-up of the market risk and liquidity risk situation presented to the Bank's risk committee chaired by the Bank's CFO. Any overdrawn limits are reported to this committee, as well as the current risk situation in the various risk classes and for the Group as a whole. Central Risk Control reports the risk committee's analyses and observations to the Group Chief Executive on a regular basis, and at least after each risk committee meeting. The risk situation and limit utilisation for market risks are reported to the Board at each ordinary board meeting.

The capital situation is reported weekly to the CFO and Head of Capital Management, based on a short-term capital forecast. In cases where certain thresholds are exceeded, or where, for any other reason, the Head of Capital Management or the CFO deems it appropriate, the matter is reported to the Group Chief Executive. The capital situation for the medium and long term is summarised quarterly by the capital committee. The forecast is fully updated quarterly, and when there are significant changes in market conditions. A report is made quarterly to the Group Chief Executive and Board of the Bank and otherwise when necessary.

The liquidity risk is reported daily to the Bank's management and to the Board at each ordinary board meeting. The liquidity committee, which acts as an advisory unit to the Head of Central Treasury, meets every month before each ordinary board meeting and otherwise when necessary. At this committee meeting, reports are presented on the current liquidity situation, on results of stress tests and a scenario analysis, and other information which is relevant for the assessment of the Group's liquidity situation.

Group Finance has a valuation committee with the task of creating conditions for correct valuation of recognised assets and liabilities. The valuation committee must ensure that internal guidelines, instructions and applied models in the valuation are fit for purpose and comply with external regulations.

Operational risks are reported to the Board every six months. The report includes information regarding significant events, major losses and important proactive measures. The report also includes an aggregated risk assessment at Group level. Operational risks are monitored daily via reports concerning incidents which have occurred from branches and units throughout the Handelsbanken Group. In addition, proactive measures relating to the operations-related risk control are monitored and followed up in close collaboration with Central Risk Control.

Credit risk

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

Credit risk is defined as the risk of the Bank facing economic loss as the result of the Bank's counterparties not being able to fulfil their contractual obligations.

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 aims to be a relationship bank where the branches maintain regular contact with the customer, which gives them an in-depth understanding of each individual customer and a continually updated picture of the customer's financial situation.

In the Bank's decentralised organisation, the branch responsible for the customer has total credit responsibility. Customer and credit responsibility lies with the branch manager or the employees at the local branch delegated by the manager. Most staff at branches have personal decision limits allowing them to decide on credits to the customers they are responsible for. If there is a need for larger credits, there are regional and central decision levels. Each additional level of decision adds credit expertise. They have the right to reject credits both within their own decision level and also credits which would have been decided at a higher level. The largest credits are decided by the Board's credit committee, or by the entire Board, where cases are prepared by the Central Credit Department. However, no credit application may be processed in the Bank without the recommendation of the branch manager.

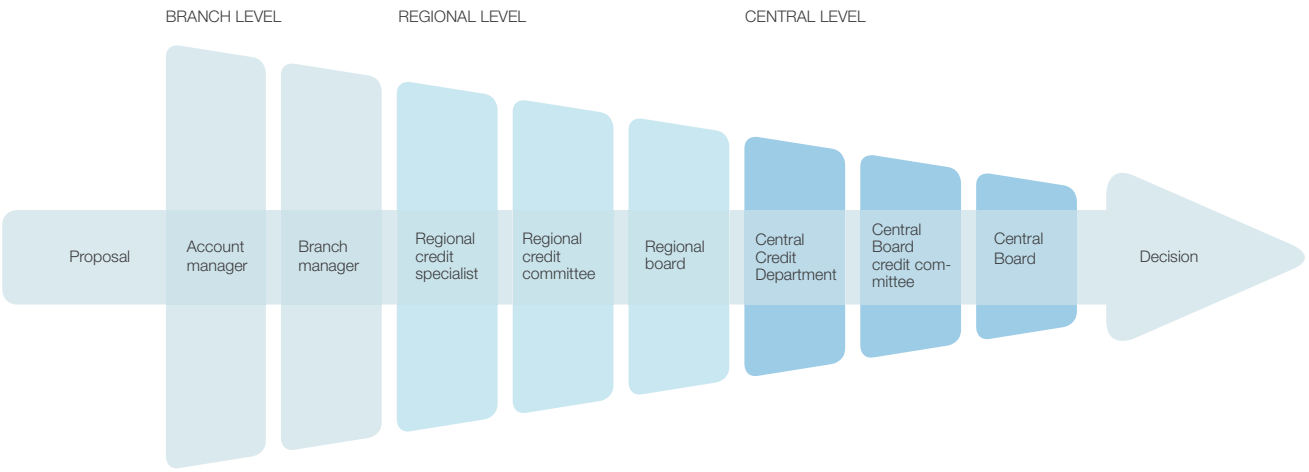
The decision procedure for credits is illustrated in the diagram below. It also shows the percentage of decisions and amounts at the various decision levels.

Decentralisation also means that 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 the repayment capacity, valuation of collateral, loans and credit terms. For borrowers whose total loans exceed SEK 3 million, the credit decision is made in the form of a credit limit (or SEK 6 million for residential mortgage loans for private individuals and SEK 12 million for loans to housing co-operative associations with a mortgage in the property).

Credit limits granted are valid for a maximum of one year. When extending limits, the decision documentation and decision procedure are the same as for a new credit.

In Handelsbanken's decentralised organisation where a large proportion of the credit and limit decisions are made by individual branches, it is important that there is a well-functioning review process to ensure that the credit decision is of 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

The credit process and decision levels in Handelsbanken



Distribution of limit decisions

Proportion of number of limits	70%	28%	2%
Proportion of limit amount	6%	21%	73%

complied with, that credit quality is maintained, and that credit decisions show that there is good credit judgement and a sound business approach. A corresponding examination of the quality is also made for credit decisions made at higher levels in the Bank. Credits granted by regional credit committees and regional bank boards are examined by the Central Credit Department, which also prepares and examines credits decided by the Bank's Central Board or its credit committee.

Rather than being a mass market bank, Handelsbanken is selective in its choice of customers. Borrowers must be of high quality. 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.

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 repayment difficulties and also bears any loan losses. If necessary, the branch obtains support from the regional head office and central departments. The Bank's method of working means that all employees whose work involves transactions linked to credit risk acquire a solid and well-founded approach to such risks. This approach forms an important part of the Bank's culture.

MEASUREMENT OF CREDIT RISKS

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 applied to the banking group led by Svenska Handelsbanken AB (publ) and the two companies Svenska Handelsbanken AB (publ) and Stadshypotek AB (publ). The Bank has since applied for and received equivalent permission for Handelsbanken Finans AB and Handelsbanken Rahoitus Oy. Certain exposures in the subsidiaries Handelsbanken S.A. in Luxembourg, ZAO Svenska Handelsbanken in Russia (in liquidation) and Handelsbanken Finans (Shanghai) Financial Leasing Co Ltd are reported according to the IRB approach.

The Swedish Financial Supervisory Authority has also granted time-limited and permanent exceptions from application of the IRB approach for certain exposures, for which the standardised approach will be used instead. The permitted permanent exception refers to exposures to sovereigns, the Riksbank (the Swedish central bank) and Swedish municipalities. Time-limited exceptions comprise portfolios of insignificant size as defined in the Financial Supervisory Authority's regulations as well as the equity exposures held by the Bank at the turn of the year 2007/2008. The portfolio in Handelsbanken Fonder AB is attributable to portfolios of insignificant size.

In 2012, reporting according to the IRB approach comprised the portfolios in the Swedish regional banks, Regional Bank Norway, Regional Bank Finland, Regional Bank Denmark, Handelsbanken Finans in Sweden and Finland, major parts of the regional banks in the UK, the Bank's exposures to other banks (institutional exposures) and large parts of the Handelsbanken International and Handelsbanken Capital Markets business areas.

In 2010, Handelsbanken received permission from the Swedish Financial Supervisory Authority to report certain portfolios using the advanced IRB approach. The permit refers to counterparties which are categorised as medium-sized companies, property companies and housing co-operative associations. In 2012, a supplementary application was submitted to the Supervisory Authority concerning Large corporates. The exposures that have been approved for reporting according to the IRB approach but not yet for the advanced approach, will be reported according to the foundation approach for the time being.

At the end of 2012, the Bank calculated the capital requirement using the IRB approach for about 89 (90) per cent of total risk-weighted assets, calculated according to the Basel II rules. 61 (58) per cent of the corporate exposures reported according to the IRB approach were reported using the advanced approach.

Calculation of credit risks broken down by method and business area, 2012

	Business area		
Approach	**Regional Banks in the Nordic countries***	**Regional Banks UK***	**Handelsbanken International*,**
Standardised Approach	Sovereign exposures "Insignificant portfolio" according to FI approval	Sovereign exposures "Insignificant portfolio" according to FI approval Retail exposures	Sovereign exposures "Insignificant portfolio" according to FI approval
Foundation IRB Approach	Corporate exposures/large corporates Corporate exposures Institutional exposures Exposures without a counterparty Equity exposures	Corporate exposures/large corporates Corporate exposures Institutional exposures Exposures without a counterparty Equity exposures	Corporate exposures/large corporates Institutional exposures Exposures without a counterparty Equity exposures Securitisation positions
Advanced IRB Approach	Corporate exposures (medium-sized companies, property companies, housing co-ops) Retail exposures	Corporate exposures (medium-sized companies, property companies, housing co-ops)	

* May include legal entities in addition to the parent company (Handelsbanken Stadshypotek, Handelsbanken Finans, Handelsbanken Capital Markets and others).

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 under the Basel II rules (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 it 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 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 15 different exposure classes, while there are 7 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 model comprises sovereign, institutional, corporate, retail and equity exposures, as well as positions in securitisations. In addition there are also exposures without counterparties – assets where no performance is required from a counterparty.

Some exposure classes contain sub-groups in which special models are applied. In practice, the division into exposure classes and sub-groups is made when the employee at a branch or unit responsible for the customer decides which business assessment 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. Exposures to institutions refer 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 companies that 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 subdivided into two groups: property credit 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 for 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". The Bank's corporate exposures to counterparties which are property companies, housing co-operative associations or medium-sized companies have been reported according to the advanced approach since 31 December 2010 inclusive, while other corporate exposures are reported according to the foundation approach for the time being.

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 2012, in accordance with the Swedish Financial Supervisory Authority's transitional rules, was calculated using to the standardised approach. However, these exposures are reported as IRB exposures. New equity exposures after this date have been calculated according to the IRB model.

For division into exposure classes according to the standardised approach, the Bank's volumes are put into the following exposure classes: sovereign and central banks, municipalities, institutions, retail, exposures with collateral in property, non-performing items and other items. 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. Other items include prepaid costs, holdings in equities, cash in hand and unminted gold.

RISK CLASSIFICATION METHODS

To quantify its credit risks, the Bank calculates the probability of default (PD), the Bank's exposure at default (EAD), and the proportion of the loan that the Bank would lose in the case of default (loss given default – LGD). Default is defined as when the counterparty is either 90 days late in making payment, or when an assessment has been made that the counterparty will not be able to pay as contractually agreed, for example, if declared bankrupt.

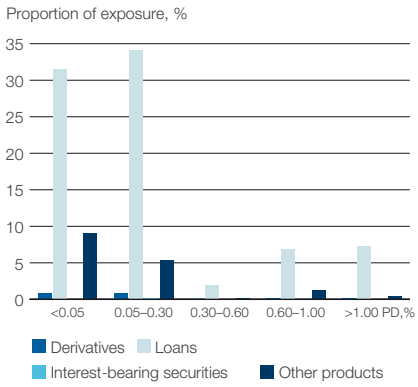
The PD value is expressed as a percentage where, for example, a PD value of 0.5 per cent means that one borrower of 200 with the same PD value is expected to default within one year. A credit in default does not necessarily mean that the Bank will incur a loss since in most cases there is collateral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

For corporate and institutional exposures, the internal rating set for each counterparty is directly converted into a risk class on a scale between 1 and 10 (where risk class 10 refers to defaulted counterparties). A certain average PD is calculated for each risk class. For exposures to large companies and institutional exposures, standardised values prescribed by the Swedish Financial Supervisory Authority's regulatory code are applied to the loss given default (LGD). The standardised value that may be used is determined by the collateral provided for each exposure.

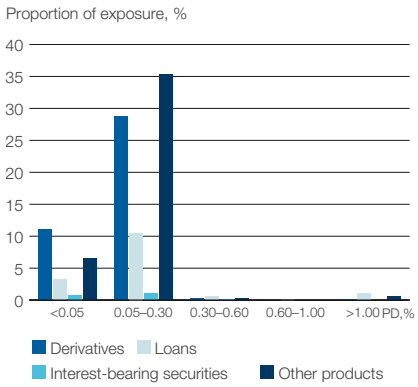
For retail exposures, the risk class is also based on the internal rating assigned to all credit customers. The rating is not translated directly into a risk grade as for corporate exposures; instead, the different exposures are sorted into a number of smaller groups on the basis of certain factors. Such factors include the type of credit, the counterparty's debt-servicing record and whether there are one or more borrowers. An average probability of default is calculated for each of the smaller groups, and on the basis of this, the groups are sorted into one of the ten risk classes. Different models are used for exposures to private individuals and to small companies respectively (that are also classed 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 loss given default (LGD) is determined by the Bank's own loss history. Different values are applied to retail exposures with collateral in property in

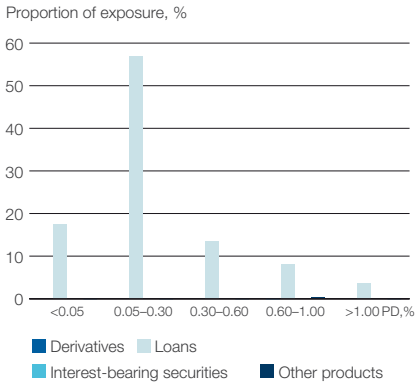
Proportion of exposure per product type per PD interval excluding defaulted credits – Corporate exposures



Proportion of exposure per product type per PD interval excluding defaulted credits – Institutional exposures



Proportion of exposure per product type per PD interval excluding defaulted credits – Retail exposures



Sweden, and for property exposures to medium-sized companies, property companies and housing co-operative associations depending on the loan-to-value ratio of the exposure. For other exposures, the LGD value is determined by factors that may depend on the existence and valuation of collateral, the product and similar factors.

For each class of exposure, the average probability of default (PD) is calculated for each of the nine risk classes that refer to non-defaulted counterparties or agreements. Probability of default is based on calculations of the historical percentage of defaults for different types of exposure. The average PD is then adjusted by a safety margin and a business cycle adjustment factor. The safety margin is intended to ensure that the probability of default is not underestimated. The business cycle adjustment factor takes into account the fact that the measured probability of default per risk class can be expected to vary due to the business cycle. The measured probability therefore needs to be adjusted in relation to where in the business cycle the Bank's borrowers were in the period on which the calculations are based in order to reflect a long-term probability of default which must be used for the risk weighting. The business cycle adjustments are based on the Bank's internal history from 1985 to 2012 and these become less pronounced the longer there is historical information available for calculating the historical average per risk class.

Handelsbanken's method for business cycle adjustment is intended to even out business cycle fluctuations in the PD at risk class level. The means that the PD per risk class will be less volatile over time and that the PD at counterparty and portfolio level varies in association with some counterparties being assigned a changed rating in the case of strong business cycle variations. However, Handelsbanken's internal rating of a counterparty is so long-term that the PD at counterparty and portfolio level is expected to be stable during a normal business cycle.

When calculating the LGD, the risk measure must reflect the loss proportion during economically unfavourable circumstances, known as a downturn LGD. For collateral in property, the downturn LGD is based on observed losses 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 advanced approach, the LGD is adjusted for downturns so that the Bank's observed losses in 1991–92 can be explained by the risk weights with a good margin.

When the exposure at default (EAD) is to be calculated, certain adjustments are made to the carried exposure. This applies predominantly to various types of commitments where exposure may increase without any active decision by the Bank. 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 conversion factor (CF) for the part of the credit that is unutilised. For certain product categories for corporate exposures and institutional exposures, the conversion factors are determined by the regulatory code, while for retail exposures and certain product categories for 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 other factors may also be of relevance.

In addition to the capital adequacy calculation, measures of risk (PD, EAD, LGD) are used to calculate the cost of capital in each individual transaction and to calculate economic capital (EC). New credits that are assessed to involve higher than normal risk are refused, regardless of the price and regardless of the collateral available. The method used means that the Bank's historical losses have a direct impact on risk calculations and capital requirements, which contributes to the positive outcome for the Bank of the Basel II regulations compared with Basel 1.

For corporate, institutional and retail exposures, the adjoining figures show how the exposure is distributed between bonds and other interest-bearing securities, and loans, derivatives and other products respectively. The diagrams show how the exposures (EAD), excluding credits in default, are distributed between different PD ranges in each counterparty category. Exposures within a certain range are shown in terms of the distribution between loans, interest-bearing securities, derivatives and other types of product. Other products are, for example, guarantees and committed loan offers. The PD values used are those applied for the statutory capital requirement. This means that margins in the form of business cycle adjustments and safety adjustments in the PD values are also included in the calculations of economic capital, which means that the loss levels that the PD values imply are conservative.

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 within which creditworthiness is assessed is not always the same for the Bank as it is for the 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 values change over time, depending on business cycle adjustment factors and developments in the model, for example.

In the table below, the 25th and 75th percentiles are shown in the distribution of internal risk categories based on the external credit rating. This reflects the interval of normal internal risk classes for the various external credit ratings.

Quality assurance of the credit risk model
The Bank carries out a detailed annual review of its internal rating model. 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 statistical models used measure risk satisfactorily (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 the rating reflects the risk in the counterparty, that 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 counterparty, 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 statistical models and risk measurements on which these are based 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, LGD and EAD. They are primarily assessed to ascertain whether the outcomes observed during the past year confirm that the models applied by the Bank function as intended. To achieve this, a number of statistical tests are used with pre-defined threshold values, so that if there are deficiencies in the models, clear signals are given. The validation may necessitate changes to models, risk measurements or instructions.

The results of the evaluations and validations are reported to the Bank's Board and audit committee and are examined by the Swedish Financial Supervisory Authority.

The table below shows the values applied (predictions) and the outcome for 2012 for the various dimensions of risk. The year's provisions for probable loan losses and actual losses for defaults in 2012 are also shown so that a comparison can be made between the losses the model implies and the actual losses the Bank has had for these exposures in 2012. The LGD outcome for 2012 refers to average (exposure-weighted) realised losses for retail agreements that defaulted in 2010 with a 24-month recovery period, and corporate counterparties (including large companies and institutions) that defaulted in 2011 with a 12-month recovery period. In both cases, provisions remaining at the end of the recovery period are included in the loss definition. The PD outcome states the proportion of healthy retail agreements and corporate counterparties at the start of 2012 that defaulted in 2012.

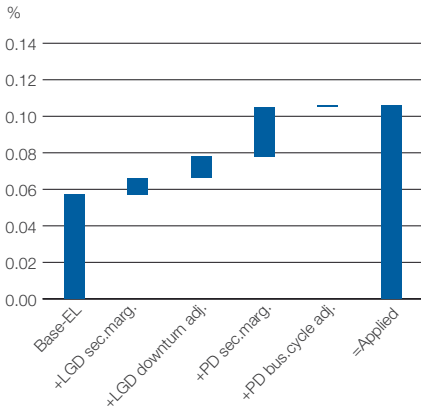
For the expected loss (EL), the total EL is shown for the exposures in approved IRB models as at 31 December 2011, broken down by exposure class. The EL for defaulted exposures is proportionally very high since their PD is 100 per cent. The table shows EL both including and excluding defaulted exposures. For PD and LGD, the average value of the IRB-approved exposures is shown, both for the value used in the models in 2012 and for the actual outcome in 2012. The average of EL and LGD is weighted according to the exposure volume, while PD is weighted according to number. The PD values shown here are those applied in the capital adequacy report, thus including both security margins and the business cycle adjustment factors.

The expected loss presented here does not in fact, despite its name, represent the most likely loss level for the Bank. One reason for this is that the PD values used according to the regulations are to correspond to a long-term average. 2012 was a year when defaults could have been expected to exceed the long-term average. Another reason is that a number of adjustments are made to the value calculated using the Bank's IRB model. The main aim of these adjustments is to ensure that the Bank's internal model does not underestimate the actual risk.

Relationship between external and internal rating for jointly rated customers, 2006–2012

	Corporate exposures, Large corporates		Institutional exposures	
External rating (Moody's)	Internal risk class 25th percentile	Internal risk class 75th percentile	Internal risk class 25th percentile	Internal risk class 75th percentile
Aaa	1	1	1	1
Aa	1	2	1	2
A	2	3	3	3
Baa	3	4	3	5
Ba	4	5	5	6
B	6	7	6	7
Caa-C	7	8	7	9

Breakdown of EL for all IRB-approved exposures excluding defaulted exposures



The adjoining diagram shows how these adjustments affect the calculated value for expected losses. Apart from these adjustments, the risk is further overestimated since the LGD and CF for large corporate exposures are determined by the regulations in the foundation approach and these are considerably more conservative than the expected value.

The adjoining diagram also shows the EL for all IRB-approved exposures, excluding defaulted exposures. The first column shows the observed EL value: EL based on the outright estimate of PD and LGD, which is approximately 0.06 per cent. Since parts of the corporate exposures have been calculated according to the advanced approach since 1 January 2011, EL will be lower than previously, since the risk estimates to a greater extent reflect the internal loss history. The next columns show how EL is affected when the security margins, business cycle adjustments and regulatory "floor" levels are introduced.

The purpose of the safety margin is to ensure that the value applied does not underestimate the true risk because the statistical data on which the models are based is not sufficiently comprehensive. The business cycle adjustment takes into account the fact that the estimated probability of default and the loss can be expected to vary due to the business cycle. The probability of default and loss proportion used for risk weighting therefore need to be adjusted in relation to where in the business cycle the Bank's borrowers were in the period on which the calculations are based. The final column shows the EL calculated using the approved IRB approach. It is approximately 0.11 per cent of the exposure.

The diagram excludes the capital requirement for defaulted credits. EL excluding defaulted exposures shows a more likely level for the Bank's losses than EL including defaulted exposures. This level is also considerably closer to the Bank's net loan loss ratio calculated for defaults in 2012, namely 0.05 per cent.

In addition to evaluations and validations, Internal Audit also comprises an important part of the process. It examines the risk rating system, its components and its application on a regular basis. The way the Bank calculates, rates and quantifies risks, and validates the models used for the calculations, has also been an important part of the Swedish Financial Supervisory Authority's review in conjunction with approval of the Bank's application of the IRB approach. The Swedish Financial Supervisory Authority's supervision of the Bank includes regular monitoring of how the Bank's application of the IRB approach is progressing. Within the framework of its overall capital assessment, the Swedish Financial Supervisory Authority confirmed the application of the IRB approach as the starting point.

	EL			PD		LGD	
Predictions and outcome for risk parameters in the IRB model, 2012 %	**Excluding defaults**	**Including defaults**	**Loan losses and provisions for defaults 2012 (proportion of total EAD)[2]**	**Prediction for 2012**	**Outcome 2012**	**Prediction for 2012**	**Outcome 2012**
Exposure class							
Corporate[1]	0.13	0.45	0.08	0.77	0.84	33	12
Retail, property	0.04	0.07	0.01	0.31	0.37	13	2
Retail, other	0.32	1.10	0.11	1.22	1.39	28	16
Institutions	0.02	0.02		0.88	0.00	21	0
Total, all	0.11	0.33	0.05				

	EL			PD		LGD	
Predictions and outcome for risk parameters in the IRB model, 2011 %	**Excluding defaults**	**Including defaults**	**Loan losses and provisions for defaults 2011 (proportion of total EAD)[2]**	**Prediction for 2011**	**Outcome 2011**	**Prediction for 2011**	**Outcome 2011**
Exposure class							
Corporate[1]	0.17	1.48	0.07	0.88	0.87	34	20
Retail, property	0.04	0.06	0.01	0.24	0.34	13	3
Retail, other	0.36	0.98	0.10	1.31	1.48	27	17
Institutions	0.03	0.21	0.00	0.87	0.00	27	0
Total, all	0.15	0.90	0.05				

[1] Predictions reflect IRB-A for medium-sized companies, property companies and housing co-operative associations.
[2] Handelsbanken Finans excluded.

COLLATERAL

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 compensated for by being offered good collateral. 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.

Unsecured credit is mainly granted to customers with very good repayment capacity. In these cases, special loan conditions are generally drawn up that entitle the Bank to renegotiate or terminate the agreement if the borrower's repayment capacity deteriorates or if the conditions are otherwise violated.

Since collateral is not generally utilised until a borrower faces serious repayment difficulties, the valuation of collateral focuses on the expected value of the collateral in the case of a rapid 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.

A large part of lending to credit institutions consists of reverse repos. A reverse repo is a repurchase transaction in which the Bank buys fixed-income 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.

Credit risk exposure on balance, collateral SEK m	**2012**	**2011**
Residential property [1]	961 955	905 610
Other property	240 895	210 943
Sovereigns, municipalities and county councils	339 171	465 047
Guarantees	18 698	17 191
Financial collateral	89 458	73 374
Collateral in assets	20 115	20 869
Other collateral	57 798	59 882
Unsecured	287 854	342 666
Total credit risk exposure on balance	**2 015 944**	**2 095 582**

[1] Including housing co-operatives.

