



**Capital and risk management  
Pillar III  
Nordea Bank Finland Group 2010**

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Nordea Bank Finland hereby presents its capital position and how the size and composition of the capital base are related to the risks as measured in Risk Weighted Amounts (RWA). The national capital adequacy legislations are based on the European Union's (EU) Capital Requirements Directive (CRD), which in turn is based on the Basel II framework issued by the Basel Committee on Banking Supervision (BCBS).

The Nordea Bank Finland Group follows the Finnish Act on credit institutions and the Finnish financial supervisory authority's standards 4.5 Supervisory disclosure of capital adequacy information and 4.1 Establishment and maintenance of internal control and risk management, which are based on the CRD. Furthermore, the disclosures are made in accordance with Nordea's internal policy and instructions for disclosing information on capital adequacy in the Nordea Group.

Further disclosure of risk, liquidity and capital management is presented in the annual report in accordance with the international financial reporting standards, IFRS. The pillar III disclosure is made for the Nordea Group and for the subgroups Nordea Bank Danmark Group, Nordea Bank Finland Group and Nordea Bank Norge Group as well as Nordea Bank Polska S.A. This report for the Nordea Bank Finland Group is presented on [www.nordea.com](http://www.nordea.com) and the key data on capital adequacy is presented in the annual report of the entity.

The full pillar III disclosure is made annually and the periodic information is published semi-annually, included in the semi-annual report for the entity. The format, frequency and content of the disclosures follow, to as large extent as possible with regards to the local legislation, a common setup in Nordea Group. Nordea has stated the common principles in a policy and instructions for disclosing information on capital adequacy in the Nordea Group. The Board of Directors in Nordea Bank Finland has also approved a policy regarding pillar III disclosure.

In this report, Nordea Bank Finland Group is defined as Nordea Bank Finland, and Nordea Group is defined as Nordea or Nordea Group.

## 1. Highlights of 2010

*In 2010, the macroeconomic recovery has started in the Nordic countries and also in the Baltic countries with strong GDP growth figures. Nordea's net loan losses have decreased and credit quality have turned positive, giving a small effect on risk-weighted assets compared to last year, despite the continued volume growth. The tier 1 ratio was at the end of 2010 13.6%.*

Nordea Bank Finland is part of Nordea Group which continued to have a strong name in the funding market and has been able to maintain a high activity also in the long-term funding market. Nordea is confident and well-prepared for the future, due to strong profitability, high quality in the well-diversified credit portfolio, strong capital base and a diversified funding base. From what is known today, Nordea already meets the Basel III capital requirements.

### **Improving credit quality and continued strong risk management**

Credit quality improved in 2010 as net loan losses decreased, rating migration has turned positive and impaired loans have stabilised. In 2010, the credit exposure increased by 4%, with increases to a large extent from the corporate and retail segments.

Nordea's market risk taking activities are well diversified and oriented towards Nordic and European markets.

The market risk is to a large extent driven by interest rate risk. The total market risk VaR was on average EUR 42m in 2010.

### **Capital management well established**

Despite the strong volume growth, the core tier 1 capital ratio, excluding transition rules, slightly decreased compared to last year and was at the end of 2010 13.6% (14.0%).

### **Maintained strong funding name and high long-term funding activity**

Also in the funding and liquidity risk area, Nordea maintained its position as one of the strongest names in the funding market. Nordea, supported by its well recognized name and strong rating, has had access to all relevant financial markets and has been able to actively use all its funding programmes.

### **Stress tests**

During 2010, Nordea has continued to perform several internal stress tests in order to evaluate the risks of different economic scenarios, both macroeconomic and for certain identified high risk areas. In addition to the internal stress tests, Nordea Group has been part of external stress tests performed by financial supervisors, central banks and equity analysts. The result of the CEBS' stress test of European banks that was performed during spring/summer confirms Nordea's strong balance sheet and capital situation. Nordea was one of 91 banks that were included in the stress test and even in the most severe scenario i.e. the adverse scenario combined with the sovereign shock; Nordea Group's Tier 1 ratio dropped only 10bps. This clearly demonstrates the strength of Nordea's risk management, capital planning and its ability to assess a sufficient need of capital. In accordance with the 2010 Internal Capital Adequacy Assessment Process (ICAAP) and Supervisory Review and Evaluation Process (SREP), the regulators agreed that Nordea was adequately capitalised given its risk profile and portfolio.