Loans to the public, collateral SEK m	**2012**	**2011**
Residential property [1]	961 955	905 610
Other property	240 895	210 943
Sovereigns, municipalities and county councils	81 404	61 170
Guarantees	18 639	17 027
Financial collateral	26 328	10 234
Collateral in assets	20 114	20 869
Other collateral	57 798	59 882
Unsecured	273 346	305 393
Loans to the public	**1 680 479**	**1 591 128**

[1] Including housing co-operatives.

Collateral which reduces the capital requirement

Collateral for the exposures that are IRB-approved is managed according to two different calculation methods: IRB foundation approach or IRB advanced approach. Collateral affects the capital requirement in different ways in these two approaches. In the foundation approach, only certain types of collateral are eligible and the estimates for LGD and CF are applied as prescribed in the regulations. The Bank does however accept other types of collateral than those considered eligible under the capital adequacy regulations.

When reporting according to the advanced approach, the Bank applies its own calculated LGD estimates per collateral type. For the exposures approved for reporting according to the advanced approach during 2010, it has been possible to use most types of collateral occurring in the Bank to reduce the capital requirement.

Since collateral affects the capital requirement to a greater extent following the implementation of the advanced approach, there is a greater incentive for the Bank to reduce the credit risks as far as possible by acquiring collateral. The Bank follows up and regularly updates the market values for the collateral used in risk mitigation. A control procedure is established, whereby the market value of residential properties is checked at least every third year and that of any other type of property is checked every year. For properties with an exposure exceeding EUR 3 million, a new valuation by an independent valuer is made at least every third year.

In accordance with permission from the Swedish Financial Supervisory Authority, the Bank uses volatility adjustments (haircuts) when calculating capital requirements according to the IRB foundation approach 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 and has a greater impact on reduction of the capital requirement. Handelsbanken regularly monitors the concentration risk in individual securities.

An advanced approach is used for retail exposures, where the exposures are categorised into various groups, partly based on the existence of collateral. For certain types of 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 where the Bank has eligible collateral, the capital requirement is reduced through an adjustment of either the PD or the LGD. The PD is adjusted in cases where there are approved protection providers, for example the issuer of a guarantee or surety as for own debt, 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 risk.

IRB-approved exposures

For capital requirement calculation of corporate exposures, property mortgages correspond to approximately 44 (40) per cent of the reported exposure amount. The equivalent figure for financial collateral mainly in the form of repos is about 3 (1) per cent and it is some 8 (9) per cent for guarantees and other collateral. The remaining exposure amount is included in the capital requirement calculation as unprotected exposure.

For retail exposures, mortgages on property – mainly residential – correspond to around 86 (85) per cent of the reported exposure amount. Of the remaining exposure amount, roughly 1 (1) percentage point is categorised as having some form of collateral, while the remaining 12 (12) percentage points are set an LGD value due to other terms. These terms are chiefly determined by factors such as the type of borrower, type of credit or number of borrowers.

For institutional exposures, financial collateral covers some 62 (54) per cent of the reported exposure amount. The corresponding figure for guarantees is approximately 2 (2) per cent. The remaining exposure amount is included in the capital requirement calculation as unprotected exposure. Of the exposures that are covered by guarantees, totalling SEK 104,514 million (107,089), SEK 78,654 million (84,545) relates to guarantees from states and municipalities, SEK 1,313 million (2,436) relates to guarantees from institutions, and SEK 24,547 million (23,108) relates to guarantees from companies. Companies that are approved as guarantors in the calculation of capital requirements according to the IRB method are of risk class 4 or better.

In cases where an approved collateral value for the capital adequacy calculation does not cover the total exposure, a unique capital requirement is calculated per collateral. The same calculation is also carried out for the unprotected part of the exposure.

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 totals about 41 (38) per cent of the reported exposure amount, of which approximately 7 (11) percentage points refer to guarantees.

For all exposures calculated using the standardised approach, the regulations state a risk weight based on the exposure class of the counterparty. The risk weight multiplied by the exposure amount gives the risk-weighted exposure amount.

Acceptable collateral which reduces the capital requirement, IRB-approved exposures		2012		2011	
SEK m	Type of collateral	Exposure amount covered by collateral	Proportion of total exposure (%)	Exposure amount covered by collateral	Proportion of total exposure (%)
Corporate exposures	- Guarantees	99 017	8	100 952	9
	- Receivables	2 472	0	2 869	0
	- Financial collateral	34 415	3	15 912	1
	- Property	522 725	44	467 151	40
Retail exposures	- Guarantees	115	0	90	0
	- Residential property[1]	673 190	86	650 732	85
Institutional exposures	- Guarantees	3 265	2	3 377	2
	- Financial collateral	85 688	62	90 348	54
	- Property	0	0	2	0
Securitisation positions	- Guarantees	2 117	54	2 670	53
Total IRB		**1 423 004**	**67**	**1 334 103**	**64**

[1] Including housing co-operatives.

Collateral which reduces the capital requirement, exposures calculated according to the standardised approach		2012		2011	
SEK m	Type of collateral	Exposure amount covered by collateral	Proportion of total exposure (%)	Exposure amount covered by collateral	Proportion of total exposure (%)
Sovereign & central banks	- Financial collateral	12 494	4	3 284	1
Institutions	- Guarantees	39	1	0	0
	- Financial collateral	60	1	12	0
Corporate	- Guarantees	6 385	16	8 735	21
	- Financial collateral	305	1	331	1
Retail	- Guarantees	0	0	3	0
	- Financial collateral	650	5	1 327	10
Collateral in property	- Property	28 018	100	19 036	100
Total standardised approach		**47 951**	**11**	**32 728**	**6**

Loan-to-value for property lending

For property financing, like all granting of credit, the borrower must have a good repayment capacity.

The below recommendation concerning maximum loan-to-value ratios (LTV) for property financing applies 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. 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 property and undeveloped land may be much more volatile than for other property, partly due to the location, alternative use etc. The LTV should therefore be well below 60 per cent. Financing of industrial and warehouse property and undeveloped land is only permitted in the Bank, i.e. this type of property is not eligible for loans from Stadshypotek.

Property lending at Stadshypotek, Sweden

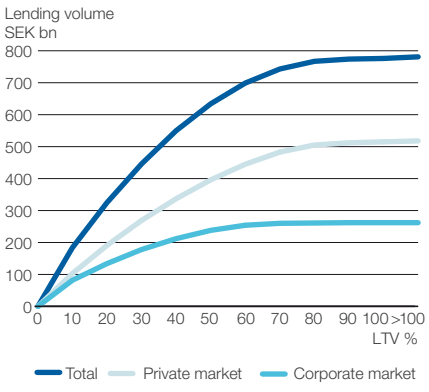
Stadshypotek's lending takes place through Handelsbanken's branch network. A co-operation agreement regulates the overarching relationship between the parties.

According to the Handelsbanken Group'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 Stadshypotek's loss if the borrower cannot fulfil his/her commitments towards Stadshypotek. Credits in Stadshypotek must therefore always be satisfactorily secured by mortgages in property or a co-operative apartment. Unsecured loans are only granted to governments or municipalities or in cases where such bodies assume responsibility for the loan.

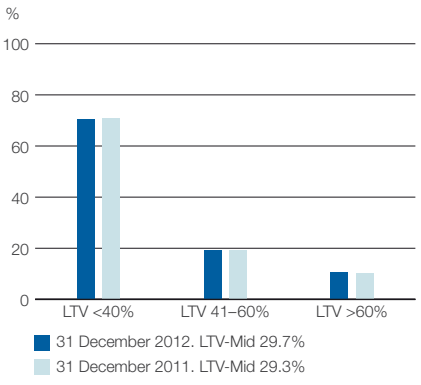
The tables below show the total loan volume broken down into loan-to-value ratios (LTV) for Stadshypotek's Swedish property lending. An accumulated distribution of the LTVs as at 31 December 2012 is also presented. The graph shows that a very heavy fall in prices of property would be required for large parts of the lending volume to exceed a 100 per cent LTV.

Loan-to-value is lending as a proportion of the market value of the collateral. The calculation takes account of any pledging with other credit institutions. The latest valuation is mainly used as the market value when compiling the LTVs. Handelsbanken continuously checks the market values for properties: residential properties at least every three years and commercial properties every year. In addition to allocating the loan volume into LTVs, the average LTV is calculated by two different methods at Stadshypotek: LTV Max where the property's highest LTV is weighted according to the principal debt, and LTV Mid where the collateral level distribution of the property is weighted according to the principal debt within the collateral level interval.

Lending volume broken down by LTV, Stadshypotek, Sweden 31 December 2012

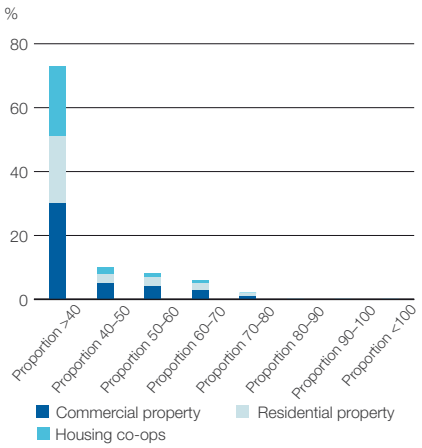


Proportion of loan volume, distributed by LTVs (Stadshypotek Sweden)



The lending in one property can occur in several intervals.

Distribution of corporate exposures by LTV (LTV mid), and property type, regional banks



LTV for property lending, Stadshypotek Sweden, mortgages specified by property, private and corporate market, 31 December 2012

	2012			2011		
	Private market %	Corporate market %	Total	Private market %	Corporate market %	Total
0–40%	65.0	81.0	70.4	66.0	80.6	70.8
41–60%	20.8	15.7	19.1	20.6	15.9	19.1
61–75%	10.1	2.9	7.7	9.8	3.1	7.6
>75%	4.1	0.4	2.8	3.6	0.4	2.5
LTV-Max	64.5	44.6	57.8	63.2	44.4	57.0
LTV-Mid	33.0	23.3	29.7	32.3	23.2	29.3

LTV-Max The highest loan-to-value of the property is weighted according to the principal debt.
LTV-Mid The collateral level distribution of the property is weighted according to the principal debt within the collateral level interval.

The risk in Handelsbanken's mortgage financing is low

Handelsbanken's loan losses result in low risk weights

The indebtedness of Swedish households and links to the housing market have long been in focus. The Swedish Financial Supervisory Authority introduced an LTV ceiling in 2010. In the past year, other measures such as amortisation requirements were discussed, and in late 2012, the Supervisory Authority proposed an increased capital requirement in Pillar 2 for Swedish mortgages. The risk weights are low because losses on Swedish mortgage loans have traditionally been very low. When historical default and loss levels are used to estimate capital requirements in the method prescribed by the IRB regulations, and the losses are very low, the risk weights will automatically be low. This section discusses the background to the assessment that the risk in Swedish mortgage financing is so low.

Since the late 1990s, Handelsbanken has had loss levels for Swedish household mortgage loans that are less than zero – that is, recoveries have been greater than provisions for new loan losses. Except for a minor price decline in 2008–2009, property prices have risen continually during this period, and thus the low loan losses are not too surprising. In a society with a strong payments culture and effective opportunities for a bank to claim mortgaged properties and sell them if a borrower defaults on the payments, it is natural that mortgage loans do not cause substantial losses as long as prices are rising.

However, losses on mortgage loans were also low in the very serious bank crisis of the early 1990s. In the worst years of the crisis, the loan loss level for Stadshypotek (which was not owned by Handelsbanken at that point) was around 0.30 per cent per year for private mortgage loans. This was a crisis that really should have affected the mortgages of Swedish households. Property prices fell by some 30 per cent from their peak to their lowest point during the crisis. Between 1990 and 1994, the unemployment rate rose from 2 to 11 per cent, while GDP shrank for three years in a row. And in the middle of the crisis, the Riksbank hiked the repo rate dramatically, leading to rising mortgage rates. Despite this deep economic crisis, which hit households hard, loan losses remained at levels which must be regarded as very low by international standards. It was also possible to absorb the losses within the interest margins for mortgages.

Why are loan losses so low?

There are a number of factors that may explain why losses on Swedish mortgage loans were not substantial, even in such a serious crisis. The most important are:

- There is a strong payments culture in Sweden, which is largely due to the strong incentives for private individuals to always prioritise their debt-related payments. Borrowers who are unable to pay cannot hand over their mortgaged property to the bank, and in so doing be rid of the loan. If there is a default on payments, the bank has effective options to claim both the mortgage property and other assets. And even if the borrower goes into bankruptcy, the debt is not written off: the bank is entitled to claim part of any future income that the borrower may have. All in all, this means that there is a very strong motivation for Swedish households to do their utmost in all circumstances to repay their debts, and to ensure that their indebtedness does not exceed what they are capable of repaying.
- The open Swedish society means that good information is available to banks when credit assessments are made. The credit information company UC AB provides plenty of access to information on private individuals that is necessary for good credit assessments, such as tax-assessed income, past payment problems and overall credit activity. This good access to information also means that, unlike in many other countries, there are few problems with false information in credit applications.
- The Swedish welfare system offers good compensation in the event of circumstances that may cause payment problems, such as unemployment or sickness. Borrowers can often meet their repayments even if they find themselves in circumstances such as these, which is not the case in many other countries.
- Property markets run a greater risk of losses if they are driven by speculative behaviour, where people buy properties for investment purposes with the aim of earning money from rental income and future price rises (i.e. buy-to-let). This phenomenon hardly exists in Sweden, because in practice, the regulation of the rental market makes such investments impossible, and the taxation system has not favoured private letting.

The risk in mortgage financing is still low

These conditions limited the losses during the 1990s crisis, but the current situation is less affected by them. In its proposal for increased risk weights, the Swedish Financial Supervisory Authority presented some reasons why the risk in Swedish mortgage loans may have risen. One of the main reasons would be that indebtedness in the Swedish household sector has increased – at least if debts are viewed in relation to disposable income. This ratio has risen from around 130 per cent before the 1990s crisis to 170 per cent today. This is mainly due to the dramatic change in interest rates. But it is also because around 170,000 rental apartments have been converted into housing co-operative apartments since the mid 1990s. This has reallocated some of the total debt from housing companies to households. In Handelsbanken's view, it is debatable whether this really does result in a higher credit risk on mortgage loans. At present, household interest expenses correspond to just over 4 per cent of disposable income, whereas before the 1990s crisis they were more than 10 per cent. For interest expenses to reach those levels, extremely sharp interest rate hikes would be required, and the extent of the burden these debts are for household finances should be the most important factor in assessing the risk level. In addition, the current monetary policy situation, where interest rates are hiked mainly when economic activity is high, means that it must be highly unlikely that rising interest rates will coincide with a situation of high unemployment and major problems in the household sector.

Another factor emphasised by the Supervisory Authority is that loan-to-value ratios for new mortgages are higher today than they were in the years immediately after 2000. A more relevant comparison should be loan-to-value ratios before the 1990s crisis, and what the overall LTV for the market as a whole currently is. According to statistics from the Riksbanken, total household debt as a proportion of total Swedish property wealth has decreased from around 70 per cent before the 1990s crisis to roughly 55 per cent today. Thus, households are mortgaging a considerably smaller part of their property wealth than before the 1990s crisis.

An important factor for property market risk is the trend for the supply of homes. In many housing crises we have seen sharply rising property prices, followed by high levels of new home starts. When the crisis has materialised, the abundant supply of new homes has pushed prices downwards. This was the case in the Swedish 1990s crisis, and also an important factor in the current housing crises in Spain, Ireland and the US. Since the 1990s crisis, Sweden has had a very low level of new home starts, which has been below the requirement of new homes justified by the population growth, particularly in the major cities. This should be regarded as an important limiting factor for risk on the Swedish property market.

All in all, Handelsbanken believes that the risk level in the Swedish property market has not increased compared with the situation before the 1990s crisis. The Bank's assessment is that the credit risk in its own mortgage loan portfolio continues to be low.

CREDIT PORTFOLIO

Breakdown of the portfolio

The Bank's credit portfolio is presented in this section based on the balance sheet item categories. The section on Capital requirement for credit risks on page 26 presents the credit portfolio based on the capital adequacy regulations.

Unlike balance sheet information – where credit risk exposure is categorised in balance sheet items in the form of loans to the public/ loans to credit institutions and off-balance sheet items divided into product type – credit exposure for the purposes of capital requirement is categorised into the exposure classes stipulated in the regulations for the respective calculation method. Exposure means the sum of items on and off the balance sheet.

Credit risk exposure SEK m	2012	2011
Loans to the public[1]	1 680 479	1 591 128
of which reverse repos	*33 799*	*13 669*
Loans to other credit institutions	89 511	106 823
of which reverse repos	*59 241*	*60 585*
Unutilised part of granted overdraft facilities	132 534	152 392
Committed loan offers	239 774	254 415
Other commitments	20 779	9 035
Guarantees, credits	10 723	17 161
Guarantees, other	39 913	42 657
Letters of credit	30 164	36 712
Derivatives[2]	110 850	142 074
Treasury bills and other eligible bills	48 906	43 971
Bonds and other fixed-income securities	68 354	60 231
Total	**2 471 987**	**2 456 599**

The amounts do not include holdings with central banks.
[1] SEK 4,078 m (4,945) of this amount is loans which upon initial recognition were classified at fair value in the income statement.
[2] Refers to the total of positive market values. Including legally viable agreements, the exposure is SEK 30,422 m (37,588).

Geographical distribution 2012	Loans				Off-balance-sheet commitments		
SEK m	Public	Credit institutions	Derivatives	Investments	Guarantees	Other	Total
Sweden	1 169 937	33 297	110 726	99 942	23 486	273 379	1 710 767
Norway	204 473	32	2	-	7 728	40 176	252 411
Finland	88 247	304	116	-	4 543	23 306	116 516
Denmark	65 200	51	121	27	2 137	19 628	87 164
UK	112 871	339	-942	0	3 763	24 207	140 238
Germany	7 136	243	20	-	3 051	7 600	18 050
Poland	2 573	86	1	-	719	190	3 569
Netherlands	13 261	3	-	-	656	5 601	19 521
Other countries	16 781	55 156	806	17 291	4 553	29 164	123 751
Total	**1 680 479**	**89 511**	**110 850**	**117 260**	**50 636**	**423 251**	**2 471 987**

Geographical distribution 2011	Loans				Off-balance-sheet commitments		
SEK m	Public	Credit institutions	Derivatives	Investments	Guarantees	Other	Total
Sweden	1 129 954	43 662	141 545	93 557	32 245	307 997	1 748 960
Norway	184 565	199	36	-	6 892	35 517	227 209
Finland	79 720	411	301	-	7 281	23 788	111 501
Denmark	59 769	159	114	63	2 270	22 999	85 374
UK	92 621	165	-606	0	2 560	20 507	115 247
Germany	7 764	426	21	-	3 878	7 650	19 739
Poland	1 942	180	4	-	567	167	2 860
Netherlands	11 921	64	0	-	100	3 346	15 431
Other countries	22 872	61 557	659	10 582	4 025	30 583	130 278
Total	**1 591 128**	**106 823**	**142 074**	**104 202**	**59 818**	**452 554**	**2 456 599**

Loans to the public, by sector	2012			2011		
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	743 454	-852	742 602	713 137	-820	712 317
of which mortgage loans	*607 163*	*-44*	*607 119*	*581 659*	*-30*	*581 629*
of which other loans with property mortgages	*67 031*	*-115*	*66 916*	*64 122*	*-100*	*64 022*
of which other loans, private individuals	*69 260*	*-693*	*68 567*	*67 356*	*-690*	*66 666*
Housing co-operative associations	129 131	-17	129 114	123 847	-4	123 843
of which mortgage loans	*105 421*	*-4*	*105 417*	*109 334*	*-4*	*109 330*
Property management	436 694	-365	436 329	396 961	-410	396 551
Manufacturing	45 170	-473	44 697	49 221	-497	48 724
Retail	33 646	-441	33 205	35 693	-305	35 388
Hotel and restaurant	8 234	-36	8 198	7 201	-120	7 081
Passenger and goods transport by sea	17 839	-406	17 433	18 356	-202	18 154
Other transport and communication	32 406	-182	32 224	37 374	-178	37 196
Construction	13 395	-106	13 289	12 371	-170	12 201
Electricity, gas and water	23 965	-25	23 940	22 091	-15	22 076
Agriculture, hunting and forestry	8 917	-15	8 902	7 331	-20	7 311
Other services	25 558	-213	25 345	24 398	-60	24 338
Holding, investment, insurance companies, mutual funds etc.	89 219	-601	88 618	85 998	-702	85 296
Sovereigns and municipalities	36 711	-	36 711	21 654	-	21 654
Other corporate lending	40 268	-108	40 160	39 656	-292	39 364
Total loans to the public, before collective provisions	**1 684 607**	**-3 840**	**1 680 767**	**1 595 289**	**-3 795**	**1 591 494**
Collective provisions			-288			-366
Total loans to the public	**1 684 607**		**1 680 479**			**1 591 128**

Loans to the public, on balance, by sector broken down by country SEK m	Sweden	Denmark	Finland	Norway	UK	Other countries	Total
Private individuals	570 956	30 515	29 473	82 078	24 316	5 264	742 602
of which mortgage loans	*523 319*	*13 305*	*21 460*	*49 035*	*0*	*0*	*607 119*
of which other loans with property mortgages	*16 905*	*12 562*	*4 170*	*14 659*	*14 554*	*4 066*	*66 916*
of which other loans, private individuals	*30 732*	*4 648*	*3 843*	*18 384*	*9 762*	*1 198*	*68 567*
Housing co-operative associations	112 218	420	6 321	10 155	0	0	129 114
Property management	241 499	10 527	19 471	80 475	69 679	14 678	436 329
Manufacturing	26 202	1 857	3 137	3 621	2 724	7 156	44 697
Retail	18 519	2 252	2 577	2 573	5 416	1 868	33 205
Hotel and restaurant	2 766	982	628	169	2 637	1 016	8 198
Passenger and goods transport by sea	4 098	4 232	4 320	4 614	39	130	17 433
Other transport and communication	24 262	1 246	3 511	938	720	1 547	32 224
Construction	6 351	415	969	4 453	1 101	0	13 289
Electricity, gas and water	11 343	221	8 234	3 233	12	897	23 940
Agriculture, hunting and forestry	8 184	192	36	53	437	0	8 902
Other services	11 316	2 133	2 605	3 314	3 364	2 613	25 345
Holding, investment, insurance companies, mutual funds etc.	70 880	6 567	1 313	6 933	1 252	1 673	88 618
Sovereigns and municipalities	31 845	3	4 624	237	0	2	36 711
Other corporate lending	29 679	3 650	1 050	1 669	1 194	2 918	40 160
Total loans to the public, before collective provisions	**1 170 118**	**65 212**	**88 269**	**204 515**	**112 891**	**39 762**	**1 680 767**
Collective provisions	-181	-13	-22	-43	-20	-11	-288
Total loans to the public	**1 169 937**	**65 200**	**88 247**	**204 473**	**112 871**	**39 751**	**1 680 479**

Securitisation

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

Handelsbanken has applied the IRB approach to securitisations in other operations since the fourth quarter of 2008.

All securitised exposures were acquired prior to 2008. Handelsbanken's total exposure in securitisation positions after credit risk protection amounts to SEK 1,819 million (2,382). Of this sum, SEK 496 million (438) has been deducted from the capital base. All positions are in the role of investor. The risk weight for positions in securitisations is determined on the basis of external credit rating using the external rating approach.

Securitisation positions in other operations after credit risk protection by risk weight 2012

		Risk weight		
SEK m	Exposure amount	7–10%	12–850%	1 250%
Traditional securitisation	1 323	807		516
Synthetic securitisation	-	-	-	-
Total IRB	**1 323**	**807**		**516**

Securitisation positions in trading portfolio by risk weight 2012

		Risk weight		
SEK m	Exposure amount	7–10%	12–850%	1 250%
Securitisation	174	174	-	-
Total	**174**	**174**		

Securitisation positions in other operations after credit risk protection by risk weight 2011

		Risk weight		
SEK m	Exposure amount	7–10%	12–850%	1 250%
Traditional securitisation	1 944	1 305	-	639
Synthetic securitisation	-	-	-	-
Total IRB	**1 944**	**1 305**		**639**

Securitisation positions in trading portfolio by risk weight 2011

		Risk weight		
SEK m	Exposure amount	7–10%	12–850%	1 250%
Securitisation	232	232	-	-
Total	**232**	**232**		

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, irrespective of whether 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. The Bank monitors and calculates concentration risks continually for various business sectors, geographic areas and individual major exposures. 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. This ensures that Handelsbanken has sufficient capital, 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 considerable lending operations for property management (SEK 437 billion). Property management here refers to all companies assessed for credit purposes as "property companies". It is common for groups of companies operating in other industries to have subsidiaries managing the properties in which the group conducts its business, and such property companies are here also considered to belong to the property management. However, the underlying credit risk in such cases is not only property-related.

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. A large part of lending to the property sector is therefore to companies with a very low probability of default and low LTVs. 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 normal risk in risk class 5 is very low. Some 96 (96) per cent of total property lending in Sweden is in risk class 5 or better. The corresponding figures for property lending in the UK, Denmark, Norway and Finland are 94 (95) per cent, 91 (88) per cent, 95 (95) per cent and 99 (99) per cent (99) respectively. For counterparties in poorer risk classes than normal, the majority are in risk classes 6 or 7 with only small volumes in the higher risk classes 8 and 9.

In the past few years, Handelsbanken has seen major credit growth in the UK as a result of a planned expansion of the branch network. A relatively large part of the growth has been in property-related credits. This has occurred during a period of poor performance in the UK property market. A strict credit policy often makes it easier to assess creditworthiness in a poorer economic climate since it is easier to identify potential problems. In its expansion, Handelsbanken has had the same strict requirements on repayment capacity and collateral quality as in its other home markets. The result of this is a high concentration of customers in good risk classes and a loan loss ratio in line with other home markets.

Specification Loans to the public – Property management SEK m	2012 Loans before deduction of provisions	2012 Provisions for probable loan losses	2012 Loans after deduction of provisions	2011 Loans before deduction of provisions	2011 Provisions for probable loan losses	2011 Loans after deduction of provisions
Loans in Sweden						
State-owned property companies	9 213		9 213	11 808	-	11 808
Municipal-owned property companies	14 468		14 468	15 566	-	15 566
Residential property companies	72 894	-13	72 881	65 556	-12	65 544
of which mortgage loans	*52 759*	*-3*	*52 756*	*46 404*	*-2*	*46 402*
Other property management	145 066	-129	144 937	130 250	-127	130 123
of which mortgage loans	*61 097*	*-5*	*61 092*	*58 036*	*-8*	*58 028*
Total loans in Sweden	**241 641**	**-142**	**241 499**	**223 180**	**-139**	**223 041**
Loans outside Sweden						
Denmark	10 623	-96	10 527	9 408	-48	9 360
Finland	19 481	-10	19 471	18 718	-	18 718
Norway	80 549	-74	80 475	74 615	-73	74 542
UK	69 699	-20	69 679	56 953	-127	56 826
Other countries	14 701	-23	14 678	14 087	-23	14 064
Total loans outside Sweden	**195 053**	**-223**	**194 830**	**173 781**	**-271**	**173 510**
Total loans – Property management	**436 694**	**-365**	**436 329**	**396 961**	**-410**	**396 551**

Specification Loans to the public – Property management Collateral SEK m	2012 Total	2012 Companies owned by government and municipality/ property lending guaranteed by government and municipality	2012 Multi-family dwellings/ residential property	2012 Commercial properties and other collateral	2011 Total	2011 Companies owned by government and municipality/ property lending guaranteed by government and municipality	2011 Multi-family dwellings/ residential property	2011 Commercial properties and other collateral
Sweden	241 641	25 252	80 983	135 406	223 180	29 585	74 978	118 617
Norway	80 549	24	17 146	63 379	74 615	26	13 177	61 412
Finland	19 481	6 624	2 492	10 365	18 718	6 256	2 432	10 030
Denmark	10 623	1	5 368	5 254	9 408	-	3 905	5 503
UK	69 699	9	29 339	40 351	56 953	-	23 239	33 714
Other countries	14 701	694	1 801	12 206	14 087	-	580	13 507
Total	**436 694**	**32 604**	**137 129**	**266 961**	**396 961**	**35 867**	**118 311**	**242 783**

Specification – Loans to the public – Property management, risk class and country 2012
SEK m

Risk class	Sweden	Norway	Finland	Denmark	UK	Other countries	Total	%	Accum.% of total
1	20 059	1 218	3 125	3	1 027	882	26 314	6.03	6
2	71 341	17 202	8 156	545	11 856	6 165	115 265	26.39	32
3	88 330	34 650	6 119	3 650	31 319	6 105	170 173	38.97	71
4	37 792	18 761	1 351	4 015	14 745	855	77 519	17.75	89
5	16 651	4 870	523	1 412	6 491	331	30 278	6.93	96
6	4 663	2 018	84	263	1 883	260	9 171	2.10	98
7	1 864	1 185	90	169	1 265	17	4 590	1.05	99
8	328	109	9	233	121	16	816	0.19	99
9	171	67	7	1	37	-	283	0.07	99
Defaults	442	469	17	332	954	71	2 285	0.52	100
Total	**241 641**	**80 549**	**19 481**	**10 623**	**69 698**	**14 702**	**436 694**	**100**	

Specification – Loans to the public – Property management, risk class and country 2011
SEK m

Risk class	Sweden	Norway	Finland	Denmark	UK	Other countries	Total	%	Accum.% of total
1	18 912	1 109	2 292	17	523	567	23 420	5.90	6
2	58 279	16 744	6 620	272	7 512	6 777	96 204	24.23	30
3	80 422	32 228	7 175	2 811	25 377	5 698	153 711	38.72	69
4	37 591	15 615	1 803	3 498	13 670	308	72 485	18.26	87
5	18 426	5 482	674	1 722	7 173	334	33 811	8.52	96
6	5 481	1 595	27	248	998	300	8 649	2.18	98
7	2 925	1 034	53	191	807	5	5 015	1.26	99
8	396	343	10	119	104	12	984	0.25	99
9	230	21	-	52	97	-	400	0.10	99
Defaults	518	444	64	478	692	86	2 282	0.57	100
Total	**223 180**	**74 615**	**18 718**	**9 408**	**56 953**	**14 087**	**396 961**	**100**	

Specification – Loans to the public – Property management, risk class and type of collateral 2012
SEK m

	Exposure	Collateral				
Risk class		Multi-family dwellings/ residential property	Commercial property	Guarantee from government or municipality	Other collateral	Unsecured
1	26 314	13 815	5 590	3 406	555	2 948
2	115 265	35 677	50 046	6 772	968	21 802
3	170 173	56 803	84 866	3 934	5 198	19 372
4	77 519	22 030	43 577	619	4 963	6 330
5	30 278	10 483	13 538	348	3 195	2 714
6	9 171	2 829	4 343	25	681	1 293
7	4 590	1 586	2 108	16	157	723
8	816	339	396	2	9	70
9	283	54	162	0	43	24
Defaults	2 285	846	745	8	68	618
Total	**436 694**	**144 462**	**205 371**	**15 130**	**15 837**	**55 894**

Specification – Loans to the public – Property management, risk class and type of collateral 2011
SEK m

	Exposure	Collateral				
Risk class		Multi-family dwellings/ residential property	Commercial property	Guarantee from government or municipality	Other collateral	Unsecured
1	23 420	11 566	5 343	3 180	497	2 834
2	96 204	25 449	39 066	7 664	826	23 199
3	153 711	48 558	70 837	4 957	6 043	23 316
4	72 485	20 790	37 830	924	5 271	7 670
5	33 811	11 639	16 979	438	1 577	3 178
6	8 649	2 787	2 866	26	466	2 504
7	5 015	1 936	2 193	50	180	656
8	984	450	426	0	3	105
9	400	175	134	4	3	84
Defaults	2 282	859	913	3	98	409
Total	**396 961**	**124 209**	**176 587**	**17 246**	**14 964**	**63 955**

IMPAIRMENTS AND PAST DUE LOANS

Loans are defined as impaired if contracted cash flows are not likely to be fulfilled. The full amount of all loans which have been classified as impaired are carried as impaired loans even if parts of the loan are covered by collateral. This means that the reserve ratio (provision for probable loan losses as a proportion of impaired loans) does not provide an indication of the remaining risk of loss. Loans which have been written off as actual loan losses are not included in impaired loans.

A past due loan is identified as a loan for which interest, repayments or overdrafts have been overdue for payment for more than five days. In addition to the definition of default established in the capital adequacy regulations, the time for identification of a past due claim is determined internally.

All units with customer and credit responsibility in the Handelsbanken Group regularly perform individual assessments of the need to recognise impairment losses for loans and receivables 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, according to the circumstances, be late or non-payment, changed 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. Collateral in the form of property mortgages is valued in the same way as repossessed real property. An impairment loss is recognised if the estimated recoverable amount is less than the carrying amount and is recognised as a loan loss in the income statement. A reported loan loss reduces the carrying amount of the loan in the balance sheet, either directly (actual loss) or by a provision account for loan losses (probable loss). Information concerning repossessed property 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 homogenous 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 lower creditworthiness but that have not been observed individually 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. Impairment losses which have been recognised for a group of loans are transferred to impairment losses for individual loans as soon as there is information that a provision at an individual level is needed.

Loan losses for the period comprise actual losses and probable losses on credits granted, minus 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 reconstruction 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 comprise reversed amounts on loan losses previously reported as actual losses. Information about probable and actual losses is provided in note G10, Loan losses, in the Annual Report.

Impairment losses on available-for-sale financial assets are recognised when there is objective evidence that one or more events of default have occurred with an impact on the expected future cash flows for the asset. For interest-bearing financial assets, examples of events of default that may indicate an impairment loss are a probable bankruptcy, evidence of considerable financial difficulties on the part of the issuer or evidence of permanent changes in the market for the asset. 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 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.

The below maturity analysis of past due loans that are not impaired loans is divided into the volumes in question based on the balance sheet. For non-performing loans that are not impaired loans, the assessment is that contracted payments will probably be fulfilled.

Analysis of past due loans that are not impaired loans 2012		Loans to the public			
SEK m	Loans to credit institutions	Retail	Corporate	Other	Total
Past due ≥ 5 days ≤1 month	-	3 827	1 636	-	5 463
Past due >1 month ≤2 months	-	481	154	-	635
Past due >2 months ≤3 months	-	391	119	-	510
Past due >3 months ≤12 months	-	1 035	213	-	1 248
Past due >12 months	-	591	214	-	805
Total	**-**	**6 325**	**2 336**	**-**	**8 661**

Analysis of past due loans that are not impaired loans 2011		Loans to the public			
SEK m	Loans to credit institutions	Retail	Corporate	Other	Total
Past due ≥ 5 days ≤1 month	-	3 254	1 219	-	4 473
Past due >1 month ≤2 months	-	577	167	-	744
Past due >2 months ≤3 months	-	435	149	-	584
Past due >3 months ≤12 months	-	807	291	-	1 098
Past due >12 months	-	324	156	-	480
Total	**-**	**5 397**	**1 982**	**-**	**7 379**

Past due exposures, provisions for probable losses and impact on profit/loss for IRB-approved exposures, by exposure classes 2012

SEK m	Past due > 5 days EAD	EAD on agreement for provision	Provision probable losses	Impact on profit/loss 2012 Gross provision[1]	Impact on profit/loss 2012 Net incl. reversals
Corporate exposures	5 175	2 890	1 786	-884	-733
Retail exposures	7 117	1 625	1 319	-427	-400
private individuals	6 258	1 055	779	-262	-251
of which property loans	*3 690*	*211*	*156*	*-54*	*-52*
of which other	*2 568*	*844*	*623*	*-208*	*-199*
small companies	859	570	540	-165	-149
of which property loans	*54*	*207*	*196*	*-60*	*-50*
of which other	*805*	*363*	*344*	*-105*	*-99*
Institutional exposures	53	0	0	0	0
Securitisation positions	0	1 011	516	0	86
Total	**12 345**	**5 526**	**3 621**	**-1 312**	**-1 048**

Past due exposures, exposures with impairment losses and impact on profit/loss for non-IRB-approved exposures using the standardised approach 2012

SEK m	Exposures with provision	Provision probable losses	Impact on profit/loss 2012 Gross provision[1]	Impact on profit/loss 2012 Net incl. reversals
Past due items	431	219	-79	-68

[1] Gross provisions refer to probable losses which have reduced the year's profits, excluding reversals.

Past due exposures, provisions for probable losses and impact on profit/loss for IRB-approved exposures, by exposure classes 2011

SEK m	Past due > 5 days EAD	EAD on agreement for provision	Provision probable losses	Impact on profit/loss 2011 Gross provision[1]	Impact on profit/loss 2011 Net incl. reversals
Corporate exposures	3 769	2 860	1 687	-859	-597
Retail exposures	6 429	1 575	1 197	-386	-337
private individuals	5 556	1 027	605	-230	-215
of which property loans	*3 272*	*221*	*130*	*-41*	*-38*
of which other	*2 284*	*806*	*475*	*-189*	*-177*
small companies	873	548	592	-156	-122
of which property loans	*51*	*198*	*214*	*-61*	*-53*
of which other	*822*	*350*	*378*	*-95*	*-69*
Institutional exposures	7	0	0	0	0
Securitisation positions	0	1 077	639	0	0
Total	**10 205**	**5 512**	**3 523**	**-1 245**	**-934**

Past due exposures, exposures with impairment losses and impact on profit/loss for non-IRB-approved exposures using the standardised approach 2011

SEK m	Exposures with provision	Provision probable losses	Impact on profit/loss 2011 Gross provision[1]	Impact on profit/loss 2011 Net incl. reversals
Past due items	499	272	-96	-72

[1] Gross provisions refer to probable losses which have reduced the year's profits, excluding reversals.

Impaired and/or non-performing loans, by sector 2012	Impaired loans				
SEK m	Gross	Provisions	Net[1]	Of which non-performing	Non-performing loans which are not impaired loans
Private individuals	1 541	-852	689	584	1 611
Housing co-operative associations	32	-17	15	12	46
Property management	1 004	-365	639	365	465
Manufacturing	829	-473	356	174	118
Retail	1 085	-441	644	399	45
Hotel and restaurant	79	-36	43	42	19
Passenger and goods transport by sea	419	-406	13	13	0
Other transport and communication	288	-182	106	105	17
Construction	216	-106	110	107	66
Electricity, gas and water	88	-25	63	1	13
Agriculture, hunting and forestry	26	-15	11	9	36
Other services	415	-213	202	190	59
Holding, investment, insurance companies, mutual funds etc.	1 153	-601	552	25	13
Other corporate lending	150	-108	42	42	55
Credit institutions	-	-	-	-	-
Total	**7 325**	**-3 840**	**3 485**	**2 068**	**2 563**

Impaired and/or non-performing loans, by sector 2011	Impaired loans				
SEK m	Gross	Provisions	Net[1]	Of which non-performing	Non-performing loans which are not impaired
Private individuals	1 418	-820	598	495	1 464
Housing co-operative associations	7	-4	3	-	76
Property management	1 275	-410	865	515	296
Manufacturing	933	-497	436	307	51
Retail	497	-305	192	182	59
Hotel and restaurant	173	-120	53	53	29
Passenger and goods transport by sea	202	-202	0	0	0
Other transport and communication	244	-178	66	57	20
Construction	289	-170	119	114	51
Electricity, gas and water	37	-15	22	2	-
Agriculture, hunting and forestry	26	-20	6	5	23
Other services	115	-60	55	45	56
Holding, investment, insurance companies, mutual funds etc.	1 231	-702	529	44	33
Other corporate lending	411	-292	119	100	3
Credit institutions	-	-	-	-	-
Total	**6 858**	**-3 795**	**3 063**	**1 919**	**2 161**

Impaired and/or non-performing loans, geographic distribution 2012	Impaired loans				
SEK m	Gross	Provisions	Net[1]	Of which non-performing	Non-performing loans which are not impaired
Sweden	2 762	-1 636	1 109	989	1 327
Norway	645	-292	353	207	417
Finland	1 042	-318	724	415	278
Denmark	1 239	-811	428	237	34
UK	440	-158	282	177	441
Rest of Europe	174	-92	82	43	66
North America	1 021	-516	505	-	-
Asia	2	0	2	-	-
Total	**7 325**	**-3 840**	**3 485**	**2 068**	**2 563**

Impaired and/or non-performing loans, geographic distribution 2011	Impaired loans				
SEK m	Gross	Provisions	Net[1]	Of which non-performing	Non-performing loans which are not impaired loans
Sweden	2 576	-1 591	985	913	1 252
Norway	564	-358	206	188	565
Finland	817	-374	443	279	224
Denmark	895	-541	354	195	43
UK	815	-260	555	316	33
Rest of Europe	103	-31	72	27	44
North America	1 083	-639	444	-	-
Asia	5	-1	4	1	0
Total	**6 858**	**-3 795**	**3 063**	**1 919**	**2 161**

[1] Carrying amount after deduction of specific provisions for individually valued loans and provisions for collectively valued loans, but excluding collective provisions for loans which are individually assessed.

Loan losses SEK m	2012	2011
Specific provision for individually assessed loans		
The year's provision	-1 460	-1 341
Reversal of previous provisions	344	335
Total	**-1 116**	**-1 006**
Collective provisions		
The year's net provision for individually assessed loans	77	29
The year's net provision for homogeneous loans	5	33
Total	**82**	**62**
Off-balance-sheet items		
Losses on off-balance-sheet items	-	14
Reversal of losses on off-balance-sheet items	0	-
Changes in collective provision for off-balance-sheet items	5	2
Total	**5**	**16**
Write-offs		
Actual loan losses for the year	-1 383	-2 669
Utilised share of previous provisions	975	2 271
Recoveries	186	510
Total	**-222**	**112**
Net loan losses	**-1 251**	**-816**

Impaired loans etc. SEK m	2012	2011
Impaired loans	7 325	6 858
Specific provisions for individually assessed loans	-3 725	-3 680
Provisions for collectively assessed homogeneous groups of loans with limited value and similar credit risk	-115	-115
Provisions by group for individually assessed loans	-288	-366
Net impaired loans	**3 197**	**2 697**
Total impaired loans reserve ratio, %	56.4	60.7
Proportion of impaired loans, %	0.18	0.16
Impaired loans reserve ratio excluding collective provisions, %	52.4	55.3
Non-performing but not impaired loans	2 563	2 161
Impaired loans reclassified as normal loans during the year	41	344

Loans are classified as impaired loans if contracted cash flows are not likely to be fullfilled. The full amount of all claims which give rise to a specific provision is included in impaired loans even if parts are covered by collateral. This means that the reserve ratio does not take into account collateral received. Non-performing loans are loans where interest, repayments or overdrafts have been due for payment for more than 60 days.

Change in provision for probable loan losses 2012 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	**-3 680**	**-366**	**-115**	**-4 161**
The year's provision	-1 460	-	-82	-1 473
Reversal of previous provisions	344	77	15	367
Utilised for actual loan losses	975		72	1 047
Foreign exchange effect etc.	96	1	-5	92
Provision at end of year	**-3 725**	**-288**	**-115**	**-4 128**

Change in provision for probable loan losses 2011 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	**-5 039**	**-396**	**-157**	**-5 592**
The year's provision	-1 341	-	-78	-1 421
Reversal of previous provisions	335	29	33	397
Utilised for actual loan losses	2 271		78	2 350
Foreign exchange effect etc.	94	1	9	105
Provision at end of year	**-3 680**	**-366**	**-115**	**-4 161**

CAPITAL REQUIREMENT FOR CREDIT RISKS

This section presents the credit portfolio based on the capital adequacy regulations. The presentations show both the IRB approach and the standardised approach. The IRB portfolios are divided into the foundation approach and the advanced approach. For balance sheet information, see the previous section concerning the credit portfolio. When the capital requirement is calculated, this is normally done for credit exposures calculated according to EAD (exposure at default). This 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 requirement

The table below shows exposures and the total exposure amounts within the IRB-approved credit portfolio, their risk-weighted amounts and the capital requirement the exposures will generate. Exposures are the total exposures on and off the balance sheet. Exposure at default (EAD) is the exposure on which the capital requirement is calculated under the capital adequacy regulations. For off-balance-sheet commitments, EAD is smaller than the nominal exposure, because the full value of these commitments is not subject to capital requirement. 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.

When the Bank calculates the capital requirement according to the advanced approach, different risk estimates are used for the LGD and CF than those stated in the regulations for the foundation approach. Risk estimates according to the advanced approach are based on the Bank's historical outcome data corrected for business cycle factors and applying the security margins approved by the Swedish Financial Supervisory Authority. Unlike the foundation approach, in the advanced approach the capital

Credits approved for internal risk classification and exposures according to various definitions and details of capital requirements for various exposure classes, 2012

SEK m	Exposure before credit risk protection	Exposure amount (EAD)	Of which off-balance sheet	Average exposure amount	Risk-weighted amount	Average risk weight %	Exposure-weighted LGD %	Capital requirement
Corporate exposures	**1 184 843**	**944 987**	**156 352**	**923 782**	**287 825**	**30**	**30**	**23 026**
of which repos and securities loans	*23 286*	*23 286*	*5 449*	-	*147*	*0.6*	-	*12*
of which other lending, foundation approach	*518 978*	*341 048*	*134 155*	-	*151 711*	*45*	-	*12 137*
of which other lending, advanced approach	*642 579*	*580 653*	*16 748*	-	*135 967*	*23*	*24*	*10 877*
- small and medium-sized companies	*85 748*	*72 467*	*7 151*	-	*44 365*	*61*	-	*3 549*
- property companies	*423 502*	*380 147*	*7 951*	-	*82 655*	*22*	-	*6 612*
- housing co-operative associations	*133 329*	*128 039*	*1 646*	-	*8 947*	*7*	-	*716*
Retail exposures	**784 725**	**780 772**	**43 646**	**769 713**	**67 521**	**9**	**16**	**5 402**
private individuals	754 396	752 176	37 561	740 884	56 619	8	16	4 529
of which property loans	*665 970*	*665 970*	*11 948*	-	*36 060*	*5*	-	*2 885*
of which other	*88 426*	*86 206*	*25 613*	-	*20 559*	*24*	-	*1 645*
small companies	30 329	28 596	6 085	28 830	10 902	38	34	872
of which property loans	*7 223*	*7 222*	*13*	-	*1 826*	*25*	-	*148*
of which other	*23 106*	*21 374*	*6 072*	-	*9 076*	*42*	-	*726*
Institutional exposures	**139 143**	**128 748**	**51 678**	**129 038**	**12 199**	**9**	**15**	**976**
of which repos and securities loans	*76 588*	*76 588*	*12 672*	-	*475*	*0.6*	-	*38*
of which other lending	*62 555*	*52 160*	*39 006*	-	*11 724*	*23*	-	*938*
Equity exposures	**5 206**	**5 206**		**4 910**	**7 295**	**140**	**-**	**584**
Exposures without a counterparty	**2 279**	**2 279**		**2 280**	**2 279**	**100**	**-**	**182**
Securitisation positions	**3 936**	**1 323**		**1 469**	**46**	**3**	**-**	**4**
Traditional securitisation	3 936	1 323		1 469	46	3	-	4
Synthetic securitisation	-	-	-	-	-	-	-	-
Total IRB	**2 120 132**	**1 863 315**	**251 676**	**1 831 192**	**377 165**	**20**		**30 174**

Credits in the parts of the credit portfolio for which capital requirements are calculated using the standardised approach, details of capital requirements for various exposure classes where exposures exist, 2012

SEK m	Exposure before credit risk protection	Exposure amount	Of which off-balance sheet	Average exposure amount	Risk-weighted amount	Average risk weight %	Capital requirement
Sovereign and central banks	292 312	301 760	32 015	404 727	111	0.04	9
Municipalities	23 870	53 038	14 120	53 724	17	0.03	1
Multilateral development banks	673	673	0	1 358	0	0	0
Institutions	5 036	4 606	6 160	5 949	1 288	28	103
Corporate	40 047	22 325	13 663	23 753	22 325	100	1 786
Retail	12 797	9 340	4 242	9 488	7 005	75	560
Property mortgages	28 018	25 961	2 790	22 614	9 871	38	790
Past due items	431	173	6	154	238	138	19
Other items	10 283	10 283	0	13 429	6 632	64	531
Total standardised	**413 467**	**428 159**	**72 996**	**535 196**	**47 487**	**11**	**3 799**
Total IRB + standardised	**2 533 599**	**2 291 474**	**324 672**	**2 366 388**	**424 652**	**19**	**33 973**

requirement is also affected by the maturity of the credit. The risk estimates for LGD and CF led to a slight reduction of the capital requirement at the first reporting occasion as at the fourth quarter of 2010. On the other hand, application of the maturity factor (M) meant that the capital requirement increased compared with the foundation approach. Thus, the overall impact on the capital requirement of the introduction of the advanced approach was only marginal.

In the corporate exposure class SEK 74,469 million (77,844) is covered by guarantees for counterparties within the sovereign and municipal exposure class and in the institutional class. This reduces the exposure amount. The corresponding figure for institutional exposures is SEK 3,265 million (3,377). When there is a guarantor, the capital requirement is calculated as if this party were the counterparty instead of the original counterparty. This is 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 calculation of 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 make a loan loss.

For the non IRB-approved parts of the credit portfolio and also where a permanent/time-limited approval has been given by the Swedish Financial Supervisory Authority, the capital requirement for credit risks during 2012 is calculated according to the standardised approach. The table below shows the exposure and capital requirement for the standardised portfolio.