### **Basel III – new regulations for capital and liquidity risk**

During 2010, more clarity has evolved on the main elements of the new regulatory requirements for capital and risk – the Basel III and Solvency II frameworks. In Nordea, there is a strong focus on capital, liquidity and risk management within the organisation

in order to meet new regulatory demands. Nordea is well prepared to meet new regulatory requirements.

## 2. Governance of risk and capital management

*Risk, liquidity and capital management are key success factors in the financial services industry. Exposure to risk is inherent in providing financial services, and Nordea assumes a variety of risks in its ordinary business activities, the most significant being credit risk. The maintaining of risk awareness in the organisation is incorporated in the business strategies. Nordea Group has clearly defined risk, liquidity and capital management frameworks, including policies and instructions for different risk types, capital adequacy and for the capital structure.*

### 2.1 Nordea in the capital adequacy context

The information given in this report refers to Nordea Bank Finland Bank Plc with corporate registration number 1680235-8.

The financial statements are published quarterly and the consolidated financial statements include the accounts of the parent company Nordea Bank Finland Plc including subsidiaries according to International Accounting Standard (IAS) 27. In the Financial Group, the insurance operations are not consolidated. According to the requirements in the CRD, insurance subsidiaries and associated undertakings with financial operations are instead deducted from the capital base in the capital adequacy reporting (e.g. credit institutions or insurance companies where Nordea owns 10% or more of the capital). Table 1 last in this chapter discloses the undertakings that have been consolidated and deducted from the capital base.

### 2.2 Risk and capital management

#### 2.2.1 *Risk and capital management principles and control,*

##### *Board of Directors*

The Board of Directors has the ultimate responsibility for limiting and monitoring the Group's risk exposure. The Board of Directors also has the ultimate responsibility for setting the targets for the capital ratios. The targets are documented in the Group's capital policy. Risk is measured and reported according to common principles and policies approved by the Board of Directors. The Board of Directors decides on policies for credit, market, liquidity and operational risk management. All policies are reviewed at least annually.

In the credit instructions, the Board of Directors decides on powers-to-act for credit committees at different levels within the customer areas. These authorisations vary for different decision-making levels, mainly in terms of size of limits, and are also dependent on the internal rating of customers. The Board of Directors also decides on the limits for market and liquidity risk in the Group.

##### *Board Credit Committee*

The Board Credit Committee monitors the development of the credit portfolio including industry and major customer exposure. The Board Credit Committee confirms industry policies approved by the Executive Credit Committee (ECC).

##### *CEO and GEM*

The Chief Executive Officer (CEO) has overall responsibility for developing and maintaining effective risk, liquidity and capital management principles and control. The CEO in Group Executive Management (GEM) decides on the targets for the Group's risk management regarding SIIR (Structural Interest Income Risk), as well as, within the scope of resolutions adopted by the Board of Directors, the allocation of the market risk limits and liquidity risk limits to the risk-taking units Group Treasury and Markets. The

limits are set in accordance with the business strategies and are reviewed at least annually. The heads of the units allocate the respective limits within the unit and may introduce more detailed limits and other risk mitigating techniques such as stop loss rules.

The CEO and GEM regularly review reports on risk exposure and have established the following committees for risk, liquidity and capital management:

- The Asset and Liability Committee (ALCO), chaired by the Chief Financial Officer (CFO), prepares issues of major importance concerning the Group's financial operations, financial risks as well as capital management for decision by the CEO in GEM.
- The Risk Committee, chaired by the Chief Risk Officer (CRO), monitors developments of the different risks on an aggregated level.
- The Group Executive Management Credit Committee (GEM CC) and Executive Credit Committee (ECC) are chaired by the CRO and the Group Credit Committee (GCC) by the Chief Credit Officer (CCO). These credit committees decide on major credit risk limits and industry policies for the Group. Credit risk limits are granted as individual limits for customers or consolidated customer groups and as industry limits for certain defined industries.

The CRO has the authority to issue supplementary guidelines and limits, where it is deemed necessary.

#### *CRO and CFO*

In figure 1 the governance structure of risk, liquidity and capital management in Nordea Group is illustrated.



Figure 1: Governance of Risk, Liquidity Management and Capital Management

Within the Group, two units, Group Risk Management and Group Corporate Centre, are responsible for risk, capital, liquidity and balance sheet management. Group Risk Man-

agement, headed by the CRO, is responsible for the risk management framework and processes as well as the capital adequacy framework. Group Corporate Centre, headed by the CFO, is responsible for the capital policy, the composition of the capital base and for management of liquidity risk and SIIR.