Credits approved for internal risk classification and exposures according to various definitions and details of capital requirements for various exposure classes, 2011

SEK m	Exposure before credit risk protection	Exposure amount (EAD)	Of which off-balance-sheet	Average exposure amount	Risk-weighted amount	Average risk weight %	Exposure-weighted LGD %	Capital requirement
Corporate exposures	**1 158 380**	**917 480**	**173 377**	**898 962**	**306 612**	**33**	**32**	**24 529**
of which repos and securities loans	*6 340*	*6 340*	*2 166*	-	*95*	*1.5*	-	*8*
of which other lending, foundation approach	*552 981*	*374 461*	*154 038*	-	*163 151*	*44*	-	*13 052*
of which other lending, advanced approach	*599 059*	*536 679*	*17 173*	-	*143 366*	*27*	*25*	*11 469*
- Small and medium-sized companies	*87 819*	*75 068*	*8 077*	-	*49 366*	*66*	-	*3 949*
- Property companies	*383 228*	*339 390*	*7 362*	-	*85 150*	*25*	-	*6 812*
- Housing co-operative associations	*128 012*	*122 221*	*1 734*	-	*8 850*	*7*	-	*708*
Retail exposures	**764 716**	**760 469**	**43 835**	**751 073**	**64 301**	**8**	**16**	**5 144**
private individuals	732 736	730 669	37 785	721 195	52 717	7	15	4 217
of which property loans	*643 450*	*643 449*	*11 537*	-	*34 936*	*5*	-	*2 795*
of which other	*89 286*	*87 220*	*26 248*	-	*17 781*	*20*	-	*1 422*
small companies	31 980	29 800	6 050	29 878	11 584	39	32	927
of which property loans	*7 285*	*7 283*	*17*	-	*1 903*	*26*	-	*152*
of which other	*24 695*	*22 517*	*6 033*	-	*9 681*	*43*	-	*775*
Institutional exposures	**168 271**	**158 538**	**60 824**	**175 289**	**19 484**	**12**	**19**	**1 559**
of which repos & securities loans	*79 640*	*79 640*	*14 049*	-	*402*	*0.5*	-	*32*
of which other lending	*88 631*	*78 898*	*46 775*	-	*19 082*	*24*	-	*1 527*
Equity exposures	**4 355**	**4 355**		**4 845**	**5 933**	**136**	**-**	**475**
Exposures without a counterparty	**2 364**	**2 364**		**2 119**	**2 364**	**100**	**-**	**189**
Securitisation positions	**5 051**	**1 944**		**2 818**	**97**	**5**	**-**	**8**
Traditional securitisation	5 051	1 944		2 818	97	5	-	8
Synthetic securitisation	-	-	-	-	-	-	-	-
Total IRB	**2 103 137**	**1 845 150**	**278 036**	**1 835 106**	**398 791**	**22**		**31 904**

Credits in the parts of the credit portfolio for which capital requirements are calculated using the standarised approach, Details of capital requirements for various exposure classes where exposures exist, 2011

SEK m	Exposure before credit risk protection	Exposure amount	Of which off-balance-sheet	Average exposure amount	Risk-weighted amount	Average risk weight %	Capital requirement
Sovereign and central banks	410 897	426 725	36 371	343 093	234	0.05	19
Municipalities	23 059	57 897	10 716	59 693	19	0.03	1
Multilateral development banks	2 372	2 372	0	593	0	0.0	0
Institutions	5 529	6 835	7 146	6 632	1 923	28	154
Corporate	40 664	24 485	9 608	25 835	24 485	100	1 958
Retail	12 877	9 015	3 458	9 821	6 761	75	541
Property mortgages	19 052	17 833	1 564	17 126	6 844	38	548
Past due items	499	190	4	461	270	142	22
Other items	11 263	11 253	21	10 141	6 459	57	517
Total Standardised	**526 212**	**556 605**	**68 888**	**473 395**	**46 995**	**8**	**3 760**
Total IRB + Standardised	**2 629 349**	**2 401 755**	**346 924**	**2 308 501**	**445 786**	**19**	**35 664**

Geographical distribution

IRB-approved exposures per country, divided into corporate, retail, institutional and securitisation exposures, 2012

Exposures before credit risk protection SEK m	Corporate exposures	Retail exposures		Institutional exposures	Securitisation positions	
		Private individuals	Small companies		Traditional	Synthetic
Sweden	710 230	601 738	24 388	66 900	574	-
Norway	165 680	87 150	1 472	152	0	-
Finland	81 245	32 261	1 437	254	0	-
Denmark	41 600	33 247	3 032	13	0	-
UK	126 588	0	0	16 292	0	-
USA	24 050	0	0	51 695	3 362	-
Other countries	35 450	0	0	3 837	0	-
Total	**1 184 843**	**754 396**	**30 329**	**139 143**	**3 936**	

Exposures calculated using the standardised approach per country, distributed by exposure class, 2012

Exposures before credit risk protection SEK m	Sovereign and central banks	Municipalities	Multilateral development banks	Institutions	Corporate	Retail	Property mortgage	Past due items	Other items
Sweden	42 790	18 618	673	3 141	12 536	1 140	222	21	5 594
Norway	8 759	819	0	2	1 968	578	601	5	2 822
Finland	76 200	3 019	0	392	115	12	39	0	1 057
Denmark	9 897	466	0	171	793	1 497	0	35	686
UK	528	946	0	132	1 476	8 062	20 957	137	76
USA	148 651	0	0	99	666	1	6	0	22
Other countries	5 487	2	0	1 099	22 493	1 507	6 193	233	26
Total standardised	**292 312**	**23 870**	**673**	**5 036**	**40 047**	**12 797**	**28 018**	**431**	**10 283**

IRB-approved exposures per country, divided into corporate, retail, institutional and securitisation exposures, 2011

Exposures before credit risk protection SEK m	Corporate exposures	Retail exposures		Institutional exposures	Securitisation positions	
		Private individuals	Small companies		Traditional	Synthetic
Sweden	731 406	588 306	25 480	84 802	1 196	-
Norway	144 376	81 523	1 697	314	0	-
Finland	75 466	32 922	1 692	253	0	-
Denmark	35 152	29 985	3 111	3	0	-
UK	107 853	0	0	17 711	0	-
USA	26 645	0	0	58 914	3 855	-
Other countries	37 482	0	0	6 274	0	-
Total	**1 158 380**	**732 736**	**31 980**	**168 271**	**5 051**	**-**

Exposures calculated using the standardised approach per country, distributed by exposure class, 2011

Exposures before credit risk protection SEK m	Sovereign and central banks	Municipalities	Multilateral development banks	Institutions	Corporate	Retail	Property mortgage	Past due items	Other items
Sweden	45 081	19 145	2 372	3 890	10 982	298	0	1	7 238
Norway	16 346	240	0	7	594	1 143	0	2	2 664
Finland	87 665	2 263	0	161	922	40	0	0	718
Denmark	17 583	484	0	250	692	1 046	0	84	377
UK	1 153	922	0	106	1 871	7 662	15 136	40	42
USA	239 436	0	0	58	1 289	16	12	0	42
Other countries	3 633	5	0	1 057	24 314	2 672	3 904	372	182
Total standardised	**410 897**	**23 059**	**2 372**	**5 529**	**40 664**	**12 877**	**19 052**	**499**	**11 263**

EAD by country broken down into IRB-approved exposures and exposures calculated using the standardised approach	2012		2011	
SEK m	IRB	Standardised	IRB	Standardised
Sweden	1 247 998	102 019	1 260 022	120 697
Norway	229 690	13 616	209 967	20 294
Finland	86 080	91 911	80 460	102 138
Denmark	73 857	12 557	65 635	20 222
UK	129 123	29 170	116 382	23 649
USA	67 926	151 513	78 958	242 642
Other countries	28 641	27 373	33 726	26 963
Total	**1 863 315**	**428 159**	**1 845 150**	**556 605**

Breakdown by sector and type of counterparty

IRB-approved exposures by sector and type of counterparty, broken down into corporate exposures and retail exposure/small companies

	Exposures before credit risk protection 2012		Exposures before credit risk protection 2011	
SEK m	Corporate	Small companies	Corporate	Small companies
Housing co-operative associations	134 227	0	129 160	0
Property management	485 447	2 395	436 457	2 467
Manufacturing	108 597	2 409	123 747	2 653
Retail	56 123	5 815	56 321	6 204
Hotel and restaurant	7 215	1 241	6 362	1 225
Passenger and goods transport by sea	25 690	65	26 471	74
Other transport and communication	57 317	2 463	58 553	2 700
Construction	23 629	3 730	22 960	3 936
Electricity, gas and water	42 073	146	44 172	154
Agriculture, hunting and forestry	8 287	1 706	7 859	1 735
Other services	35 924	5 724	32 757	5 780
Holding, investment, insurance companies, mutual funds etc.	162 913	1 890	182 979	1 961
Other corporate lending	37 401	2 745	30 582	3 091
Total IRB	**1 184 843**	**30 329**	**1 158 380**	**31 980**

Information on maturity intervals

IRB-approved exposures broken down by maturity for various exposure classes, 2012

SEK m	Exposures before credit risk protection	Within 3 mths	3 mths to 1 yr	1 yr to 5 yrs	>5 yrs
Corporate exposures	1 184 843	191 584	190 954	587 998	214 307
Retail exposures	784 725	265 416	112 456	232 788	174 065
Institutional exposures	139 143	20 502	3 600	91 778	23 263
Securitisation positions	3 936		1 011	1 521	1 404
Total IRB	**2 112 647**	**477 502**	**308 021**	**914 085**	**413 039**

Exposures calculated using the standardised approach, distributed by maturity intervals for the various exposure classes where exposures exist, 2012

SEK m	Exposures before credit risk protection	Within 3 mths	3 mths to 1 yr	1 yr to 5 yrs	>5 yrs
Sovereign and central banks	292 312	280 744	4 280	4 832	2 456
Municipalities	23 870	3 793	4 149	10 644	5 284
Multilateral development banks	673	0	0	673	0
Institutions	5 036	3 987	614	435	0
Corporate	40 047	14 665	6 161	14 401	4 820
Retail	12 797	2 194	2 402	4 250	3 951
Property mortgages	28 018	1 432	867	5 967	19 752
Total standardised	**402 753**	**306 815**	**18 473**	**41 202**	**36 263**
Total IRB + standardised	**2 515 400**	**784 317**	**326 494**	**955 287**	**449 302**

IRB-approved exposures broken down by maturity for various exposure classes, 2011

SEK m	Exposures before credit risk protection	Within 3 mths	3 mths to 1 yr	1 yr to 5 yrs	>5 yrs
Corporate exposures	1 158 380	206 530	217 028	475 161	259 661
Retail exposures	764 716	278 032	114 065	214 405	158 214
Institutional exposures	168 271	108 394	12 265	32 833	14 779
Securitisation positions	5 051	260	458	1 606	2 727
Total IRB	**2 096 418**	**593 216**	**343 816**	**724 005**	**435 381**

Exposures calculated using the standardised approach, distributed by maturity intervals for the various exposure classes where exposures exist, 2011

SEK m	Exposures before credit risk protection	Within 3 mths	3 mths to 1 yr	1 yr to 5 yrs	>5 yrs
Sovereign and central banks	410 897	398 440	6 011	5 756	690
Municipalities	23 059	3 548	2 475	12 897	4 139
Multilateral development banks	2 372	0	1 693	679	0
Institutions	5 529	3 459	1 386	594	90
Corporate	40 664	15 920	9 349	8 348	7 047
Retail	12 877	3 686	1 980	3 122	4 089
Property mortgages	19 052	871	657	3 271	14 253
Total standardised	**514 450**	**425 924**	**23 551**	**34 667**	**30 308**
Total IRB + standardised	**2 610 868**	**1 019 140**	**367 367**	**758 672**	**465 689**

Risk weight and breakdown into risk classes

The table below shows IRB-approved exposures broken down into risk classes where the counterparty's internal rating has been converted to risk class 1–9 and defaults. The same information is shown according to a geographical breakdown. Exposures within a risk class may have different PD values. The PD values in the tables are therefore expressed as exposure-weighted average PD. The breakdown is shown for corporate, institutional and retail exposures.

The PD values applied in calculating the capital requirement are based on the Bank's own loss history and actual defaults. Handelsbanken's low, stable 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 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 advanced approach. In the calculations for PD and LGD values, safety margins have been added. Comprehensive tests have also been performed to ensure that the risk measures are applicable to the Bank's current portfolios. An important consequence of this is that differences between 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. An important aspect 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 lending. Handelsbanken's choice is conservative since the capital requirement is higher for corporate exposures than for retail exposures. At the same time, lending to housing co-operative associations has lower risk than corporate lending on average. This means that the average risk weight for the corporate exposures category will be lower than for banks which have classified this as retail lending, although the risk weights in total will not be affected by the choice. Handelsbanken's conservative choice therefore leads to a low risk weight for both retail and corporate lending, seen only on the basis of these two categories, compared to other banks' risk weights. The differences are therefore due to the quality of the banks' credit portfolio, the institution's historical loan losses, whether the advanced approach is used and how various loans have been classified in the different exposure classes.

The Bank has very low exposures to counterparties in poorer risk classes. For corporate exposures, 95 (95) per cent of the EAD is in risk class 1–5 with low PD values. The corresponding figure for institutional exposures is 100 (100) per cent. For retail exposures – private individuals and small companies – the corresponding figures in the better risk classes are 97 (97) per cent and 83 (81) per cent, 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.

Distribution, risk class

IRB-approved corporate exposures broken down by risk class

	2012				2011			
	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accum. % of total EAD	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accum. % of total EAD
Risk class 1	0.03	90 215	9.55	9.55	0.03	90 842	9.90	9.90
Risk class 2	0.03	252 633	26.73	36.28	0.03	227 454	24.79	34.69
Risk class 3	0.11	338 603	35.83	72.11	0.12	323 244	35.24	69.92
Risk class 4	0.36	152 583	16.15	88.26	0.39	154 274	16.81	86.74
Risk class 5	0.85	67 574	7.15	95.41	0.77	72 949	7.95	94.69
Risk class 6	2.51	21 602	2.29	97.70	2.40	22 612	2.46	97.15
Risk class 7	8.15	10 736	1.14	98.84	5.29	17 039	1.86	99.01
Risk class 8	8.63	4 101	0.43	99.27	9.90	2 351	0.26	99.27
Risk class 9	22.38	595	0.06	99.33	26.82	1 321	0.14	99.41
Defaults	100.00	6 345	0.67	100.00	100.00	5 394	0.59	100.00
Total		**944 987**	**100.00**			**917 480**	**100.00**	
	Risk class 1–5	**901 608**			**Risk class 1–5**	**868 763**		
	Risk class 1–5	**95.41%**			**Risk class 1–5**	**94.69%**		

IRB-approved institutional exposures broken down by risk class

	2012				2011			
	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accum. % of total EAD	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accum. % of total EAD
Risk class 1	0.04	17 574	13.65	13.65	0.04	20 081	12.67	12.67
Risk class 2	0.07	77 261	60.01	73.66	0.07	93 468	58.95	71.62
Risk class 3	0.14	32 625	25.34	99.00	0.14	42 411	26.75	98.37
Risk class 4	0.50	680	0.53	99.53	0.51	2 091	1.32	99.69
Risk class 5	1.47	351	0.27	99.80	1.59	235	0.15	99.84
Risk class 6	2.47	66	0.05	99.85	2.60	131	0.08	99.92
Risk class 7	5.28	176	0.14	99.99	5.39	57	0.04	99.96
Risk class 8	7.42	10	0.01	100.00	7.08	54	0.03	99.99
Risk class 9	15.19	5	0.00	100.00	11.24	10	0.01	100.00
Defaults	100.00				100.00			
Total		**128 748**	**100.00**			**158 538**	**100.00**	
	Risk class 1–5	**128 491**			**Risk class 1–5**	**158 286**		
	Risk class 1–5	**99.80%**			**Risk class 1–5**	**99.84%**		

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

	2012				2011			
	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accum. % of total EAD	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accum. % of total EAD
Risk class 1	0.03	142 246	18.91	18.91	0.03	142 680	19.53	19.53
Risk class 2	0.07	267 797	35.61	54.52	0.07	278 028	38.05	57.58
Risk class 3	0.13	189 871	25.24	79.76	0.14	162 005	22.17	79.75
Risk class 4	0.40	113 906	15.14	94.90	0.38	106 023	14.51	94.26
Risk class 5	0.85	18 261	2.43	97.33	0.96	21 207	2.90	97.16
Risk class 6	3.72	6 626	0.88	98.21	3.89	10 293	1.41	98.57
Risk class 7	6.48	5 941	0.79	99.00	6.77	1 820	0.25	98.82
Risk class 8	18.02	3 979	0.53	99.53	11.23	5 309	0.73	99.55
Risk class 9	30.04	554	0.07	99.60	30.37	509	0.07	99.62
Defaults	100.00	2 995	0.40	100.00	100.00	2 795	0.38	100.00
Total		**752 176**	**100.00**			**730 669**	**100.00**	
	Risk class 1–5	**732 081**			**Risk class 1–5**	**709 943**		
	Risk class 1–5	**97.33%**			**Risk class 1–5**	**97.16%**		

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

	2012				2011			
	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accum. % of total EAD	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accum. % of total EAD
Risk class 1	0.03	115	0.40	0.40	0.03	99	0.33	0.33
Risk class 2	0.10	4 191	14.66	15.06	0.10	0	0.00	0.33
Risk class 3	0.26	4 867	17.02	32.08	0.22	5 403	18.13	18.46
Risk class 4	0.41	3 266	11.42	43.50	0.59	7 340	24.64	43.09
Risk class 5	1.08	11 195	39.15	82.65	1.19	11 243	37.74	80.82
Risk class 6	2.55	1 456	5.09	87.74	3.36	2 546	8.54	89.37
Risk class 7	5.76	1 697	5.93	93.67	6.60	1 527	5.12	94.49
Risk class 8	15.68	600	2.10	95.77	15.08	543	1.82	96.31
Risk class 9	23.13	291	1.02	96.79	23.35	198	0.66	96.98
Defaults	100.00	918	3.21	100.00	100.00	901	3.02	100.00
Total		**28 596**	**100.00**			**29 800**	**100.00**	
	Risk class 1–5	**23 634**			**Risk class 1–5**	**24 085**		
	Risk class 1–5	**82.65%**			**Risk class 1–5**	**80.82%**		

Distribution, risk class and country

IRB-approved corporate exposures, broken down by risk class and country 2012

	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accumulated % of total EAD	Exposure-weighted average LGD %	Sweden %	Norway %	Finland %	Denmark %	UK %	USA %	Other countries %
Risk class 1	0.03	90 215	9.55	9.55	30.72	9.48	7.82	16.38	22.14	3.24	34.13	
Risk class 2	0.03	252 633	26.73	36.28	26.72	29.50	22.86	33.11	12.79	20.25	26.70	
Risk class 3	0.11	338 603	35.83	72.11	29.74	35.45	38.43	25.05	19.18	43.86	23.00	
Risk class 4	0.36	152 583	16.15	88.26	33.64	13.96	19.81	9.84	27.19	21.26	14.32	
Risk class 5	0.85	67 574	7.15	95.41	33.72	7.45	6.00	11.63	7.26	6.61	1.21	
Risk class 6	2.51	21 602	2.29	97.70	36.88	2.38	2.44	1.38	2.32	2.34	0.44	
Risk class 7	8.15	10 736	1.14	98.84	39.54	0.98	1.68	0.79	1.26	1.53		
Risk class 8	8.63	4 101	0.43	99.27	41.35	0.46	0.31	0.79	0.80	0.13	0.20	
Risk class 9	22.38	595	0.06	99.33	35.53	0.07	0.05	0.09	0.07	0.03		
Defaults	100.00	6 345	0.67	100.00	38.57	0.27	0.60	0.94	6.99	0.75		
Total		**944 987**	**100.00**									
	Risk class 1–5	**901 608**										
	Risk class 1–5	**95.41%**										

Distribution, risk class and country, cont.

IRB-approved institutional exposures, broken down by risk class and country 2012

	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accumulated % of total EAD	Exposure-weighted average LGD %	Sweden %	Norway %	Finland %	Denmark %	UK %	USA %	Other countries %
Risk class 1	0.04	17 574	13.65	13.65	28.94	20.15	7.02	0.08	37.92	25.63	1.11	38.13
Risk class 2	0.07	77 261	60.01	73.66	10.62	48.63	13.25	13.23	52.73	51.25	76.23	55.73
Risk class 3	0.14	32 625	25.34	99.00	17.68	29.47	76.12	81.90	9.32	22.16	22.50	5.46
Risk class 4	0.50	680	0.53	99.53	36.83	0.72	2.06	4.76	0.03	0.89	0.16	0.43
Risk class 5	1.47	351	0.27	99.80	28.07	0.59	1.03	0.03		0.07		0.01
Risk class 6	2.47	66	0.05	99.85	45.00	0.10						0.24
Risk class 7	5.28	176	0.14	99.99	45.00	0.31	0.28					
Risk class 8	7.42	10	0.01	100.00	45.00	0.02						
Risk class 9	15.19	5	0.00	100.00	45.00	0.01	0.24					
Defaults	100.00											
Total		**128 748**	**100.00**									
	Risk class 1–5	**128 491**										
	Risk class 1–5	**99.80%**										

IRB-approved retail exposures, private individuals, broken down by risk class and country 2012

	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accumulated % of total EAD	Exposure-weighted average LGD %	Sweden %	Norway %	Finland %	Denmark %	UK %	USA %	Other countries %
Risk class 1	0.03	142 246	18.91	18.91	12.38	23.70						
Risk class 2	0.07	267 797	35.61	54.52	14.86	37.26	32.74	49.89				
Risk class 3	0.13	189 871	25.24	79.76	15.72	21.48	42.17		72.20			
Risk class 4	0.40	113 906	15.14	94.90	19.39	12.79	21.76	31.37	24.94			
Risk class 5	0.85	18 261	2.43	97.33	25.61	2.41		12.12				
Risk class 6	3.72	6 626	0.88	98.21	20.72	0.81	1.98	0.01				
Risk class 7	6.48	5 941	0.79	99.00	21.87	0.59	0.83	3.55	1.73			
Risk class 8	18.02	3 979	0.53	99.53	18.90	0.59		0.41				
Risk class 9	30.04	554	0.07	99.60	31.06	0.03	0.23	1.39	0.16			
Defaults	100.00	2 995	0.40	100.00	28.17	0.34	0.29	1.26	0.98			
Total		**752 176**	**100.00**									
	Risk class 1–5	**732 081**										
	Risk class 1–5	**97.33%**										

IRB-approved retail exposures, small companies, broken down by risk class and country 2012

	Exposure-weighted average PD %	EAD SEKm	Proportion EAD %	Accumulated % of total EAD	Exposure-weighted average LGD %	Sweden %	Norway %	Finland %	Denmark %	UK %	USA %	Other countries %
Risk class 1	0.03	115	0.40	0.40	27.99	0.50						
Risk class 2	0.10	4 191	14.66	15.06	28.71	18.47						
Risk class 3	0.26	4 867	17.02	32.08	32.00	15.77		40.00	23.41			
Risk class 4	0.41	3 266	11.42	43.50	32.56	13.39		15.91				
Risk class 5	1.08	11 195	39.15	82.65	34.87	33.74	90.87	24.22	62.32			
Risk class 6	2.55	1 456	5.09	87.74	31.68	5.91		10.29				
Risk class 7	5.76	1 697	5.93	93.67	33.01	6.89	3.75	3.39				
Risk class 8	15.68	600	2.10	95.77	33.43	2.30	4.23	1.28	9.38			
Risk class 9	23.13	291	1.02	96.79	56.00	0.02		0.01	4.89			
Defaults	100.00	918	3.21	100.00	53.98	3.01	1.15	4.90				
Total		**28 596**	**100.00**									
	Risk class 1–5	**23 634**										
	Risk class 1–5	**82.65%**										

Breakdown into risk classes IRB approach

Corporate exposures, foundation approach broken down by risk class

	2012					2011				
SEK m	EAD	Exposure-weighted average PD %	Exposure-weighted average LGD %	RWA	Average risk weighting	EAD	Exposure-weighted average PD %	Exposure-weighted average LGD %	RWA	Average risk weighting
Risk class 1	48 661	0.03	42	6 900	14.18	53 588	0.03	43	7 761	14.48
Risk class 2	87 200	0.04	39	13 263	15.21	86 670	0.04	43	14 765	17.04
Risk class 3	129 618	0.17	38	45 668	35.23	132 551	0.15	42	48 858	36.86
Risk class 4	57 402	0.57	44	42 896	74.73	65 099	0.55	44	48 367	74.30
Risk class 5	24 038	1.03	43	22 533	93.74	22 701	0.73	43	18 365	80.90
Risk class 6	8 562	3.35	43	11 247	131.35	9 774	3.08	43	12 542	128.32
Risk class 7	3 310	5.56	44	5 155	155.76	7 921	3.98	45	11 422	144.21
Risk class 8	2 504	6.52	44	4 119	164.49	431	7.23	39	648	150.56
Risk class 9	40	23.16	40	77	192.19	314	26.09	32	518	165.17
Defaults	2 999	100.00	45	0	0.00	1 752	100.00	45	0	0.00
Total	**364 334**			**151 858**		**380 801**			**163 246**	

Corporate exposures, IRB advanced approach broken down by risk class

	2012					2011				
SEK m	EAD	Exposure-weighted average PD %	Exposure-weighted average LGD %	RWA	Average risk weighting	EAD	Exposure-weighted average PD %	Exposure-weighted average LGD %	RWA	Average risk weighting
Risk class 1	41 554	0.03	17	2 697	6.49	37 253	0.03	16	2 469	6.63
Risk class 2	165 433	0.03	20	12 733	7.70	140 784	0.03	22	12 181	8.65
Risk class 3	208 985	0.08	25	33 040	15.81	190 694	0.09	26	37 238	19.53
Risk class 4	95 181	0.24	28	30 285	31.82	89 175	0.27	27	30 644	34.36
Risk class 5	43 536	0.76	28	23 176	53.23	50 247	0.79	27	26 582	52.90
Risk class 6	13 040	1.95	33	10 426	79.96	12 838	1.73	33	9 944	77.46
Risk class 7	7 426	9.31	38	10 553	142.11	9 118	6.43	35	10 872	119.23
Risk class 8	1 597	11.94	38	2 594	162.38	1 921	10.50	35	2 728	142.06
Risk class 9	555	22.32	35	939	169.11	1 007	27.05	34	1 796	178.33
Defaults	3 346	100.00	33	9 524	284.58	3 642	100.00	36	8 912	244.69
Total	**580 653**			**135 967**		**536 679**			**143 366**	

Development of risk-weighted assets in 2012

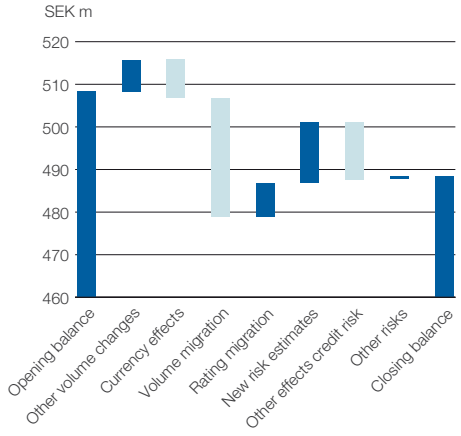
In 2012, the Bank's risk-weighted assets decreased by about SEK 20 billion or approximately 4 per cent. This is a slightly smaller change compared with the previous year when risk-weighted assets went down by some SEK 24 billion.