Each customer area and product area is primarily responsible for managing the risks in its operations within the applicable limits and framework, including identification, control and reporting.

#### *2.2.2 Risk appetite*

The Board of Directors is ultimately responsible for the overall risk appetite for the Group and for setting the principles for how risk appetite is managed.

To support the Board of Directors in these responsibilities, Nordea Group will further develop the Group's risk appetite framework through 2011, allowing for easier aggregation and communication of the overall boundaries to risk taking, as well as making the process for top down risk appetite decisions and actions more straightforward. It is intended that the Risk Appetite framework considers all risks relevant to Nordea Group's business activities and on an aggregate level is represented in terms of solvency, earnings, liquidity, and operational and business risks.

This development work also extends to the processes for cascading risk appetite to segments and risk types within the portfolio, relevant customer areas and in relation to anticipated business plans. On this level Group Risk Management supports the customer areas with setting risk limits that reflect the overall risk appetite, set by the Board of Directors.

#### *2.2.3 Monitoring and reporting*

The "Policy for Internal Control and Risk Management in the Nordea Group" states that the management of risks includes all activities aiming at identifying, measuring, assessing, monitoring and controlling risks as well as measures to limit and mitigate consequences of the risks. Management of risks is proactive, emphasising training and risk awareness. Nordea maintains a high standard of risk management by means of applying available techniques and methodology to its own needs.

The control environment is based on the principles for segregation of duties and independence. Monitoring and reporting of risk is conducted on a daily basis for market and liquidity risk, on a monthly or quarterly basis for credit risk and on a quarterly basis for operational risk.

Risk reporting is regularly made to GEM and to the Board of Directors. The Board of Directors in each legal entity receives internal risk reporting which covers market, credit and liquidity risk per legal entity. Within the credit risk reporting, different portfolio analyses such as credit migration, current Probability of Default (PD) and stress testing are included.

Reporting of the internal capital required includes all types of risks and is reported regularly to the Risk Committee, ALCO, GEM and Board of Directors. Group Internal Audit makes an independent evaluation of the processes regarding risk and capital management in accordance with the annual audit plan.

#### *2.2.4 Different risk types*

There are different risk types which are described more in detail below in accordance with how they are structured within CRD.



### *Risk in pillar I*

In pillar I, which forms the base for the regulatory capital requirement, three risk types are covered: credit risk, market risk and operational risk.

- Credit risk is the risk of loss if counterparts fail to fulfil their agreed obligations and the pledged collateral does not cover the claims. The risk arises primarily from various forms of lending but also from guarantees and documentary credits. Furthermore, credit risk also include counterparty credit risk, transfer risk and settlement risk. The measurement of credit risk is based on the parameters; Probability of Default (PD), Loss Given Default (LGD) and Credit Conversion Factor (CCF).
- Market risk is the risk of loss in the market value of financial instruments, as a result of movements in financial market variables. The market risk exposure relates to interest rates, credit spreads, FX rates, equity prices and commodity prices.
- Operational risk is defined as the risk of direct or indirect loss, or damaged reputation resulting from inadequate or failed internal processes, from people and systems, or from external events. Legal and compliance risk as well as crime risk, project risk and process risk, including IT risk, constitute the main sub-categories to operational risk.

### *Risk in pillar II*

In pillar II, additional risks not included in the pillar I risks are measured and assessed. These are managed and measured although they are not included in the calculation of the minimum capital requirements. In the calculation of Economic Capital (EC) most of the pillar II risk is included as well as risk in the life insurance operations. Examples of pillar II risk types are liquidity risk, business risk, interest rate risk in the banking book and concentration risk:

- Liquidity risk is the risk of being able to meet liquidity commitments only at increased cost or, ultimately, being unable to meet obligations as they fall due. The liquidity risk management focuses on both short-term liquidity risk and long-term structural liquidity risk.
- Business risk represents the earnings volatility inherent in all business due to the uncertainty of revenues and costs due to changes in the economic and competitive environment. Business risk in the Economic Capital framework is calculated based on the observed volatility in historical profit and loss that is attributed to business risk.
- Interest rate risk in the banking book consists of exposures deriving from the balance sheet (mainly lending to public and deposits from public) and from Group Treasury's investment and liquidity portfolios.
- Pension risk is included in market risk in the Economic Capital framework and includes equity, interest rate and FX risk in the Nordea sponsored defined benefit pension plans.
- Life insurance risk is the impact from changes in mortality rates, longevity rates and disability rates.
- Real estate risk consists of exposure to owned and leased properties and is included in the market risk Economic Capital.