The changes in 2012 are almost entirely for credit and counterparty risk. Increased exposure volumes, excluding foreign exchange effects, have increased the risk-weighted assets during the year. However, the foreign exchange effects have reduced the exposure volumes more than the underlying increase, which means that the change in exposure volumes, including foreign exchange effects, has resulted in slightly lower risk-weighted assets. The foreign exchange effect is due to the risk-weighted assets changing in Swedish kronor terms as a result of the krona rate changing against the foreign currencies which the credit portfolio is partly comprised of. The largest decrease in risk-weighted assets during the year is the result of decreased volumes for exposures with a high risk weight, while volumes have risen for exposures with a low risk weight. In other words, new business have been with counterparties in better risk classes and better collateral than the average of the Bank's existing credit portfolio which is known as volume migration. But the effect of counterparties migrating between risk classes – rating migration – has led to increased risk-weighted assets. Net migration, measured as the volume of exposures to customers migrating to better risk classes compared with those that migrate to poorer classes, was negative during the year with most of this effect arising during the last three months of the year. However, the effect of the volume migration was larger than the effect of the rating migration, which meant that the total risk-weighted assets, from volume and rating migration, have gone down by almost SEK 20 billion. The new risk estimates that were the result of the year's validations of the outcome for 2011 increased the risk-weighted assets. The item Other effects credit risk includes factors such as increased used of collateral, the effects of defaults and changed LTVs in the existing credit portfolio. In net terms, these factors have contributed to a lowering of risk-weighted volume.

In 2012, no additional portfolios have been approved for reporting according to the advanced approach, but within existing portfolios there have been changes. This is mainly because business volumes have increased in the portfolios reported according to the advanced approach, while business volumes reported according to the foundation approach have fallen. The effect of this is included in the category Volume migration in the table on the left.

During the year, other risks, market risk and operational risk have increased the risk-weighted assets somewhat. The risk-weighted assets for operational risk have increased since the previous year, due to higher operating income, while risk-weighted assets for market risk have gone down marginally during the year.

Development of risk-weighted assets 2012



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 migration (number migration).

The Bank's corporate counterparties are given an internal rating which is split into two dimensions. The first refers to the risk of financial strain and the second to the counterparty's financial resistance to such strain. The rating is converted to an internal risk class for application of the IRB model.

For private individuals, in addition to the internal rating, other factors are included when setting the risk class for application of the IRB model. In this analysis of how the risk assessment changes for private individuals, only the internal rating is used. This grades the risk level in a dimension on a scale from very low risk to very high risk.

Handelsbanken's internal rating method is dynamic, which means that the rating is reassessed when there are signs that the counterparty's repayment capacity has changed to lower or higher risk.

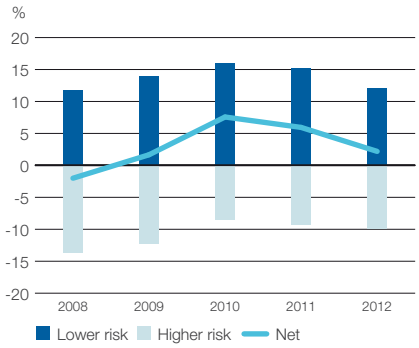
In the adjoining graphs, the proportion of counterparties migrating between risk classes is presented for corporate exposures and for small companies, which due to their size are included in the exposure class for retail exposures. The graphs refer to the years 2008 to 2012 and show that there was a positive net migration during the period for both corporate counterparties and small companies. In other words, the number of rating changes to lower risk exceeds the number of changes to higher risk. Thus, the number of risk class migrations in the portfolio shows a trend towards lower risk.

For corporate exposures, the gross migration is relatively stable between the years. Over time, net migration has continually moved towards lower risk.

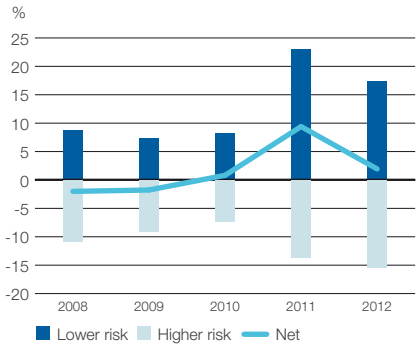
For small companies, net migration has similarly moved towards lower risk in 2012, although not at the same rate as in 2011. The activity level for updating ratings increased. One reason for the trend for small companies during 2011 was the higher activity level for updating the rating of small credit exposures. This was due to the stricter internal requirement for dynamic rating of these exposures. As of 2011, counterparties with a small credit exposure are also included in the requirement for an active confirmation of the current rating at least once a year, even if there is no reason for a dynamic change of the rating. In 2012, the positive migration became weaker while the activity level and degree of change remained at a higher level.

The adjoining graph presents the number of migrations based on the internal rating in terms of private individuals in the class for retail exposures. The major migration to increased risk in 2008 is due to the implementation of a new statistical model for annual rating updates. The underlying migration trend is stable over time with small changes in risk.

No. of migrations/internal risk class. Corporate exposures, 2008–2012



No. of migrations/internal risk class. Retail exposures – small companies, 2008–2012



Migration/internal rating. Retail exposures – private individuals, 2008–2012

COUNTERPARTY RISK

Counterparty risks arise when the Bank has entered into derivative contracts with a counterparty for instruments such as futures, swaps or options, or contracts regarding loans of securities. 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 – in the same way as for a loan.

In calculating both statutory and economic capital (EC), counterparty exposures are taken into account based on the exposure amounts stipulated by the capital adequacy regulations. These credit exposures are then treated in the same way as other credit exposures when calculating statutory capital and when calculating EC for credit risks. In addition to derivatives, the capital adequacy regulations treat both repurchase transactions and equity loans as counterparty risks. When calculating EC, these transaction types are treated in the same way. The Bank applies the mark to market method to calculate the exposure amount for counterparty risks for capital adequacy purposes.

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 netting agreements, which involve setting off positive values against negative values in all derivative transactions with the same counterparty. Handelsbanken's policy is to sign netting agreements with all bank counterparties. Netting agreements are supplemented with agreements for issuing collateral for the net exposure, which further reduces the credit risk.

The collateral for these transactions is mainly cash, but government securities are also used. Due to the high proportion of cash, the concentration risks in the collateral are limited. A limited 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 the Bank's rating from external parties being lowered. At year-end, a downgrading from AA- to A+ would have meant the Bank having to issue further collateral of SEK 144 million (153).

The Bank holds a portfolio of credit derivatives (credit default swaps) which are classed as trading book. The value of purchased protection is SEK 1.1 billion (1.7) and the value of sold protection is SEK 1 billion (1.2).

According to the Basel III regulations, a new capital requirement will be applied to counterparty risk exposures. This capital requirement is based on the risk of a change in value due to the counterparty's credit quality (credit valuation adjustment, CVA) in the counterparty risk exposures. According to current regulations, the banks hold capital for the default risk, but not for the valuation adjustment risk. Implementation of these rules in Sweden is expected to take place through the European implementation of the Basel III regulations, known as CRD IV. With the existing structure of the counterparty risks, an introduction of CVA risk would increase the capital requirement for counterparty risk by approximately SEK 1.4 billion. Handelsbanken will strive to reduce this effect through, for example, changes to contract structure and collateral as well as greater use of clearing.

PAYMENT RISK

Payment risks arise 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 check whether 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. Normally, the limit for the payment risk is approved at the same time as the credit 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 co-operation with the banks which are considered to be the strongest and the most creditworthy.

Handelsbanken also participates in clearing collaborations such as CLS (Continuous Linked Settlement) for currency trading. CLS is a global organisation which aims at securing currency exchange settlement by limiting the counterparty risk. Handelsbanken is one of approximately 60 owners which are the largest international FX banks. Handelsbanken is also a partner and direct member of EBA (Euro Banking Association) and its euro payment system.

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

SEK m	2012	2011
Positive gross market value for derivative contracts	108 872	140 312
Netting gains	78 450	102 723
Current set-off exposure	30 422	37 588
Collateral	11 843	14 384
Net credit exposure for derivatives	18 579	23 204

Counterparty risks in derivative contracts including potential future exposure 2012

SEK m	Current set-off exposure	Potential future exposure	Total credit exposure for derivatives/EAD	Risk-weighted amount	Capital requirement
Sovereign exposures	888	1 726	2 615	11	1
Institutional exposures	14 305	19 006	33 311	5 756	460
Corporate exposures	15 142	4 601	19 743	6 101	488
Other	87	43	130	43	3
Total	**30 422**	**25 376**	**55 799**	**11 911**	**952**

Counterparty risks in derivative contracts including potential future exposure 2011

SEK m	Current set-off exposure	Potential future exposure	Total credit exposure for derivatives/EAD	Risk-weighted amount	Capital requirement
Sovereign exposures	5 952	2 098	8 051	4	0
Institutional exposures	15 794	23 555	39 349	6 668	533
Corporate exposures	15 722	5 360	21 082	6 860	549
Other	120	126	245	184	15
Total	**37 588**	**31 139**	**68 727**	**13 716**	**1 097**

The importance of deposits as funding, international funding and asset encumbrance – Handelsbanken's view of three topical questions regarding banks' funding

Handelsbanken considers that a well-diversified funding base with long-term bond funding in Sweden and abroad to supplement deposits, is the best way to limit the Bank's liquidity risk. Balanced utilisation of covered bonds and low risk in the assets which are not encumbered means that the risk can be reduced for the Bank's senior lenders.

The international financial crisis of recent years has put the risk in banks' funding in the spotlight. In particular during 2007 and 2008, the first years of the crisis, it became clear that the short maturity for many banks' funding rendered them unable to survive without government support when investors lost confidence in their ability to survive. Since then, both banks and authorities have taken many measures to reinforce banks' ability to withstand a situation in which lenders risk withdrawing their financing. Funding has also increasingly come into focus for the investors who buy banks' shares and bonds. In the past few years, three questions have become topical and Handelsbanken will discuss its view of them here:

1. The importance of deposits as funding. Unlike many public authorities, rating agencies and other players, Handelsbanken does not consider that deposits are the best source of funding. The stability of the deposits is based on government guarantees rather than an assessment that banks are taking low risk. It is possible that the risk of sudden outflows is under-estimated and that this risk may increase in the future. With an increasingly internet-based banking system where money can be quickly moved, the risk of sudden outflows increases, not only if a bank has financial problems but also if competitors offer higher interest rates. Handelsbanken considers that a diversified borrowing base with a large component of long-term bond funding is the best way to minimise the Bank's liquidity risk.
2. Utilisation of international funding. The need for international funding is based on Swedish institutional investors increasingly wishing to invest in foreign assets and using Swedish banks for currency hedging of these investments. By borrowing abroad, Handelsbanken supports these investors and ensures that the Swedish economy has access to international capital, which is necessary in order to avoid a shortage of capital when Swedish savings are to a large degree invested in other countries' economies.
3. Asset encumbrance. When a bank pledges assets in order to safeguard its funding, there is a risk that the risk of loss will increase for non-secured lenders. The most important factor in assessing the risk of loss is the size and quality of the non-encumbered assets rather than the proportion of the Bank's assets which are encumbered.

After an initial, general description of Handelsbanken's view of its funding and how the liquidity risk is kept at a minimum, these three questions are discussed individually.

STARTING POINTS FOR HANDELSBANKEN'S FUNDING

One of the central functions of a bank is to manage its customers' requirement to have access to liquid funds so that they can make payments. Since banks accept liquid deposits and use these for non-liquid lending, a natural liquidity risk arises. The fundamental starting point for Handelsbanken's funding is to limit the liquidity risk as far as possible, while meeting customers' requirements to manage their liquidity and their payments as well as possible. The most obvious way to limit the liquidity risk is to match the maturity of the Bank's assets and liabilities. If five-year bond borrowing is used to fund five-year lending, the liquidity risk is completely eliminated. Here, bond funding has a clear advantage compared with traditional deposits, since deposit customers can withdraw their money and thus the maturity is not guaranteed. The base of Handelsbanken's funding is therefore customer-driven deposits supplemented with market-based long-term funding with the purpose of matching the non-liquid lending with funding sources which are stable even in a stressed market situation. In practice, individual assets are not funded separately; instead, the Bank looks at the whole balance sheet and how expected cash flows affect assets and liabilities. It must always be possible to match expected cash flows from the Bank with a somewhat larger expected cash flow going into the Bank. This enables a positive cash flow to be maintained, even in a stressed market situation. For a more detailed description of the liquidity risk management, see the section on liquidity risk on page 44.

When bonds mature, they must be refinanced if the Bank wishes to renew the lending which it has funded. To avoid the refinancing problem if the bond market is closed, the Bank maintains a large liquidity reserve which can be used in such situations. The most important factor in Handelsbanken's liquidity risk management is to ensure that the Bank's regular funding is not dependent on the commercial paper and bond markets being open. Handelsbanken's stress tests show that even in a stressed scenario, the liquidity reserves cover the Bank's liquidity requirement for over two years, even if access to new funding in the markets were to disappear.

Another central principle for Handelsbanken's funding is that it should be diversified in terms of the instruments, maturities, currencies and markets used. Through having diversified funding, the Bank avoids being dependent on specific sources of funding and ensures that it has as large access to potential funding as possible.

THE IMPORTANCE OF DEPOSITS AS FUNDING

Handelsbanken's deposits from customers in its regular operations cover approximately half of the Bank's lending. Most other banks, especially those outside the Nordic countries, have a significantly larger proportion of deposit funding. The low proportion in Sweden is partly explained by how the Swedish financial market and the Swedish welfare system have developed over a long period of time, where Swedish households save in deposit accounts to a lesser extent than households in other countries.

Deposit savings only make up about 18 per cent of households' total financial assets in Sweden. In the eurozone, the corresponding figure is twice as large: 36 per cent. The low proportion of deposit savings is primarily due to two factors that are partly linked. Firstly, Swedish households save extensively for their pensions and therefore have a long perspective on their savings; this benefits investments in assets that have an expected high return in the long term, such as equities and long-term bonds. Money is saved to a lesser extent directly in equities and bonds and instead above all through insurance companies and pension funds, and this form of saving has increased considerably since the reformation of the pension system at the end of the 1990s. While there is a major need to save for pensions, Swedish households have a comparatively minor need to keep large sums of money in deposit accounts as a buffer for unforeseen events, because the welfare system protects Swedish households well in case of unemployment or long-term illness, for example.

The other factor that is significant to the funding structure of Swedish banks is the tradition, which has existed for decades, of financing mortgages with bonds through special mortgage institutions. This means that today there is a large, developed market for covered bonds in Swedish kronor. The major advantage of a bond-funded housing market is that Swedish banks do not need to seek deposits in order to finance mortgage loans. This has coincided well with households' need to save with a long-term perspective for their pensions, since the insurance companies and pension funds are the dominant investors in Swedish banks' covered bonds. Thanks to sound government finances, the Swedish government has not increased its issues of government bonds, so issues of covered bonds have increased instead. This has been significant to the opportunities of Swedish institutional investors to invest in interest-bearing securities in Swedish kronor. At the end of the 1990s, the outstanding volume of mortgage bonds was 75 per cent of the outstanding volume of government bonds. Today, the corresponding figure is more than 150 per cent. The major significance of covered bonds to Swedish institutional investors is naturally also positive for the banks, because the demand for these bonds is very high – which has also been the case during financial crises.

But it is not only structural factors which underpin Handelsbanken's funding structure. Handelsbanken sees a number of advantages of using long-term bond loans as a complement to deposits. As discussed above, this is due to the Bank's efforts to achieve funding which minimises the Bank's liquidity risk. The advantage of bond borrowing is that the Bank, in contrast with deposit funding, knows for how long the money will be available and what the cost will be throughout the time to maturity. There is no liquidity risk during the maturity of the bond. Bond funding is also a necessary part of the aim to diversify the funding sources as far as possible. If only deposits are used, diversification is not achieved.

A special advantage of Handelsbanken's bond funding is that the Bank has its domestic market for covered bonds as a basis for its funding. This market has demonstrated a high degree of stability, which is natural due to its significance for the Swedish financial system. Covered bonds account for almost half of the outstanding volume on the Swedish bond market and all the major institutional investors have large exposures in this market. The market stability also prevailed during the crisis of the 1990s and 2008 and 2009, which were problem years for the Swedish banking market. Handelsbanken was able to issue in the market continually during those years.

Handelsbanken also considers that the view of deposits as a stable source of funding in all situations is misleading and in many respects risky. Deposits can normally be withdrawn immediately, which means that banks that encounter financial problems rapidly risk losing their financing in what is known as a bank run. The fact that deposits are nonetheless still regarded as a stable source of funding is mainly due to the behaviour observed among deposit customers in the majority of bank crises in recent years where they have only withdrawn their deposit savings to a limited extent. In many cases, deposits have proved to be a stable source for banks' funding even in difficult times, the main reason probably being that they are often covered by deposit guarantee schemes. There are a number of reasons, however, why this behaviour may change and the liquidity risk in deposits may increase:

- When entire banking systems encounter problems, it is probable that depositors expect the banking system to receive support. It may be difficult to find other banks to transfer deposits to if all banks are affected by the problems to a greater or lesser extent. The crises of recent years have largely consisted of system problems of this type. If, instead, only one bank is affected, deposits may well become more volatile.
- As banking transactions are becoming increasingly internet-based, it is easier to transfer money from one bank to another. When it becomes easier to move money, depositors may conceivably act more rapidly and more drastically in the future, even on the basis of rather unfounded rumours of bank problems spread via social media, for example.
- There may be other reasons why depositors suddenly move their deposits than seeing a high risk in a bank. For instance, they may receive a more attractive offer from a different bank, or they may wish their savings to be used for a specific ethical purpose. The online possibilities of quickly opening accounts and transferring money between banks create the risk of a general increase in the volatility of deposits.
- It is also important to note that large parts of corporate deposits are already very price-sensitive and volatile, which means that they are less suitable as a source of funding for the banks' long-term lending. This mainly applies to deposits from large companies for large sums of money, where the investment is made as an alternative to other financial investments. For smaller companies, deposits are often part of cash management and the sums of money are smaller, so they are often covered by the deposit guarantee scheme. This means that the relationship-based deposits from smaller companies are stable in the same way as household deposits, and it is therefore important to regard deposits from different types of corporate customers in different ways.

Against this background, Handelsbanken's assessment is that increased funding by means of deposits is not a long-term method of reducing possible liquidity risks. It can be discussed whether it is possible to increase the supply of deposit funding in Sweden to any significant extent. Since Swedish households focus on saving in pensions, the long-term return is in focus, and in the current low interest rate environment short-term interest savings are not particularly attractive. An analysis of how the supply of deposits varies according to the interest rate situation shows that the relation between interest rates and growth in deposits is weak and that major changes in interest rates are required for the supply to be affected. Interest rate changes of this type are only possible by means of the Riksbank's interest rate decisions. Changes in banks' margins on deposit rates cannot achieve this. It is also likely that the potential expansion of the deposit base would mainly be unstable, since it would probably come from investors with more active behaviour who are more likely to withdraw the funds rapidly if creditworthiness, interest rates or other conditions were to change.

One aspect of deposit funding is that its stability as a source of financing is largely based on the fact that it is guaranteed by the government through the deposit guarantee scheme. When the depositors have the government as their guarantor they do not need to take account of the risk in the investment, because the government bears the risk if the bank goes under. The deposit guarantee scheme has been broadened in recent years, in terms of the guarantee

maximum amount and the companies covered, so the government bears an increasingly large risk of problems among the guaranteed companies. As the depositors do not need to take account of the risk at the bank due to the guarantee, the monitoring function that a financier normally has over the borrower disappears. This market disciplinary effect exists in the bond market in a totally different way. Since the government takes on a higher risk through guarantees for deposits, and the market disciplinary effect disappears, it is remarkable that governments and supervisory authorities also often recommend increased deposit funding. There are several historical examples of crises (such as the US Savings & Loans crisis) that were caused by competition for government-guaranteed deposits forcing an increase in deposit rates. As a result, the banks had to increase the risk in their assets to receive sufficient return. This ultimately led to the banks that had taken the largest risks going under, and the government having to foot the bill due to the deposit guarantee scheme. The government should therefore also be interested in seeing balanced use of deposit funding.

To sum up, the Bank sees a number of advantages of not just prioritising deposits as a source of funding. A diversified funding base creates an opportunity to minimise funding costs and reduces dependency on individual products or markets. Provided that the alternative funding is primarily long term, and cash flows into and out of the Bank are matched, the bond funding means that the liquidity risk in the Bank is significantly lower than with deposit funding alone.

INTERNATIONAL FUNDING

The discussion about Swedish banks' funding often presents the funding as something which is independent of how other players in the economy behave. The most important factor underlying the banks' funding structure is, however, their preferences and the needs of Swedish investors. The previous section discussed how these factors affect access to funding through deposits. There are similar aspects in terms of the requirement for international funding. Of course, the supply of funding in the economy depends on how much savings are available. In an economy which is not open to foreign countries, the supply of funding is totally dependent on domestic savings. But in a small, open economy such as the Swedish economy, interaction with other countries is very important. For various reasons, Swedish households, companies and institutional investors wish to invest their capital abroad and not only in Sweden. And conversely, there is reason to try and obtain capital from outside Sweden so that a shortage of capital does not limit the conditions for domestic investments. The interaction between savers' behaviour and the players who supply capital – these mainly being the banks in Sweden – is therefore fundamental in order to understand the conditions for the need of international funding.

Swedish households' savings are mainly channelled through various types of intermediaries, such as banks, life insurance companies and mutual funds. Banks primarily accept deposits which are converted to lending, while life insurance companies and mutual funds mainly invest in shares, bonds and other securities. Another important player in the Swedish capital market is the national pension funds (AP funds), which manage public savings for the pension system.

As previously discussed, Swedish savings focus to a large extent on pensions. With pension-oriented savings, it is natural that a considerable part of the savings is invested abroad in order to achieve diversification and maximise the long term return. In total, foreign assets comprise around 44 per cent of Swedish institutional investors' assets. The proportion of foreign assets has increased considerably since the pension system was reformed. In the mid-1990s the corresponding proportion was only 10 per cent. Another important change in the past 15 years is that the government's borrowing requirement has decreased significantly and, consequently, the supply of government bonds. The Swedish bond market has become more concentrated to the banking sector. Of the total volume of Swedish kronor bonds, banks and mortgage institutions represent 60 per cent, the government 30 per cent and other issuers just over 10 per cent. Taking into account the needs of investors to diversify and to invest a certain percentage in assets with government risk, the increase in investments in foreign bonds is only natural.

When Swedish savings are invested abroad, foreign capital also needs to be brought in to meet the financing needs of the Swedish real economy (households and companies). The difference between the lending that Swedish banks contribute to the Swedish real economy and the Swedish kronor capital that is available as deposits and issued bonds amounts to about SEK 1,500 billion, which corresponds to about 60 per cent of the total volume of foreign assets held by institutional investors. Swedish banks need to cover this difference with foreign borrowing. About half of Swedish banks' bond financing is denominated in foreign currency. This proportion has not changed significantly over the past ten years. However, a significant change occurred in the late 1990s, when the percentage increased from about 25 per cent in 1997 to 50 per cent in 2002.

Some institutional investors, primarily life insurance companies and the national pension funds, have regulatory constraints on how large a percentage of assets may be invested abroad. Even without quantitative rules, they may still find reason to restrict currency risk in foreign investments. The national pension funds and life insurance companies manage their currency risk by entering into derivative contracts with a bank, in which the position in the foreign currency is swapped against Swedish kronor. These swaps usually have a maturity of three months and are provided by a Swedish bank. The swap actually means that the investor lends Swedish kronor to the bank for three months at the same time that the bank lends the equivalent amount in foreign currency to the investor for three months. The bank usually finances the swap via short-term borrowing in the foreign currency for an equivalent maturity. For the bank this process usually means that the borrowed foreign currency is converted into a loan denominated in Swedish kronor. Consequently, the bank does not undertake any liquidity risk in the foreign currency. The volume of foreign financing that Swedish banks engage in for this purpose is substantial. No detailed statistics are available, but a summary from the annual report of the positions held by the six largest institutional investors at the end of 2011 shows that the aggregate currency hedging of these institutions amounts to almost SEK 600 billion. A substantial portion of Handelsbanken's short-term foreign borrowing, mainly in US dollars, can be explained by these transactions.

Thus against the backdrop of the actions of Swedish institutional investors, Swedish banks have a natural need to borrow abroad. Does this need entail an increase in liquidity risk for the Bank? The reason generally put forth that this should be the case is that foreign investors have a greater tendency to stop financing if the creditworthiness of the Swedish banks is questioned. Handelsbanken believes that even if such a risk exists, the key question is in what respect the Bank takes liquidity risk in the foreign currency, rather than the amount of foreign financing.

For Handelsbanken it is crucial to differentiate between short-term and long-term foreign borrowing. The major problem arises if the Bank finances illiquid assets in the foreign currency with short-term borrowing in foreign currency. If this foreign financing were withdrawn, the Bank would risk a liquidity shortage in the foreign currency. This risk caused the Riksbank to recently increase its foreign reserves, to ensure preparedness for liquidity support to Swedish banks in foreign currency. For Handelsbanken, it is crucial that short-term foreign borrowing is only used to fund liquid assets in the same currency or to fund short-term Swedish assets. If the foreign financing were withdrawn for any reason, the Bank could use the liquidity reserve, realise liquid assets or increase financing denominated in Swedish kronor. And as was previously mentioned, the portion of short-term borrowings related to financing currency hedging for Swedish institutional investors does not entail any liquidity risk for the Bank. If currency hedging were impossible on a particular occasion, the institution would have a surplus of Swedish kronor, which would need

to be invested in some form. Since assets and liabilities denominated in Swedish kronor are a closed system, these funds would be invested somewhere in the Swedish financial system. The supply of Swedish kronor would thus increase in this situation.

Handelsbanken cannot see any way that long-term borrowing in foreign currency could be associated with increased liquidity risk for the Bank. As discussed above, according to the Bank, long-term borrowing is the best way to fund illiquid assets as lending. Some refinancing risk exists because long-term bonds also have to be refinanced, but as discussed above, this is limited by the matching between lending and borrowing, by the fact that the Bank holds considerable liquidity reserves and by a balanced maturity profile in the Bank's bond borrowing. The reserves enable the Bank to refrain from all market borrowing for a long period of time. Moreover, it should be preferable for the Bank to avoid overusing the Swedish market when foreign financing is available. By not overusing Swedish market borrowing, the Bank would have more scope to increase issues if a crisis were to arise and foreign markets become more difficult to access.

Thus, the way that Handelsbanken uses foreign financing leads to the conclusion that liquidity risk does not increase. On the contrary, it is an important tool in reducing the liquidity risk and contributes greatly to diversified borrowing with well-controlled liquidity risk.

Given that the potential liquidity risk associated with foreign financing can be well-managed, from Handelsbanken's perspective it is remarkable that the great socioeconomic benefits of Swedish banks bringing foreign capital to Sweden is not emphasised in the debate about foreign financing. The imbalance between Swedish investors' demand for investments in Swedish banks and the banks' need to finance lending to Swedish industries results in a shortage of domestic financing of the order of SEK 1,500 billion to achieve a balance between supply and demand for Swedish financing. Since Swedish banks borrow this money abroad and grant loans to Swedish households and companies, these Swedish banks add a large volume of foreign capital to the Swedish real economy. As a comparison, this amount is about equal to the value of foreign ownership on the Stockholm Stock Exchange, amounting to 60 per cent of the stock of foreign direct investments in Sweden.

Tremendous socioeconomic benefits are associated with investors in an economy having access to capital for their investments, since investment activity is one of the primary driving forces behind economic growth. Most governments, and the Swedish government is no exception, devote considerable resources to attracting foreign capital and removing obstacles for its inflow to the domestic economy. With this in mind, it is remarkable that several public sector representatives in Sweden consider it to be negative that banks bring foreign capital to Sweden. If the authorities were to limit banks' foreign borrowing, or make it more expensive through fees, it would mean they were trying to limit the addition of foreign capital to Sweden. Meanwhile, there are no limits – and for good reason – on moving Swedish savings abroad. The result would be a distortion in which the opportunities to bring foreign capital to the Swedish economy would be made difficult, compared with the conditions for Swedish capital to support growth in foreign economies.

Sweden is a small, open economy with its own currency, which has benefited in many ways from internationalisation, the growth of free trade and the free flow of capital across borders. These trends have helped to make Sweden one of the world's best performing economies, which has managed very well in the current turbulent phase of the global economy. It would be a pity to impair the conditions for this by curbing Swedish banks' financing abroad.

ASSET ENCUMBRANCE

During the recent financial crisis, central banks all over Europe have provided liquidity to a large number of banks. At no time during the financial crisis has Handelsbanken used these facilities. In late 2011 and early 2012, the ECB provided European banks with 3-year loans through the LTRO facilities, with a total volume of EUR 1,000 billion. Banks that use these different types of central bank financing must provide assets, such as government bonds, as collateral. The percentage of encumbered assets on the balance sheets of these banks has therefore risen sharply over the past year. As a result of this increase, authorities, investors, rating agencies and banks have been discussing the view of and consequences associated with encumbered assets. The collateral portfolio for unsecured lenders, including depositors, is eroding as more and more assets are mortgaged to benefit other lenders. This process is called subordination or asset encumbrance.

The debate has also addressed mortgages in "cover pools" for covered bonds. This type of mortgage is not new, but is essential for the market for covered bonds, which has been performing well for a long period of time, with mortgages as collateral in Sweden as well as in many other countries. In Sweden, AAA-rated covered bonds have become one of the most important asset classes for most pension managers and other institutional investors as the supply of Swedish government bonds has dwindled.

Both investors and regulatory authorities are now demanding greater transparency with respect to the banks' asset encumbrance, along with clarification of how the banks view the subordination issue. However, the situation is complicated because the central banks have not published bank-specific data regarding utilisation of their liquidity facilities. Consequently, important information is missing about the size of the assets the banks pledged to central banks.

As was previously mentioned, Handelsbanken uses covered bonds to finance portions of its mortgage loan portfolio. However, for some time the Bank has followed a strategy of balancing the use of covered bonds with unsecured senior bonds. By doing so, the Bank would never end up in a position in which its unsecured lenders feel they are too subordinated to the secured lenders. The Bank has consistently applied this strategy during the recent financial crisis and has also to a large extent regularly issued senior bonds.

At no time during the entire financial crisis has Handelsbanken ever participated in any type of central bank funding. Consequently, the Bank does not have any assets encumbered in central banks other than the small volume that the Bank is forced to keep available for the Riksbank's clearing.

Another area in which asset encumbrance is relevant is derivatives transactions. When entering into a derivative agreement, no encumbered assets are linked to the agreement according to the present rules. However, as the value of the underlying assets changes, it is common for banks to receive collateral or be required to provide collateral to their counterparties. Handelsbanken has a restrictive view of derivative transactions and "mutual collateral agreements" and therefore has very limited volume of encumbered assets to the Bank's counterparties.

The general debate has included a variety of views regarding how to assess the asset encumbrance situation and which key indicators are appropriate. It is not the volume of encumbered assets which is of interest but rather the relevant information for evaluating the degree of subordination, which mainly involves:

- The volume of non-encumbered assets in relation to total unsecured debt.
- The quality of these assets with respect to risk class and liquidity.

Based on this information, it can easily be seen which non-encumbered assets are available for unsecured lenders.

Market risk

Handelsbanken's policy is 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 through the Bank's funding.

Market risks arise from price and volatility changes in the financial markets. Market risks are divided into interest rate risks, equity price risks, exchange rate risks and commodity price risks.

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. During the past few years, the Bank has worked actively to reduce the market risks in its balance sheet. One result of this is that a much smaller part of the earnings come from net gains/losses on financial items at fair value.

At a universal bank like Handelsbanken, market risks arise when the Bank's customers demand services where 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 and the funding can also have a different maturity than the assets which are to be funded. Central Treasury also manages a liquidity portfolio that can be converted into liquidity at short notice in conjunction with possible disruptions in the markets where the Bank conducts its operations. The portfolio also 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 commodities markets. To meet this demand, it may be necessary for the Bank to have certain holdings. This situation arises for example when the Bank has undertaken to set market prices in its function as a market maker. Finally, the Bank has major business flows, making it reasonable for it to take advantage of possible economies of scale.

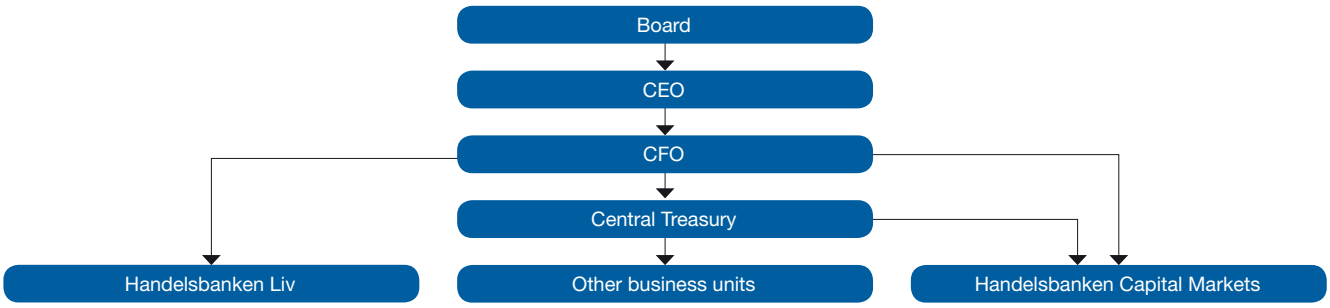
The Bank's limit system restricts the size of an exposure to the market. The measuring methods and limits for market risks are established by the Board. The limits for interest rate, currency and liquidity risk are allocated by the Group Chief Executive and the CFO to the Head of Central Treasury, who in turn allocates these to the business-operating units. The Head of Central Treasury has overall responsibility for managing interest rate, currency and liquidity risks. The Group Chief Executive and the CFO also decide on supplementary risk measures, limits and detailed guidelines. The supplementary limit measures aim to reduce total sensitivity to volatility changes in the financial markets and the liquidity risk per currency. These measures also limit the risks from a maturity perspective. The CFO, Group Chief Executive and Board continually receive reports on the market risks and utilisation of the limits.

Market risks in the Bank's business operations mainly arise at Central Treasury, Handelsbanken Capital Markets and Handelsbanken Liv, and are managed there. The market risks at the insurance company, Handelsbanken Liv, are described in a separate section. Consequently, the information on market risks given in this section refers to risks excluding Handelsbanken Liv.

Risk measurement

Market risk is measured in several ways in the Group. Various sensitivity measures are used, showing the changes in value arising from pre-defined changes in prices and volatilities. Position-related risk measures and probability-based Value at Risk models (VaR) are also used. VaR 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. The VaR 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.

Decision levels and monitoring of market risk



VaR for trading book, Handelsbanken Capital Markets and Central Treasury

	Total		Equities		Fixed income		Currency		Commodities	
SEK m	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011
Average	15	22	2	4	15	23	3	5	1	2
Maximum	26	47	5	11	31	46	8	12	7	5
Minimum	7	8	0	2	8	8	1	1	0	1
Year-end	11	16	2	2	11	12	4	4	1	3

Risk at Handelsbanken measured as VaR

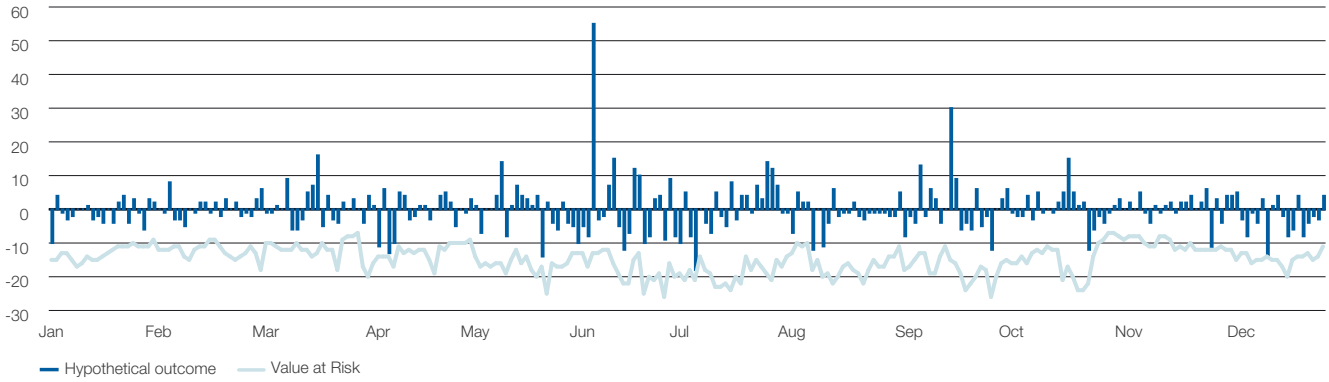
For the portfolios classified as the trading book at Handelsbanken Capital Markets and Central Treasury, VaR is calculated for the individual risk classes and at portfolio level with a 99 per cent confidence level and a one-day holding period.

Since VaR is based on model assumptions, it is important to continually verify the effectiveness of the model. For that reason VaR is regularly evaluated using back testing. These tests verify the number of days when the loss exceeded the estimated VaR. Back testing is performed on both the actual outcome and on the hypothetical outcome. The latter measures the outcome if the portfolio had been unchanged during the holding period.

A VaR model with a 99 per cent confidence level implies that the outcome will be worse than measured VaR on two to three occasions every year. If the number of observed occasions exceeds the expected number, there is a risk that the model underestimates the actual risk. On two occasions in 2012, the hypothetical outcome was worse than the VaR. This is in line with what a VaR model with a confidence level of 99 per cent implies.

The VaR model does not 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 during the period 1994–2012. The results of these stress tests are reported to the Group Chief Executive, CFO and the Board on a regular basis.

VaR and hypothetical outcome for trading book 2012, Handelsbanken Capital Markets and Central Treasury



Worst outcome in stress test for trading book, Handelsbanken Capital Markets and Central Treasury

SEK m	2012
Average	38
Maximum	70
Minimum	18
Year-end	28

INTEREST RATE RISK

Interest rate risk mainly arises at Handelsbanken Capital Markets, Central Treasury and in the lending operations.

In the latter, the interest rate risk arises as a result of the lending partly having longer maturities than the funding. In bond funding, the reverse may also apply, i.e. that the interest-fixing period on the bonds is longer than the interest-fixing period for the lending that the bonds are funding. Interest rate is mainly managed by means of interest rate swaps. In general, interest rate risk exposure is in markets which are characterised by good liquidity.

Interest rate risk is measured at the Bank in several ways. VaR and other risk measurements, supplemented by various stress scenarios, are used for Handelsbanken Capital Markets' portfolios and at Central Treasury. Yield curve twist risks – which are measured and followed up on a regular basis – show the development of the risks in the case of hypothetical changes in various yield curves. The non-linear interest rate risk, for example, part of the risk in interest rate options, 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.

For other units and for the aggregate interest rate risk in the Group, the interest rate risk is measured as the effect on fair value of a major instantaneous parallel shift of all interest rates. At year-end, the Bank's total interest rate risk in the case of a one percentage point parallel upward or downward shift in the yield curve, measured as the worst outcome, was SEK -701 million (-707). Most of this risk is a Swedish kronor risk which, together with other home market currencies and an interest rate risk in US dollars, accounts for 99 (98) per cent of the total interest rate risk. This risk measure includes both interest-bearing items at market value and not at market value, and it is therefore not appropriate to assess the effects on the balance sheet and income statement. The risk measure does not take into account the equity held by the Bank nor the Bank's opportunities to adapt to changed interest rate levels.

Specific interest rate risk is measured and limits set using sensitivity to changes in credit spreads. It is measured and limited on the basis of different rating classes and is calculated as a market value change for the worst outcome in the case of a parallel shift in the credit spreads of +/- one basis point, i.e. the difference between the interest on the current holding and the yield on a government bond with the same maturity. This is performed for each individual counterparty. The total specific interest rate risk at the year-end was approximately SEK 8 million (7).

Interest rate adjustment periods for the Group's assets and liabilities 2012

SEK m	Up to 3 mths	3–6 mths	6–12 mths	1–5 yrs	Over 5 yrs	Total
Assets						
Loans	1 169 895	72 208	98 827	315 171	24 378	1 680 479
Banks and other financial institutions	324 508	1 171	95	279	-	326 053
Bonds etc.	17 561	2 898	955	73 202	8 383	102 999
Total assets	**1 511 964**	**76 277**	**99 877**	**388 652**	**32 761**	**2 109 531**
Liabilities						
Deposits	662 987	4 199	3 154	3 208	8 676	682 224
Banks and other financial institutions	172 723	5 399	766	146	5 066	184 100
Issued securities	410 652	106 050	116 130	457 898	81 862	1 172 592
Other liabilities	-	98	316	193	3 176	3 783
Total liabilities	**1 246 362**	**115 746**	**120 366**	**461 445**	**98 780**	**2 042 699**
Off-balance-sheet items	-207 011	-22 769	23 115	157 104	50 390	829
Difference between assets and liabilities including off-balance-sheet items	58 591	-62 238	2 626	84 311	-15 629	67 661

The table shows the interest rate adjustment periods for the Group's interest-rate related assets and liabilities as at 31 December 2012, reported by the trade date. Non-interest-bearing assets and liabilities have been excluded.

Interest rate adjustment periods for the Group's assets and liabilities 2011

SEK m	Up to 3 mths	3–6 mths	6–12 mths	1–5 yrs	Over 5 yrs	Total
Assets						
Loans	1 139 004	68 984	64 711	288 507	29 990	1 591 196
Banks and other financial institutions	480 062	1 860	552	328	-	482 802
Bonds etc.	25 845	6 586	3 613	27 730	19 030	82 804
Total assets	**1 644 911**	**77 430**	**68 876**	**316 565**	**49 020**	**2 156 802**
Liabilities						
Deposits	717 601	3 673	1 957	1 648	8	724 887
Banks and other financial institutions	191 572	3 787	1 799	122	5 126	202 406
Issued securities	548 250	33 428	106 495	434 992	52 227	1 175 392
Other liabilities	198	1 689	176	13 937	1 383	17 383
Total liabilities	**1 457 621**	**42 577**	**110 427**	**450 699**	**58 744**	**2 120 068**
Off-balance-sheet items	-149 235	-29 084	28 393	179 827	3 807	33 708
Difference between assets and liabilities including off-balance-sheet items	38 055	5 769	-13 158	45 693	-5 917	70 442

The table shows the interest rate adjustment periods for the Group's interest-rate related assets and liabilities as at 31 December 2011, reported by the trade date. Non-interest-bearing assets and liabilities have been excluded.

EQUITY PRICE RISK

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

Equity price risk in the trading book

The equity price risk at Handelsbanken Capital Markets arises in customer-generated equity-related transactions. 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 included in the structured products. The extent of own position-taking, which arises to meet customers' needs, is restricted by the limits set by the Bank's Board. 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. The supplementary risk measures include dividend risk, event risk and sensitivity to general volatility changes on the equity market.

Equity price risk outside the trading book

The majority of the Group's shareholdings – 96 per cent – comprises shares listed on an active market valued at market price. Unlisted shares are measured at fair value using valuation models. The choice of model is determined by what is deemed appropriate for each individual share. For unlisted shares where the company agreement regulates the price at which the shares can be divested, the holdings are valued at a divestment price determined in advance. For example, there are cases where the shareholders' meeting decides the value at which the transfer will be made.

The table below shows the risk in the Bank's total equity positions in the case of hypothetical changes in underlying prices and volatilities at year-end.

EXCHANGE RATE RISK

The Bank has home markets outside Sweden and operations in several other countries. Indirect currency exposure of a structural nature therefore 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 stated in note G41 on page 130.

The Bank's direct foreign exchange exposure arises as a consequence of customer-driven intra-day trading in the international foreign exchange markets. Trading is conducted at Handelsbanken Capital Markets. The Board has set VaR limits for exchange rate risk. At year-end, VaR was SEK 2 million (3). Some foreign exchange exposure also arises in the normal banking operations as part of managing customer payment flows and in funding operations at Central Treasury. The Board has allocated position limits for these exposures. At year-end, the aggregate net position amounted to SEK 293 million (198). The exchange rate risk in the Bank does not thus 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 was SEK -18 million (-44), measured as the impact on the Bank's earnings of an instantaneous 5 per cent change of the Swedish krona. The sensitivity to a change of the krona against any individual currency did not exceed the total exchange rate risk.

COMMODITY PRICE RISK

Exposure in commodity-related instruments occurs as a result of customer-based trading in the international commodity markets. The commodity price risk is only a small part of the Bank's total market risk. Trading in commodities is conducted exclusively at Handelsbanken Capital Markets. Commodity risk, both linear and non-linear, is measured as the absolute total of risk for all commodities to which the Bank is exposed. At the year-end, the commodity price risk was SEK -20 million (-26), measured as the maximum loss on price changes of 20 per cent in underlying commodities and a 35 per cent change in volatility.

Exchange rate sensitivity
(worst outcome +/- 5% change SEK against the respective currency)

SEK m	2012	2011
DKK	0	0
EUR	-8	-14
GBP	-3	-9
NOK	-8	-5
USD	-9	-9
Other currencies	-24	-7

Equity exposures outside the trading book

SEK m	2012	2011
Classified as available for sale	5 205	4 343
of which listed	*4 176*	*3 388*
of which unlisted	*1 029*	*955*
Classified as available for sale	5 205	4 343
of which business-related	*546*	*565*
of which other holdings	*4 659*	*3 778*
Fair value reserve at beginning of year	134	1 242
Unrealised market value change value during the year for remaining and new holdings	661	-1 192
Realised due to sale and settlements during the period	1	84
Fair value reserve at end of year	796	134
Included in tier 2 capital	797	133

Equity price risk
SEK m

	Change in volatility					
	2012			2011		
Change in equity price	-25%	0%	25%	-25%	0%	25%
10%	514	511	507	442	442	444
-10%	-525	-518	-509	-451	-429	-411

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. In the past year, Handelsbanken has continued to expand its funding programmes, issued both covered and senior bonds, broadened its investor base and expanded its liquidity reserve. This enables operations to be main-tained in circumstances that are much more difficult than those which have existed in the past few years.

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.

Funding strategy

Handelsbanken has a low tolerance of liquidity risks and works actively to minimise them in total and in all currencies. The ambition is that this will provide good access to liquidity, a low level of variation in earnings 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 of importance to the Bank and by maintaining good liquidity reserves. This ensures that the Bank can keep its core business intact for a very 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 in Stadshypotek, senior bonds issued by Handelsbanken, deposits from households and 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. The main point, however, is that illiquid assets are not funded with short-term liabilities. Remaining parts of the balance sheet comprise liquid assets and liabilities that are shorter term. The short-term market funding and deposits from financial institutions finance liquid assets and assets with shorter maturities. In addition, more short-term assets and liabilities arise via transactions that support customer-driven transactions, such as derivative and repo transactions with other banks.

The market has great confidence in Handelsbanken and its assessment is that Handelsbanken has a very low credit risk. One illustration of this is that the cost of insuring a credit risk on the Bank, which is known as the CDS spread, is one of the lowest of all among European banks, and Handelsbanken has the lowest funding cost among 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. In recent years, the Bank has considerably broadened its long-term international funding and has issued significant volumes of bonds in, for example, the eurozone, the UK, the US, Asia and Australia. 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. Central Treasury has a number of different funding programmes for market funding at its disposal, which in addition to the programmes reported in the table below contain 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 distribution.

An important part of sound liquidity management consists of maintaining significant volumes of unutilised collateral that can be used in the event of disruptions in the financial markets. The Bank therefore maintains significant volumes of non-encumbered assets that can be used as collateral when issuing covered bonds and securities with a high credit rating and liquidity. In addition to securing the Bank's liquidity, this also contributes to limiting the extent to which the Bank's senior lenders could be subordinated to lenders with collateral for their loans or who invest in covered bonds. The Bank therefore aims to achieve a sound balance between issuing non-covered bonds and covered bonds. Stadshypotek can issue in most currencies, and collateral pools are available in Sweden and Norway. The diversification creates cost efficiency in the funding, because the Bank has an opportunity of utilising the sources of funding that involve the lowest costs at that particular time.

Encumbered assets and cover pools

The adjoining table shows the Bank's assts split into encumbered assets and non-encumbered assets.

Most of the encumbered assets consist of Stadshypotek's cover pool, which comprises mortgage loans provided as collateral for outstanding covered bonds. The Bank also has voluntary OC (over-collateralisation – extra assets in addition to those which are needed to cover the issued bonds) of 10 per cent which is 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 (LTV) of the mortgage loans in the cover pool is of fundamental importance. The lower the LTV, the less the risk that more mortgage loans are required in the pool. Handelsbanken's average LTV in the Swedish pool is very low and was 47 per cent at the year-end. This shows that the pool can manage large falls in the price of underlying property assets before more mortgage loans must be added to the pool.

As presented in the section on Asset encumbrance on page 39 of the publication Pillar 3 2012, it is not primarily the volume of encumbered assets which is relevant when assessing the degree of subordination for the Bank's investors. The relevant factors are volume and the quality of the non-encumbered assets and to what extent these cover the non-secured debt.