- Concentration risk is the credit risk related to the degree of diversification in the credit portfolio, i.e. the risk inherent in doing business with large customers or not being equally exposed across industries and regions. The concentration risk includes both single name concentration risk and sector/geography concentration risk and is included in the Economic Capital framework.

## 2.3 Roll-out plan

In June 2007, Nordea Group received approval by the financial supervisory authorities to use the Foundation Internal Rating Based (FIRB) approach for corporate and institution exposure classes in Denmark, Finland, Norway and Sweden. In December 2008 Nordea was approved of using the Internal Rating Based (IRB) approach for the Retail exposure class in Denmark, Finland, Norway and Sweden (with the exception for the Finance companies in all countries that were not applied for). The standardised approach is used for the remaining portfolios, such as foreign branches.

Nordea Group aims to continue the roll-out of the IRB approaches. The main focus is the development of advanced IRB for corporate customers in the Nordic area, including internal estimates of LGD and CCF. The standardised approach will continue to be used for smaller portfolios and new portfolios for which approved internal models are not yet in place.

Table 1

Specification over group undertakings consolidated/deducted from the Nordea Finland, 31 December 2010

	Number of shares	Book value EURm	Voting power of holding %	Domicile	Consolidation method
<i>Group undertakings included in the Nordea Bank Finland Group</i>					
Nordea Finance Finland Ltd	1,000,000	306	100	Espoo	purchase method
SIA promano Lat		20	100	Riga	purchase method
Oü Promano Est		10	100	Tallinn	purchase method
UAB Promano Lit		10	100	Vilnius	purchase method
SIA Realm		5	100	Riga	purchase method
Other companies		2			purchase method
<b>Total included in Nordea Bank Finland Group</b>		<b>353</b>			
<i>Over 10 % investments in credit institutions deducted from the capital base</i>					
Luottokunta		42	26	Helsinki	
NF Fleet		2	20	Espoo	
Other		2			
<b>Total investments in credit institutions deducted from the capital base</b>		<b>46</b>			

### 3. Capital position

*Nordea has maintained a strong capital positioning coherent with growth in lending. The capital ratios are stable and well above the targets in Nordea's capital policy.*

#### 3.1 Capital adequacy assessment

Nordea needs to keep sufficient capital to cover all risks taken over a foreseeable future. In order to do that the bank strives to attain efficient use of capital through active management of the balance sheet with respect to different asset, liability and risk categories. The goal is to enhance returns to the shareholders while maintaining a prudent risk and return relationship. Strong capital management supports the strategic visions and, in addition, provides resistance against unexpected losses that arise as a result of the risks taken within Nordea. The ICAAP, see chapter 9, is established to determine internal capital requirement that reflects the risks and to assess the adequacy of the capital.

#### 3.2 Regulatory capital requirement

In table 2, an overview of the capital requirements and the RWA as of December 2010 divided on the different risk types is presented in comparison with previous year. The credit risk comprises 87% of the risk. Operational risk accounts for 7% of the capital requirements and market risk comprises 6% of the capital requirements.

**Table 2**  
Capital requirements and RWA in Nordea Bank Finland

EURm	31 December 2010		31 December 2009	
	Capital requirement	RWA	Capital requirement	RWA
<b>Credit risk</b>	<b>5,238</b>	<b>65,470</b>	<b>5,163</b>	<b>64,540</b>
IRB	2,541	31,766	2,590	32,375
of which institution	446	5,581	517	6,460
of which corporate	1,718	21,477	1,707	21,338
of which retail	356	4,456	344	4,301
retail mortgage	158	1,980	154	1,931
other retail	151	1,888	148	1,846
retail SME	47	587	42	524
of which other	20	252	22	277
Standardised	2,696	33,704	2,573	32,165
of which sovereign	28	348	41	515
of which institution	1,005	12,560	1,112	13,894
of which corporate	1,270	15,875	987	12,342
of which retail	319	3,992	358	4,477
of which other	74	929	75	937
<b>Market risk</b>	<b>358</b>	<b>4,474</b>	<b>236</b>	<b>2,946</b>
of which trading book, VaR	119	1,482	103	1,287
of which trading book, non-VaR	239	2,992	133	1,659
of which FX, non-VaR	0	0	0	0
<b>Operational risk</b>	<b>421</b>	<b>5,258</b>	<b>368</b>	<b>4,606</b>
Standardised	421	5,258	368	4,606
<b>Sub total</b>	<b>6,016</b>	<b>75,203</b>	<b>5,767</b>	<b>72,092</b>
<b>Adjustment for transition rules</b>				
Additional capital requirement according to transition rules	0	0	0	0
<b>Total</b>	<b>6,016</b>	<b>75,203</b>	<b>5,767</b>	<b>72,092</b>

#### 3.3 Capital ratios

The growth in RWA has been supported by the slight increase in the capital base which has lead to sustained capital ratios during the year.

The transition rules create a need to manage the bank using a variety of capital measurements and capital ratios.

Table 3 shows that the regulatory transition rules comprise a floor on Nordea's capital requirement when compared to Basel II (pillar I) minimum requirements.

Nordea Bank Finland has subscribed on 10 February 2011 a subordinated loan issued by Nordea Bank Danmark. This transaction amounting to EUR 1,450m has only a minor effect on the RWA and capital adequacy ratios of Nordea Bank Finland.

**Table 3**

**Key capital adequacy figures in Nordea Bank Finland, EURbn**

	<b>31 December 2010</b>	<b>31 December 2009</b>
RWA including transition rules	75.2	72.1
RWA Basel II (pillar 1) excluding transition rules	75.2	72.1
Regulatory capital requirement including transition rules	6.0	5.8
Economic Capital	5.1	3.9
Capital base	10.7	10.5
Tier 1 capital	10.2	10.1
Core tier 1 capital	10.2	10.1
Tier 1 ratio including transition rules (%)	13.6%	14.0%
Tier 1 ratio excluding transition rules (%)	13.6%	14.0%
Core tier 1 ratio including transition rules (%)	13.6%	14.0%
Core tier 1 ratio excluding transition rules (%)	13.6%	14.0%
Capital ratio including transition rules (%)	14.3%	14.6%
Capital ratio excluding transition rules (%)	14.3%	14.6%
Capital adequacy quotient (Capital base /Regulatory capital requirement including transition rules)	1.8	1.8
Capital adequacy quotient (Capital base /Regulatory capital requirement excluding transition rules)	1.8	1.8

## 4. Credit risk

*During the year Nordea has, given the strong funding name and the capital strength, continued to focus on the successful execution of the ongoing organic growth strategy.*

*The macro economic development has strengthened the credit quality in terms of positive rating migration and improved average risk weights on existing as well as new customers.*

### 4.1 Identification of credit risk

#### 4.1.1 Roles and responsibilities in credit risk management

Group Credit is responsible for the credit risk management framework, consisting of policies, instructions and guidelines for the Group. Group Credit Control is responsible for controlling and monitoring the quality of the credit portfolio and the credit process. Each customer area and product area is primarily responsible for managing the credit risks in its operations within the applicable framework and limits, including identification, control and reporting.

Within the powers to act granted by the Board of Directors, credit risk limits are approved by decision-making authorities on different levels in the organisation (see figure 2). The credit decision-making structure has been adjusted starting in the fourth quarter 2010. The new Group Executive Management Credit Committee (GEM CC) has been added to decide on proposals containing major principle issues. The changes will only impact the Credit Committees on Group level (ECC and GCC), and not impact Credit Committees in the Customer areas.

The Board of Directors of Nordea has ultimate responsibility for limiting and monitoring the Group's risk exposure. The Board of Directors also has the ultimate responsibility for setting the targets for the capital ratios.

Responsibility for a credit exposure lies with a customer responsible unit. Customers are assigned a rating or scoring in accordance with the framework for quantification of credit risk.