Handelsbanken's very restrictive approach to risk-taking means that the non-encumbered assets are of very high quality. Since Handelsbanken wishes to have a balanced utilisation of covered bonds, there is a large volume of mortgage loans which are not encumbered. As shown in the table, other loans also have a very low risk measured in terms of the Bank's internal rating. The table shows that the volume of

Handelsbanken's 5-year CDS spread compared with ITRAXX Financial 2007–2012

Source: Ecowin, Bloomberg

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.

non-encumbered assets for Handelsbanken is 207 per cent of the outstanding volume of non-secured funding. The conclusion is therefore that Handelsbanken's use of covered bonds does not result in a level of encumbrance which jeopardises the security of non-secured lenders to the Bank.

Pricing 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 more short-term funding. This is because investors who purchase the Bank's long-term bonds, in addition to yield, also demand higher compensation for the maturity. This must be taken into account in the Bank's pricing, which ensures that the price which internal units in the Bank have to pay for

Funding programmes/limits as of 31 December 2012

Programme	Programme size	Currency	Unutillised amount, current programme	Countervalue SEK m
ECP[1]	5 000	EUR	2 080	17 892
ECP (Stadshypotek)[1]	4 000	EUR	2 421	20 825
French Certificates of Deposit	5 000	EUR	2 107	18 124
EMTCN (Stadshypotek)[1]	20 000	EUR	7 060	60 728
MTN[1]	100 000	SEK	69 794	69 794
Swedish Commercial Paper	25 000	SEK	21 930	21 930
Swedish Commercial Paper (Stadshypotek)	90 000	SEK	87 070	87 070
EMTN[1]	50 000	USD	28 134	182 969
Other funding > 1 yr[1]	15 000	USD	12 960	84 285
USCP	15 000	USD	6 645	43 216
Extendible Notes	15 000	USD	14 230	92 545
US 144A / 3(a)(2)	15 000	USD	9 650	62 759
Stadshypotek US 144A	15 000	USD	11 900	77 392
Stadshypotek AUD Covered Bond Programme	5 000	AUD	4 250	28 688
Total				**868 217**

Total programme amount, SEK m	1 354 148
Unutillised amount, SEK m	868 217
Remaining to utilise, %	**64%**

[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.

Encumbered assets and other pledged collateral 2012 SEK bn	Exposure on balance sheet	
Loans to the public	560	
Assets for insurance policyholders	79	
Government instruments and Bonds	56	
Cash, equities and securities loans	7	
Total	**702**	
Pledged without underlying claim[1]	51	

Non-encumbered/non-pledged assets 2012 SEK bn	NEA[2]	Acc. prop. of non-secured funding, %[3]
Cash and balances with central banks	246	31
Liquid bonds in liquidity portfolio	114	45
Loans to households	**349**	
of which mortgage loans	*225*	*74*
of which loans secured by property mortgage	*17*	*76*
of which other household lending	*107*	*90*
Loans to companies	**687**	
of which mortgage loans	*67*	*98*
of which loans to housing co-operative associations excl mortgage loans	*23*	*101*
of which loans to property companies excl mortgage loans		
- risk class 1–3	*196*	*126*
- risk class 4–5	*79*	*136*
- risk class >5	*12*	*137*
of which other corporate lending		
- risk class 1–3	*194*	*162*
- risk class 4–5	*91*	*173*
- risk class >5	*25*	*176*
Loans to credit institutions	**88**	
- risk class 1–3	*86*	*187*
- risk class >3	*2*	*187*
Other lending	**33**	**192**
Other assets	118	206
Total	**1 635**	**207**

[1] Over-collateralisation in cover pool (OC).
[2] NEA: Non-encumbered assets.
[3] Issued short and long non-secured funding and due to credit institutions.

Cover pool data, Sweden SEK m	31 Dec 2012	31 Dec 2011
Stadshypotek total lending, public in Sweden	780 770	752 258
Available assets for cover pool	691 596	673 080
Utilised assets in cover pool	596 128	584 238
Maximum LTV, weighted average ASCB definition	47.4	48.5
Volume-weighted LTV (LTV-Mid)	23.7	23.8
LTV, distribution		
0–10%	26.6	28.8
10–20%	21.9	21.5
20–30%	17.7	17.4
30–40%	14.1	13.9
40–50%	11	10.7
50–60%	8.3	7.3
60–70%	0.3	0.3
70–75%	0.1	0.1
Loan amount, weighted average, SEK	544 800	519 200
Loan term, weighted average, no. of months	38	37
Interest fixing periods, distribution		
Floating rate (3 months) %	34	49
Fixed rate (> 3 months) %	66	51

the loans they obtain from the Bank's treasury function varies according to the maturity. The internal pricing is important in order to create the right incentive and thereby avoid unsound risk-taking. The Bank has worked with maturity-based internal prices for a long time. Already in 2007, the Bank decided to continue regular issuing of long-term bonds – despite the higher prices for funding as a result of increased credit spreads. At the same time, the internal pricing system was developed to set prices at contract level for the underlying liquidity risk that the agreements give rise to, and at market price for the applicable maturity. The system was fully implemented in 2010.

Organisation

In an otherwise totally decentralised business model, all funding and liquidity risk management are centralised to Central Treasury. The basic condition for the funding operation is that it must promote long-term stable growth in profits by limiting market and liquidity risks. This is achieved by matching cash flows between funding and lending. 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, all liquidity risk limits are channelled via Central Treasury out into the operations.

In the wake of the financial crisis of recent years, a number of new regulations will come into force in the next few years. The Bank has made various changes to meet these new requirements.

These include a centralised treasury function with overall responsibility for all funding and liquidity risk management, an increased proportion of long-term funding, internal prices that reflect the liquidity risk and maturity, and expanded market reporting.

Central Treasury is 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 ensures intra-day liquidity through good control over the Bank's accounts and close cooperation with the Bank's business-operating units and their liquidity needs.

The Bank ensures liquidity through collateral in Sweden's central bank (the Riksbank), via the Scandinavian cashpool and in the collaborative work and central banks where it is also required to support the Bank's core business. The Bank participates in the Continuous Linked Settlement (CLS) and various local payment collaborations. The Bank is also working actively to meet future requirements for monitoring and reporting intra-day liquidity as proposed by the Basel Committee.

Composition of funding

The Bank used all funding programmes during the year. Handelsbanken was the first Nordic bank to issue covered bonds in Australian dollars and during the year, the Bank issued both covered and non-covered long-term bonds in all currencies that are relevant to the Bank. Short-term funding mainly takes place through issues of certificates of deposit under the various loan programmes in Sweden, Europe and the US. These loan programmes are supplemented by funding in the international interbank market. Central Treasury ensures that the maturity structure and currency composition in the balance sheet are in keeping with the Bank's risk tolerance. A total of SEK 239 billion (214) was issued in long-term funding during the year, and at the year-end, the Bank had prefinanced all bonds maturing in 2013.

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 from Central 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. As at the year-end, the Bank's total liquidity reserve exceeded SEK 750 billion.

Holdings with central banks and banks, and securities holdings in the liquidity reserve 31 December 2012, market value

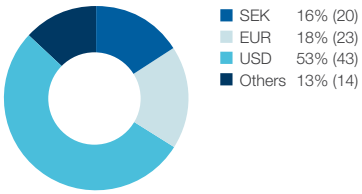
SEK m	SEK	EUR	USD	Other	Total
Cash and balances with and other lending to central banks	1 398	77 217	148 312	19 167	246 094
Balances with other banks and National Debt Office, overnight[1]	12 790	313	734	3 451	17 288
Government-issued securities	20 463	3 830	10 939	218	35 450
Securities issued by municipalities and other public entities	507	0	130	-	637
Covered bonds	47 557	2 268	4 525	1 846	56 196
Own covered bonds	15 286	286	-	1 773	17 345
Securities issued by non-financial companies	-	-	1 233	-	1 233
Securities issued by financial companies (excl. covered bonds)	660	1 591	455	-	2 706
Other securities	-	-	-	-	0
Total	**98 661**	**85 505**	**166 328**	**26 455**	**376 949**

[1] From 31 December 2012 repos are reported on the respective securities line.

Holdings with central banks and banks, and securities holdings in the liquidity reserve 31 December 2011, market value

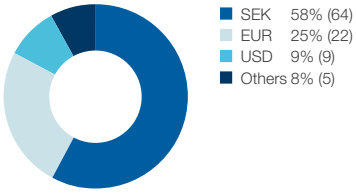
SEK m	SEK	EUR	USD	Other	Total
Cash and balances with and other lending to central banks	14 471	87 123	239 394	34 763	375 751
Balances with other banks, overnight (incl. repos)	17 635	445	219	3 814	22 113
Government-issued securities	23 316	4 168	2 695	2	30 181
Securities issued by municipalities and other public entities	797	-	-	-	797
Covered bonds	30 585	1 956	153	-	32 694
Own covered bonds	6 260	-	-	-	6 260
Securities issued by non-financial companies	-	997	125	-	1 122
Securities issued by financial companies (excl. covered bonds)	5 309	1 050	5 165	-	11 524
Other securities	-	-	-	-	-
Total	**98 373**	**95 739**	**247 751**	**38 579**	**480 442**

Short-term funding per currency



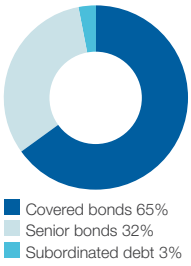
Refers to the currency distribution as at 31 December 2012 for issued securities and financing from credit institutions with a residual maturity of less than one year.

Long-term funding per currency



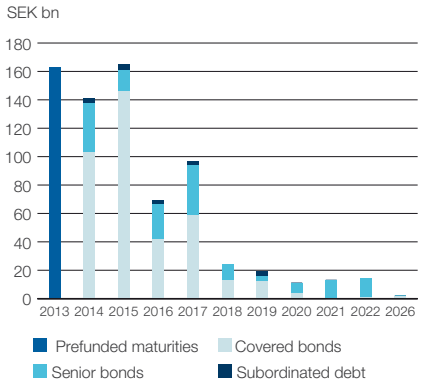
Refers to the currency distribution as at 31 December 2012 for issued securities and financing from credit institutions with a residual maturity of more than one year.

Long-term funding per instrument



Refers to distribution per instrument as at 31 December 2012 for issued securities with residual time to maturity of more than one year.

Maturity profile long-term funding



Refers to issued securities as at 31 December 2012 with an original maturity exceeding one year.

Liquidity risk

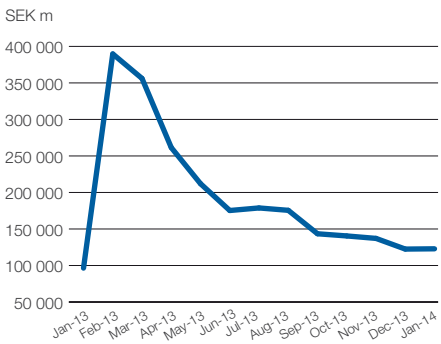
The Bank handles a large number of incoming and outgoing cash flows every day. The gap between incoming and outgoing cash flows is restricted by means of limits. Liquidity planning is based on an analysis of cash flows for the respective currency. As a general rule, a larger exposure is permitted in 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. The gap analysis is supplemented by scenario tests, in which the effect on liquidity is stressed and analysed using various assumptions. These stress tests are performed at Group level and individually for the currencies that are important to the Bank. The internal governance of the Bank's liquidity situation is based on these stressed liquidity figures.

As a measure of short-term disruptions in the funding market, both the Basel Committee and the Swedish Financial Supervisory Authority have proposed a risk ratio called the Liquidity Coverage Ratio (LCR). The LCR is an external reporting requirement and is not part of the Bank's steering model. The ratio is not defined in exactly the same way in the Basel Committee's proposal and in the liquidity coverage ratio decided on by the Swedish Financial Supervisory Authority. Handelsbanken reports its data according to the Swedish Financial Supervisory Authority's definition. The figure states the ratio between the Bank's liquidity buffer and net cash flows in a very stressed scenario during a 30-day period. The ratio must be more than 100 per cent. A short-term liquidity ratio 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 varies in the short-term funding. At the year-end, the Group's aggregated LCR was 136 per cent, which shows that the Bank has large resistance to short-term disruptions on the funding markets. This also applies in US dollars and euros.

Continuous stress testing of cash flows based on certain assumptions is used to test resistance to more long-term disruptions in the market. For example, it is assumed that the Bank cannot obtain funding in the financial markets at the same time as 10 per cent of deposits from households and companies disappear gradually over the course of a 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 Central Treasury's securities can immediately supply liquidity if provided as collateral in central banks. Measures to create liquidity are also used to gradually provide the Bank with liquidity. With these conditions, the Bank will be liquid for over two years. Thus, the Bank also has major powers of resistance to long-term disruptions in the funding market.

The maturity analysis shows undiscounted cash flows for the contracted payment commitments that are due for payment at the latest within the stated time intervals, including interest flows. The below table shows holdings of bonds and other interest-bearing instruments in the time interval in which they can be converted into liquidity if they are provided as collateral or sold. This means that the table does not reflect the actual maturities for the instruments included. Assets, liabilities and interest flows are also shown 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 0–3-month interval. 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.

Liquidity stress test including liquidity-creating measures – cumulative liquidity position



Liquidity Coverage Ratio (LCR) - decomposition, 31 December 2012, SEK m	
Liquid assets	**210 299**
Liquid assets level 1	161 442
Liquid assets level 2	48 857
Cash outflows	**402 356**
Deposits	149 860
Market funding	207 681
Other cash outflows	44 815
Cash inflows	**247 176**
Inflows from maturing lending to non-financial customers	26 122
Other cash inflows	221 054

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. Customer deposits 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. Loans to non-financial customers corresponds to Chapter 5 Section 4. Other cash inflows corresponds to Chapter 5, Sections 6–12.

Liquidity coverage ratio (LCR) 31 December 2012, %	
EUR	301
USD	174
Total	136

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

Maturity analysis for financial assets and liabilities, 2012 SEK m	Up to 3 mths	3–12 mths	1–5 yrs	Over 5 yrs	Unspecified maturity	Total
Cash and balances with central banks	248 917	-	-	-	-	248 917
Bonds and other interest-bearing securities	119 019	-	-	-	-	119 019
Loans to credit institutions	67 130	692	942	3 954	17 473	90 191
of which reverse repos	*59 257*	-	-	-	-	*59 257*
Loans to the public	246 870	221 126	349 089	938 782	15 777	1 771 644
of which reverse repos	*33 800*	-	-	-	-	*33 800*
Total	**681 936**	**221 818**	**350 031**	**942 736**	**33 250**	**2 229 771**
Due to credit institutions	132 664	6 235	454	17 225	33 683	190 261
of which repos	*2 394*	-	-	-	-	*2 394*
Deposits and borrowing from the public	129 799	23 471	5 562	11 124	515 826	685 782
of which repos	*12 295*	-	-	-	-	*12 295*
Issued secutities	322 185	277 089	553 903	90 840	-	1 244 017
Other trading liabilities	14 261	-	-	-	-	14 261
Subordinated liabilities	607	4 242	13 429	6 091	550	24 919
Total	**599 516**	**311 037**	**573 348**	**125 280**	**550 059**	**2 159 240**
Off-balance-sheet items						
Financial guarantees and unutilised commitments	393 087					

Derivatives 2012 SEK m	Up to 3 mths	3–12 mths	1–5 yrs	Over 5 yrs		Total
Total derivatives inflow	712 417	327 296	514 236	132 378		1 686 327
Total derivatives outflow	714 534	322 003	503 293	131 641		1 671 471
Net	**-2 117**	**5 293**	**10 943**	**737**		**14 856**

Maturity analysis for financial assets and liabilities, 2011 SEK m	Up to 3 mths	3–12 mths	1–5 yrs	Over 5 yrs	Unspecified maturity	Total
Cash and balances with central banks	375 996	-	-	-	-	375 996
Bonds and other interest-bearing securities	106 054	-	-	-	-	106 054
Loans to credit institutions	104 245	1 972	962	633	-	107 812
of which reverse repos	*60 492*	-	-	-	-	*60 492*
Loans to the public	230 622	104 035	222 818	1 135 339	-	1 692 814
of which reverse repos	*14 023*	-	-	-	-	*14 023*
Total	**816 917**	**106 007**	**223 780**	**1 135 972**	**-**	**2 282 676**
Due to credit institutions	178 503	6 572	2 828	22 100	-	210 003
of which repos	*4 056*	-	-	-	-	*4 056*
Deposits and borrowing from the public	188 899	29 291	5 483	5 490	495 725	724 888
of which repos	*8 003*	-	-	-	-	*8 003*
Issued secutities	439 973	212 333	527 827	56 565	-	1 236 698
Other trading liabilities	17 748	-	-	-	-	17 748
Subordinated liabilities	9 510	6 836	16 877	6 764	-	39 987
Total	**834 633**	**255 032**	**553 015**	**90 919**	**495 725**	**2 229 324**
Off-balance-sheet items						
Financial guarantees and unutilised commitments	415 842					

Derivatives 2011 SEK m	Up to 3 mths	3-12 mths	1–5 yrs	Over 5 yrs	Total
Total derivatives inflow	770 596	511 375	663 685	177 428	2 123 084
Total derivatives outflow	763 194	509 166	650 092	177 830	2 100 282
Net	**7 402**	**2 209**	**13 593**	**-402**	**22 802**

Maturities in US dollars

In the financial turbulence of recent years, Nordic banks' need for market funding has been in the spotlight – and above all, the need for funding and the ability to obtain funding in US dollars. The starting point of the debate was that the Nordic central banks have limited opportunities of providing the Nordic bank system with liquidity in US dollars. In the event of a liquidity crisis, the Nordic banks would encounter problems when trying to cover their needs in US dollars. Handelsbanken is preparing for such a potential scenario by having reserves in all currencies that are relevant to the Bank and continuity planning that does not presume that the markets for currency transactions are open. The Bank's funding in US dollars exceeds the Bank's need for funding in US dollars. In addition, the maturity structure of the assets and liabilities minimise the liquidity risk in the US dollar balance sheet.

Maturities for assets and liabilities USD, 2012[1] SEK m	Up to 3 mths	3-12 mths	1–5 yrs	Over 5 yrs	Unspecified maturity	Total
Cash and balances with central banks	148 320	-	-	-	-	148 320
Bonds and other interest bearing securities	16 978	-	-	-	-	16 978
Loans to credit institutions	57 660	319	420	2 423	-	60 822
Loans to the public	5 515	1 742	15 944	4 279	8	27 488
Other, including derivatives	131 535	26 994	25 794	11 943	-	196 266
Total assets	**360 008**	**29 055**	**42 158**	**18 645**	**8**	**449 874**
Due to credit institutions	63 566	724	32	0	2 116	66 438
Deposits and borrowing from the public	60 563	159	-	-	12 081	72 803
Issued secutities	199 422	58 008	36 385	16 813	-	310 628
Subordinated liabilities	-	-	186	-	-	186
Total liabilities	**323 551**	**58 891**	**36 603**	**16 813**	**14 197**	**450 055**

[1] The table excludes interest flows.

Risks 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 risks in the insurance business mainly comprise market risks and insurance risks.

Market risk

Handelsbanken Liv conducts life insurance operations with traditional management, unit-linked insurance and portfolio bond insurance. For unit-linked and portfolio bond insurance, the customer chooses the investment option and bears the market risk. In traditional insurance with guaranteed interest, Handelsbanken Liv bears the risk of the financial guarantees entailed by the insurance terms not being fulfilled. The financial guarantee means that the company makes a capital contribution at the value of the insurance contract at specific points in time when the value is less than the guaranteed value of the insurance. Any capital contributions are realised at the year-end or when there is an insurance event.

Handelsbanken Liv's board establishes the annual investment guidelines for the company, and this is the ultimate controlling document for allocation of the company's investment assets relating to traditionally managed insurance. The purpose of the investment guidelines is to provide instructions on how the assets are to be invested given the undertakings to the policyholders and the statutory requirements of the Swedish Insurance Business Act and the applicable directives of the Swedish Financial Supervisory Authority.

Market risk at Handelsbanken Liv arises in the management of investment assets for the traditional insurance and from the fact that valuation of the company's obligations is sensitive to interest rate changes.

The total market risk at Handelsbanken Liv is calculated using Value at Risk (VaR) with a 99.5 per cent confidence level and a holding period of one quarter. In addition, the company's solvency ratio, traffic light situation and cover of liabilities are followed up according to statutory requirements. The market risk management model used by Handelsbanken Liv weights the risk of a capital contribution at insurance contract level together with the risk of a capital contribution at company level due to the increased present value of future guaranteed amounts. Market risk is measured in terms of the overall sensitivity of the capital contributions to market disruptions. The risk exposure is checked daily against a limit stipulated by the Board of Handelsbanken. The larger of the value of contributions to policyholders or contributions due to solvency constitutes the risk utilisation. Sub-categories of financial risk are interest rate risk, equity risk, credit risk, property risk and currency risk. The main risk at Handelsbanken Liv is interest rate risk. At year-end, VaR was SEK 995 million (857).

Liquidity risk in the insurance operations is the risk that the company will not be able to meet its payment obligations when they fall due, or that the company will not be able to sell securities at acceptable prices. This risk is limited by most of the investment assets being invested in listed securities with good liquidity.

Handelsbanken Liv has a low risk tolerance. The goal of the asset management is to secure the company's obligations to the policyholders while maintaining low management costs.

Insurance risk

Insurance companies set their premiums based on assumptions regarding the size of costs for future insurance events. Insurance risk is the risk that the actual and assumed insurance costs differ. The ultimate controlling document is the insurance risk policy issued by the board of Handelsbanken Liv, specifying the amounts within which insurance policies may be issued. Insurance risk at Handelsbanken Liv is related to the following events:

- mortality – payment to the policyholder in the event of the death of the insured person
- longevity – payment that is dependent on the insured person living, for example, pension disbursements
- morbidity – payment in the event of illness or work incapacity
- accident – payment in the event of accident

An insurance policy may contain combinations of these four events.

Most of Handelsbanken Liv's policies are taken out by small companies and private individuals. There is no risk concentration in terms of insurance risk, other than that most of the policies are taken out in Sweden.

Increased longevity in Sweden has an impact on the life insurance company's future commitments. The effect is positive for mortality insurance, but for life insurance it could become an economic burden for the company since average life expectancy is rising and pension disbursements must then be made over a longer period. Since 2009, Handelsbanken Liv has used life expectancy assumptions according to DUS06, which is the industry standard. If mortality continued to decline and in general were to be 10 per cent lower than the company's assumptions, the present value of the expected increased cost would be SEK 55 million. Most of Handelsbanken Liv's insurance policies with mortality risk are priced annually. This means that the company can unilaterally change the premium from year to year. Thus, an incorrect mortality assumption can be changed with rapid effect.

Changes in morbidity occur much more rapidly than changes in mortality, which may contribute to variations in the risk result. The result therefore depends both on how many insured persons fall ill and how many recover in relation to the assumptions applied. Sickness/disability insurance products are generally designed in such a way that the premium can be changed annually, thus allowing the company to compensate for changes in morbidity. The sickness/disability result for 2012 is SEK 65 million, where SEK 59 million is attributable to sickness cases reported during the year, SEK 3 million to existing sickness cases which are being closed and the remaining SEK 3 million to sickness cases which have occurred but not yet been reported.

The insurance operations report their market, insurance and operational risks to the insurance company's board and chief executive, to Handelsbanken's Central Risk Control and to the Bank's CFO, Group Chief Executive and Board.

Solvency II

The implementation of the Solvency II regulations has been further delayed and it is currently unclear when the directive will be fully implemented and implemented in Swedish law. However, parts of the regulations will be introduced in the regulatory authorities' practical supervision as of 1 January 2014. The legislator's aim is to strengthen protection for policyholders by linking the solvency requirement more clearly to how insurance companies identify, measure and manage all risks that occur in the companies such as market, insurance, credit and operational risk. During the last few years, Handelsbanken Liv has worked on adapting the operations to Solvency II, and this will continue during 2013.

Operational risk

Operational risks must be managed so that the Group's operational risks and losses remain small, both in comparison with previous own losses incurred, and – when comparison is possible – with other banks' operational losses.

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

Handelsbanken has a low tolerance of operational risks and works actively to identify and manage operational risks. This work is supported by the Bank's strict attitude to risk, but also by the strong focus on cost-effectiveness, since deficiencies in administrative order can easily lead to unnecessary costs. Operational errors and deficiencies are therefore reduced as far as possible. This applies to minor but frequent events and major events which could cause major unexpected losses. The Bank's management performs frequent, active follow-up of operational risk through the organisation for risk control. Operational risks which may lead to the most serious consequence are the subject of special attention. Internal Audit's examination of the operations also focuses on operational risk.

The responsibility for the management of operational risks is distributed between operations, local risk control and Central Risk Control. The business operations are responsible for the regular identification and management of risks. Local risk control is responsible for ensuring that existing methods and procedures for managing operational risks are used in the business operations, and for evaluation of operational risk management. They are also responsible for implementation and follow-up of proactive measures. Central Risk Control is responsible for the procedures that are used to identify, steer, control and report operational risks, and for follow-up at overall Group level.

Operational risk exists in all operations within Handelsbanken, and the responsibility for the day-to-day identification, management and control of risk is a clear, integrated part of managerial responsibility at all levels of the operations. The Bank's decentralised method of work promotes cost-consciousness that results in vigilance against potential loss risk in daily procedures and events. By focusing on good administrative order and possible proactive measures, all parts of the operations keep their risks at an acceptable level.

Operational risks are included in internal instructions issued by managers with function responsibility, where account is taken of whether the division of work and responsibilities, the control structure of procedures, and information and reporting systems are fit for purpose. Rules and procedures are assessed annually and the internal control of procedures and business flows is documented. The manager of each unit also conducts annual security reviews with their staff, including internal control, information security, bank confidentiality and other security measures.

Apart from the responsibility for operational risk borne by the managers, there are officers with special responsibility for information security and Group security who report directly to the Group Chief Executive.

Local risk control functions with staff responsible for operational risk are in place at regional banks, main departments, subsidiaries and units outside the Bank's home markets. They are responsible for ensuring that existing methods to manage operational risk are used and they work proactively to identify operational risks and to monitor that appropriate measures to reduce the risks are taken and completed. They also check that operational risk management is correctly conducted.

Central Risk Control has the overall responsibility for the methods used for identifying and quantifying operational risk. Central Risk Control is also responsible for analysing and reporting the Group's operational risk to the management and Board, and for monitoring the measures taken to reduce the operational risks. To achieve and maintain good quality in this management, Central Risk Control and the local risk control functions cooperate closely and on a regular basis. Operational risks are reported to the Board every six months. Ahead of this report, Central Risk Control obtains information from heads of regional banks, main departments, subsidiaries and Handelsbanken International. The information covers significant events, major losses and important proactive measures which are in progress. Central Risk Control supplements this with an aggregated risk assessment at Group level. When major external events affect other financial institutions, the report can be supplemented with information concerning internal investigations or proactive measures within the Bank. The whole report is presented to the CFO, Group Chief Executive and Board.

The Bank pays great care when processing new products and services and major changes to existing products and services. Each business area, subsidiary and regional bank with product responsibility processes new products in accordance with central guidelines, which are minimum requirements. This includes an established process for deciding how products are to be introduced. A risk analysis led by the local risk control is always performed before a product is launched. The analysis takes account of the risks for the Bank and for the customer, including operational risks. Central Risk Control

is informed of the results of the analysis and is involved in complex cases when this is justified.

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

In order to capture the operational risks that are not identified and managed in regular procedures, internal control or when approving new products, all regional banks, main departments, subsidiaries and international units outside the Bank's home markets perform an annual self-assessment of operational risks called OPRA Risk Analysis. The local risk control function is responsible for carrying out an OPRA analysis every year. Central Risk Control provides support for the planning and implementation. Units with more complex operations divide the self-assessment procedure into several sessions. Normally, around 5–8 experienced employees who have a good overview of the unit's operations and risks participate in the sessions. The aim is to identify risks and assess the consequence and likelihood of the event occurring. The assessment of the impact includes both financial losses and lost reputation. Important input includes facts and statistics from incidents reported during the previous year together with incidents that have affected other parts of the Group or other banks and companies. 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 local risk control. To confirm that the assessment procedure has been completed, Central Risk Control is informed about the completed OPRA analysis, including the action plan. The action plan is also used in Central Risk Control's follow-up of proactive measures taken by the local risk control function.

An incident is an event that is covered by one of the seven Basel II types of event that cover operational risk. All employees throughout the Handelsbanken Group have a duty to report incidents that affect their units. A loss in excess of SEK 25,000 is always an incident. Incidents reported are reviewed and categorised on a regular basis by the local risk control function. The work also includes following up and initiating any proactive measures. This is done in close collaboration with the affected departments and branches. Local compliance is also authorised to monitor incidents reported in the regional bank, main department, subsidiary or international unit in question. In addition to Central Risk Control, the central departments of Group Security, Internal Audit, Information Security and Compliance have access to the database and can follow all incidents reported at Group level. This facilitates collaboration concerning management of risks and proactive measures.

There are emergency and continuity plans in place in all parts of the Group for dealing with serious disruptions. The emergency plans help 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 a local crisis team within each regional bank and international unit outside the Bank's home markets and also at the Central IT Department and Handelsbanken Capital Markets. The central crisis team has permanent staff consisting of members of management and/or those close to them. The central crisis team functions as a liaison crisis team in the event of a major crisis in the Group, supports any local crisis team(s) 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.

Handelsbanken uses the standardised approach to calculate the capital requirement for operational risks. 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.

The total capital requirement for operational risks for the whole of the Handelsbanken Group was SEK 4,181 million (4,117) at the end of 2012.

Risks in the compensation system

The compensation system is intended to boost the Bank's competitiveness and to contribute to higher profitability by attracting, retaining and developing skilled staff. An incorrectly designed compensation system may lead to actions that conflict with the Bank's long-term goals and stimulate undesirable risk-taking which can negatively affect the company's financial situation. To ensure that Handelsbanken has a well designed compensation system, risks in the compensation system are managed as a separate risk, with the same allocation of responsibilities as other types of risk.

Compensation risk is the risk of loss or other damage arising due to the compensation system.

The aim of the Bank's policy on salaries is to increase the Bank's competitiveness and profitability, to enable the Bank to attract, retain and develop skilled staff, and to ensure good skills development and management succession planning. Good long-term profitability and productivity performance at the Bank create the conditions for stable and positive salary development for the Bank's employees.

Compensation for work performed is set individually for each employee, and is paid in the form of a fixed salary, customary salary benefits and a pension provision. At Handelsbanken, salaries are set at the local level. Salaries are set in salary reviews between the employee and their line manager. These principles have been applied for many years with great success. 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. Salaries are based on salary-setting factors defined in advance, namely the nature and level of difficulty of the work, skills, performance and results achieved, leadership (for managers who are responsible for the career development of employees), supply and demand on the market, and the task of ambassador for the Bank's corporate culture.

The Bank has low tolerance of compensation risks and actively strives to keep them at a low level. This is achieved in part by only using variable compensation to a very limited extent and only in the areas where this is market practice. Where variable compensation exists, it is subject to deferred payment.

The Bank's principles for compensation to employees are long established. The principles for the Bank's compensation system are stipulated in the compensation policy which is decided by the Board. More detailed implementation directives are decided by the Group Chief Executive. The responsibility for identifying and managing compensation risks rests with every responsible manager in the operations and is managed according to internal policies, guidelines and instructions. Local risk control regularly monitors that the compensation system is applied as intended. Central Risk Control is responsible for evaluating the risks associated with the compensation policy and the compensation system before the compensation policy is processed and established by the Board. This is done at least once a year. A broad approach is used in the evaluation, and points that must be evaluated include the incentive structure, the balance between fixed and variable compensation, deferral rules, and effects on the capital base. In addition, Central Risk Control evaluates the application of the compensation. Based on this risk analysis and evaluation, an assessment is made as to whether the compensation system is designed in a way that could threaten the Bank's financial position. The responsibility also includes ensuring that risk costs are calculated correctly in the context of compensation.

Handelsbanken's remuneration policy and compensation system are deemed to generate low risks and promote sound and effective risk management, counteract excessive risk-taking, fit in with the Bank's low tolerance of risks and support the Bank's long-term interests. The compensation system is designed in such a way that there is no risk that the Bank's capital base is undermined as a result of mandatory payment of variable compensation. It is possible to reduce or remove variable compensation, wholly or partly – which applies both for allocations for variable compensation and for deferred variable compensation which has not yet been paid.

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

Economic capital

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

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.

The Central Risk Control function 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 a vital component in planning to ensure that the Group has sufficient capital at all times in relation to all risks in the Group. The Group perspective therefore 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 the 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 in the event of an extreme shock at a 99.97 per cent confidence level.

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

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 trading risks, the interest rate risk in the banking operations, market risks in the insurance operations and the risk of value losses in the Bank's own share portfolio.

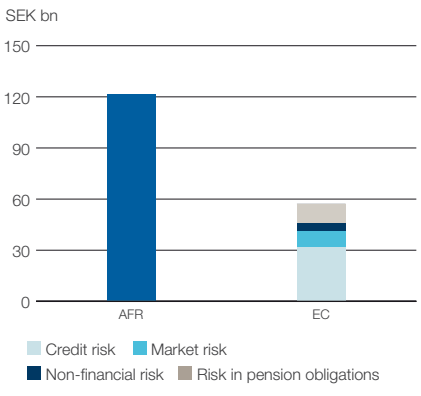
The risk in the pension obligations mainly consists of the risk of a decrease in the values that exist for securing the Bank's pension obligations. Most of the pension obligations are in Sweden and are secured there in a pension foundation and insured in an occupational pension fund.

The non-financial risks are operational risk, business risk, property risk and insurance risk. Business risk is related to unexpected variations in earnings in the business area in question. This may arise if, for example, demand or competition changes unexpectedly, thus resulting in lower volumes and narrower 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 57 billion (56), of which credit risks accounted for the main part of the total risks. The Board stipulates that the AFR/EC ratio should be at least 120 per cent. The AFR/EC ratio was 213 per cent (229) 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 safety margins 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.

Total of AFR and EC including diversification, 31 December 2012



Capital planning

If Handelsbanken were to suffer serious losses despite its historically 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. Stress tests are vital in the Bank's work of identifying threats and as early as possible preparing the necessary measures to ensure satisfactory capitalisation in all situations.

Handelsbanken's capital planning aims to ensure that the Group has 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 goal figures, Handelsbanken's model for economic capital and also of stress tests. The Bank's capital requirement is reported weekly to the CFO, regularly to the Group Chief Executive, and at least quarterly to the Board.

The targets for the Bank's capital are determined regularly by the Board on the basis of stress tests of regulatory capital and EC. The Board stipulates that the tier 1 capital ratio in Basel II, which is the relevant measurement for management of the Bank according to the present rules, must be between 9 and 11 per cent. In view of the anticipated new rules with increased capital requirements, the Bank has opted to increase its capitalisation above the target interval. An adjusted target for capital can be decided when the new regulations have been established.

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.

A long-term capital plan is drawn up annually, 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 the capital base.

The capital planning work is performed through an ongoing analysis of changes in volume, risk and performance, and by monitoring events that may affect the capital requirement and capital volume. Short-term forecasting includes all sub-components that make up the Group's capital base. This work also includes conducting various sensitivity analyses, with a short-term perspective, of the expected change in the capital adequacy requirement and capital base. The Bank can thus be prepared to alter the size and composition of the capital base if required – through market operations, for example.

The result of the short-term analysis forms the basis of any capital operations performed and is continually reported to the CFO and, if necessary, to the Group Chief Executive and Board. The analysis is based on a cautious basic scenario, with decision points in the near future for how the existing earnings capacity can cope with various changes in volume, as well as what effects 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 AFR at all times covers by a good margin all risks calculated according to the economic capital model. The objective is to forecast expected performance and judge whether the Bank's resistance is satisfactory in various scenarios. The planning period is at least five years and takes account of the Group's overall business performance trend.

Scenario and stress tests are also continuously performed in this forecasting work. A basic scenario forms the foundation of the 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 following analysis of the historical links between the impacts of different macroeconomic variables on the financial markets and have been selected by using the scenarios expected to have the greatest adverse impact on Handelsbanken.

The result of the internal capital adequacy assessment is reported quarterly to the Board.

At the end of 2012, the tier 1 capital ratio according to Basel II was 21 per cent, since the Bank, pending a decision concerning capital regulations, has decided to increase its capitalisation to a level exceeding the Bank's target interval in Basel II of 9–11 per cent. The ratio between AFR and EC was 213 per cent at the same date.

The Bank's strong position is further emphasised by the result of the various forward-looking stress scenarios which are carried out, showing that Handelsbanken's long-term capital situation is very stable in both a financial and statutory perspective.

Capital base and capital requirement

Handelsbanken aims to maintain a satisfactory capital level which exceeds the minimum legal requirements by a wide margin.

CAPITAL BASE

The Bank's Annual Report provides a description of the composition of the capital base for the banking group, the terms applying to the different parts of the capital base and the deductions from the various items.

For the Bank's risk management, it is important that in risk terms both the Group and the banking group 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 the capital base, or repayment of liabilities between the parent company and its subsidiaries.

Capital base SEK m	2012	2011
TIER 1 CAPITAL		
Equity, Group	106 897	94 524
Accrued dividend, current year	-6 804	-6 085
Deduction of equity outside the banking group	-1 167	-558
Difference in result between banking group and Group	2 853	-520
Minority interests, Group	-2	0
Equity, capital base	**101 777**	**87 361**
Innovative tier 1 capital contributions	9 323	11 254
Non-innovative tier 1 capital contributions	2 903	2 910
Minority interests, banking group	572	423
Deducted items		
Goodwill and other intangible assets	-7 458	-7 234
Revaluation reserve	-108	-115
Value adjustements for positions measured at fair value	-14	-56
Deferred tax assets	-61	-386
Special deduction for IRB institutions	-1 094	-945
Capital contribution in companies outside the banking group	-1 483	-234
Positions in securitisation	-248	-219
Adjustments in accordance with stability filter		
Cash flow hedges	-1 149	676
Unrealised accumulated gains, shares	-797	-133
Unrealised accumulated gains/losses, fixed income instruments	170	246
Total tier 1 capital	**102 333**	**93 548**
TIER 2 CAPITAL		
Perpetual subordinated loans	3 133	11 710
Dated subordinated loans	4 274	7 957
Additional items		
Unrealised accumulated gains, shares	797	133
Revaluation reserve	108	115
Deducted items		
Special deduction for IRB institutions	-1 094	-945
Capital contribution in companies outside the banking group	-1 483	-234
Positions in securitisation	-248	-219
Total tier 2 capital	**5 487**	**18 517**
Total tier 1 and tier 2 capital	**107 820**	**112 065**
Deductable items from total capital base		
Capital contribution in insurance companies	-4 417	-4 417
Surplus value pension assets	-1 524	-1 471
Total capital base for capital adequacy purposes	**101 879**	**106 177**

CAPITAL REQUIREMENT

The capital requirement for credit risks is calculated by a risk-weighted exposure amount being calculated for all the banking group's exposures. The risk-weighted exposure amount for credit risk is partly calculated according to the IRB internal risk classification model, foundation and advanced approaches, and partly according to the standardised approach. Handelsbanken applies the standardised approach for calculating operational risks. The Swedish Financial Supervisory Authority's standardised approach is used to calculate the capital requirement for market risk.

The adjoining table shows the total capital requirement and its various components.

CAPITAL ADEQUACY FOR THE FINANCIAL CONGLOMERATE

Institutions and insurance companies which are part of a financial conglomerate must have a capital base which is adequate in relation to the capital requirement for the financial conglomerate. The capital base for the financial conglomerate has been calculated by means of a combination of the aggregation and settlement method and the consolidation method. This means that the capital base for the banking group has been combined with the capital base for the Handelsbanken Liv AB insurance group. Correspondingly, in order to calculate the requirement for the conglomerate, the solvency requirement for the insurance group has been added to the capital requirement for the banking group.

Capital requirement SEK m	**2012**	**2011**
Credit risk		
Credit risk according to standardised approach	3 799	3 760
Credit risk according to IRB approach	30 174	31 904
Market risk		
Interest rate risk	880	850
of which general risk	*660*	*711*
of which specific risk	*220*	*139*
Equity price risk	26	14
of which general risk	*10*	*6*
of which specific risk	*13*	*7*
of which funds	*3*	*1*
Foreign exchange risk	-	-
Commodities risk	9	20
Settlement risk	3	-
Operational risk		
Operational risk	4 181	4 117
Total capital requirement according to Basel II	**39 072**	**40 665**
Adjustment according to transitional rules	41 426	38 389
Total capital requirement according to Basel II transitional rules	**80 498**	**79 054**
Risk-weighted assets according to Basel II transitional rules	1 006 219	988 180
Risk-weighted assets according to Basel II	488 400	508 317

Capital adequacy analysis, %	**2012**	**2011**
Capital requirement in Basel II compared to transitional rules	49	51
Capital ratio according to		
Basel II	*20.9*	*20.9*
transitional rules	*10.1*	*10.7*
Tier 1 capital ratio according to		
Basel II	*21.0*	*18.4*
transitional rules	*10.2*	*9.5*
Core tier 1 capital ratio according to		
Basel II	*18.4*	*15.6*
transitional rules	*9.0*	*8*
Capital base in relation to capital requirement		
Basel II	*261*	*261*
transitional rules	*127*	*134*

Capital adequacy financial conglomerate SEK m	**2012**	**2011**
Capital base after reduction and adjustments	107 482	108 734
Capital requirement	81 451	80 078
Surplus	**26 031**	**28 656**

Banking group

Companies included in the banking group	Corporate identity number	Domicile
Handelsbanken AB (publ)[1]	502007-7862	Stockholm
SUBSIDIARIES		
Handelsbanken Finans AB[1]	556053-0841	Stockholm
Kredit-Inkasso AB	556069-3185	Stockholm
Handelsbanken Rahoitus Oy	0112308-8	Helsinki
Kreditt-Inkasso AS	955074203	Fredrikstad
Handelsbanken Finans (Shanghai) Financial Leasing Co., Ltd	310101717882194	Shanghai
Stadshypotek AB[1]	556459-6715	Stockholm
Stadshypotek Delaware Inc. (in liquidation)	98-0342158	New York
Svenska Intecknings Garanti AB Sigab (inactive)	556432-7285	Stockholm
Handelsbanken Fondbolagsförvaltning AB	556070-0683	Stockholm
Handelsbanken Fonder AB	556418-8851	Stockholm
Handelsinvest Investeringsforvaltning A/S	12930879	Copenhagen
Handelsbanken Fondbolag Ab	1105019-3	Helsinki
Handelsbanken Kapitalförvaltning AS	973194860	Oslo
XACT Fonder AB (in liquidation)	556582-4504	Stockholm
AB Handel och Industri	556013-5336	Stockholm
Ejendomsselskabet af 1. januar 2002 A/S	38300512	Herning
Ejendomsselskabet af 1. maj 2009 A/S	59173812	Hillerød
Forva AS	945812141	Oslo
Lejontrappan AB	556481-1551	Gothenburg
Handelsbanken Markets Securities, Inc[1]	11-3257438	New York
Handelsbanken Mezzanine Fond 1 KB (inactive)	969710-3126	Stockholm
Handelsbanken Mezzanine Management AB (inactive)	556679-2668	Stockholm
Lokalbolig A/S	78488018	Hillerød
Rådstuplass 4 AS	910508423	Bergen
SIL (Nominees) Limited (inactive)	1932320	London
Svenska Handelsbanken Delaware Inc.	13-3153272	Delaware
Svenska Handelsbanken S.A.[1]	RCS Lux B-15992	Luxembourg
Svenska Property Nominees Limited (inactive)	2308524	London
ZAO Svenska Handelsbanken (in liquidation)	1057711005384	Moscow
Handelsbanken Fastigheter AB	556873-0021	Stockholm
Sv Handelsbanken Representacões (Brasil) Ltda	15.367.073/0001-93	Sao Paulo
ASSOCIATES		
Bankomatcentralen AB	556197-2265	Stockholm
BDB Bankernas Depå AB	556695-3567	Stockholm
BGC Holding AB	556607-0933	Stockholm
Bankgirocentralen BGC AB	556047-3521	Stockholm
Devise Business Transactions Sweden AB	556564-5404	Stockholm
Finansiell ID-teknik BID AB	556630-4928	Stockholm
Upplysningscentralen UC AB	556137-5113	Stockholm
UC Ekonomipublikationer AB	556613-0042	Stockholm
UC allabolag AB	556730-7367	Stockholm
Bankomat AB	556817-9716	Stockholm
Getswish AB	556913-7382	Stockholm

[1] Credit institution.

Companies not included in the banking group	Corporate identity number	Domicile
Handelsbanken Liv Försäkring AB (the Group excluding Handelsbanken Fastigheter AB)	516401-8284	Stockholm
Svenska Re S.A.	RCS Lux B-32053	Luxembourg
Handelsbanken Skadeförsäkrings AB	516401-6767	Stockholm
Handelsbanken Renting AB (in liquidation)	556043-2766	Stockholm
Flisekompaniet Holding AS	992999136	Oslo
Dyson Group plc	163096	Sheffield
Plastal Industri AB	556532-8845	Gothenburg
Festival AS	993798304	Kristiansand

Definitions and explanations

CAPITAL BASE
The capital base is the sum of tier 1 (primary) and tier 2 (supplementary) capital. To obtain the total capital base for capital adequacy purposes, deductions are made for capital contributions in insurance companies, reported surplus values of pension assets and the difference between the expected loss and the provisions made for probable loan losses. For a more detailed description of the capital base, see note G49 in the Annual Report.

CAPITAL REQUIREMENT
The statutory capital requirement is that the capital base must be at least 8 per cent of the Risk-weighted amount. In this calculation, the capital base is reduced by the net of EL minus provisions.

CAPITAL RATIO
The total capital base for capital adequacy purposes in relation to risk-weighted volume.

CF
The coversion factor that is used when calculating EAD for unutilised overdraft facilities, committed loan offers, guarantees and other off-balance-sheet commitments.

CORE TIER 1 CAPITAL
Total tier 1 capital excluding tier 1 capital contributions.

CORE TIER 1 CAPITAL RATIO
Core tier 1 capital in relation to risk-weighted volume.

CREDIT RISK EXPOSURE
The exposure which is subject to a capital requirement according to the credit risk regulations in FFFS 2007:1.

CREDIT RISK PROTECTION
Risk-reducing factors/measures, such as property mortgages.

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 collateral, if any, or take similar measures.
- The counterparty is more than 90 days late with a payment unless it is an insignificant amount.

EAD
Exposure at default. This is the same as Basel exposure which is the amount subject to a capital requirement. It is calculated inclusive of interest and fees. Off-balance-sheet amounts are recalculated with the conversion factor (CF). For derivatives, EAD is calculated as positive MTM (replacement cost) plus value change risk (i.e the nominal amount multiplied by the upward adjustment factor).

EL
Expected loss. It is the same as Expected loss amount, i.e. PD x LGD x EAD.

EXPOSURE
Exposure means the total exposures on and off the balance sheet.

EXPOSURE AMOUNT
Exposure amount is the same as EAD.

HAIRCUT
The percentage by which the market value of a financial asset is reduced to take into account the risk of price movements when calculating capital requirements, margins and collateral.

IMPAIRED LOAN
Loans are classified as impaired loans if contracted cash flows are not likely to be fulfilled. The full amount of all claims which give rise to a specific provision is included in impaired loans, even if parts are covered by collateral.

IRB
Internal rating-based approach for risk classification.

ITRAXX
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.

LCR
Liquidity Coverage Ratio. The Basel Committee's proposal for a short-term stress measure of liquidity. The Basel Committee's definition differs from that of the Swedish Financial Supervisory Authority.

LGD
Loss Given Default. It is the same as the proportion of an exposure that the Bank loses on average 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) at the beginning of the year, and also repossessed property and credit guarantees.

LTV
Loan-to-value ratio.

M
M stands for Maturity and refers to the maturity according to the IRB regulations.

OTC DERIVATIVES
Over-the-counter derivatives are the same as uncleared tailor-made derivatives.

PD
The probability of default is the same as the probability of a borrower defaulting within one year. A PD of 0.2 per cent implies that two borrowers out of 1,000 are expected to default within one year.

PROPORTION OF IMPAIRED LOANS
Net impaired loans in relation to total loans to the public and credit institutions (excluding banks). Impaired loans are reported without deduction for the collateral which exists to secure the claim.

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

RISK-WEIGHTED ASSETS
Total risk-weighted amount. The statutory capital requirement is based on this.

RISK-WEIGHTED VOLUME
The total risk-weighted amount from each credit risk exposure. The risk-weighted amount is the same as the risk weight of the exposure multiplied by its exposure amount. The risk weight is based on a number of factors such as the repayment capacity and debt-servicing of the counterparty, type of product and the value of any collateral.

RISK-WEIGHTED AMOUNT
Risk-weighted amount is the risk weight for each exposure multiplied by the size of the exposure (EAD).

STANDARDISED APPROACH
The method of calculating and reporting credit risks in Basel II. It is based on standardised risk weights on the basis of the external rating.

TIER 1 CAPITAL
Tier 1 capital is one of the components of the capital base and comprises equity and tier 1 capital contributions. Deductions are made for, inter alia, dividends generated, goodwill and other intangible assets, and also the difference between an expected loss and provisions made for probable loan losses. Profits generated in the Group's insurance company are not included in the tier 1 capital. For a more detailed description of the capital base, see note G49 in the Annual Report.

TIER 1 CAPITAL RATIO
Tier 1 capital in relation to risk-weighted volume.

TIER 1 CAPITAL CONTRIBUTIONS
Tier 1 capital contributions (hybrid loans) comprise subordinated loans that may be included in the tier 1 capital with the consent of the Swedish Financial Supervisory Authority.

TIER 2 CAPITAL
Tier 2 capital is one of the components of the capital base and mainly consists of perpetual and fixed-term subordinated loans. For a more detailed description of the capital base, see note G49 in the Annual Report.

VAR
Value at Risk. A probability-based risk measure.

FINANCIAL INFORMATION

The following reports can be downloaded or ordered from Handelsbanken's website handelsbanken.se/ireng:

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

IMPORTANT DATES 2013

6 February	Highlights of Annual Report 2012
20 March	Annual general meeting
24 April	Interim report January – March 2013
17 July	Interim report January – June 2013
23 October	Interim report January – September 2013

www.handelsbanken.com +46 8-701 10 00 SE-106 70 Stockholm