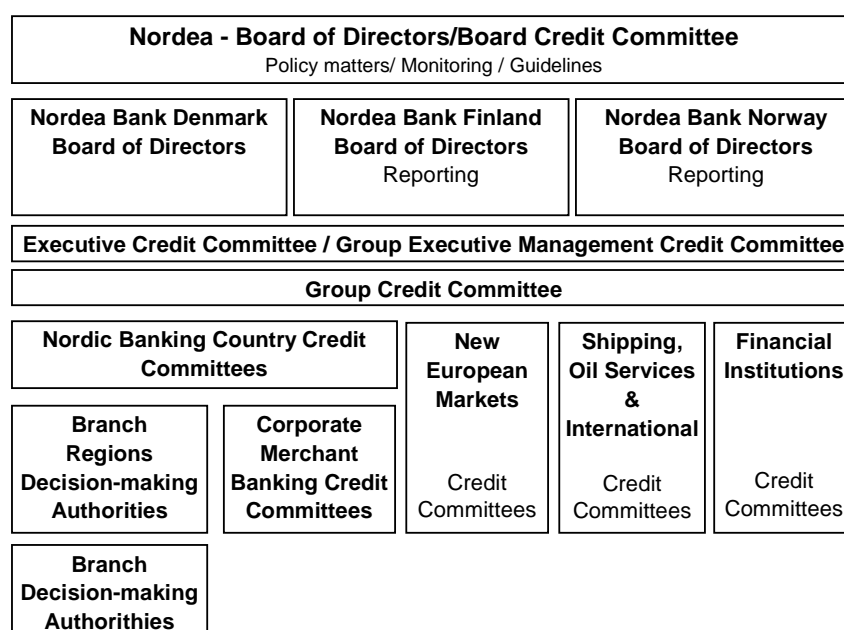


Figure 2: Credit decision making structure

#### 4.1.2 *Credit risk identification*

Credit risk is defined as the risk of loss if counterparts fail to fulfil their agreed obligations and the pledged collateral does not cover existing claims. The credit risks stem mainly from various forms of lending, and also from guarantees and documentary credits, such as letters of credit. The credit risk from guarantees and documentary credits arises from the potential claims on customers, for which Nordea has issued guarantees or documentary credits. Furthermore, credit risk may also include counterparty credit risk, transfer risk and settlement risk. Counterparty risk is the risk that the counterpart in an FX, interest, commodity, equity or credit derivatives contract defaults prior to maturity of the contract at which time the bank has a claim on the counterpart. Settlement risk is the risk of losing the principal on a financial contract, due to a counterpart's default during the settlement process. Further information about counterparty risk and settlement risk is available in section 4.2.6 in this report. Transfer risk is a credit risk attributable to the transfer of money from a country where a borrower is domiciled, and is affected by changes in the economic and political situation of the countries concerned.

Concentration risk in specific industries is followed by industry monitoring groups and managed through specific industry credit policies which are established for industries where at least two of the following criteria are fulfilled:

- Significant weight in the Nordea portfolio
- High cyclicity and/or volatility of the industry
- Special skills and knowledge required

There is usually a cap set for the Group's total exposure in such an industry. All industry credit policies are approved by the Executive Credit Committees and confirmed annually by the Board Credit Committee.

Corporate customers' environmental risks are taken into account in the overall risk assessment through the so-called Environmental Risk Assessment Tool (ERAT). Social and political risks are taken into account by the so-called Social and Political Risk Assessment Tool (SPRAT). SPRAT is applied as part of the corporate lending process, in parallel to the ERAT. For larger project finance transactions, the bank has adopted the Equator Principles, a financial industry benchmark for determining, assessing and managing social and environmental risk in project financing. The Equator Principles are based on the policies and guidelines of the World Bank and International Finance Corporation.

#### 4.1.3 *Decisions and monitoring of credit risk*

Decisions regarding credit risk limits for customers and customer groups are made by the relevant credit decision authorities on different levels within the Group. The responsibility for credit risk lies with the customer responsible unit, which continuously assesses customers' ability to fulfil their obligations and identifies deviations from agreed conditions and weaknesses in the customers' performance. In addition to building strong customer relationships and understanding each customer's financial position, monitoring of credit risk is based on all available information about the customer and macroeconomic factors. Information such as late payments data, behavioural scoring and rating migration are important parameters in the internal monitoring process. If new information indicates the need, the customer responsible unit must reassess the rating and assess whether the customer's repayment ability is threatened. If it is considered unlikely that the customer will be able to repay its debt obligations, for example the principal, interest, or fees, and the situation cannot be satisfactorily remedied, the customer must be tested for impairment. See section 4.1.5 for more details on impairment.

In case credit weakness is identified in relation to a customer exposure, such exposure is assigned special attention in terms of review of the risk. In addition to continuous monitoring, an action plan is established outlining how to minimise a potential credit loss. If necessary, a special team is set up to support the customer responsible unit. Nordea has a project organisation for handling work-out corporate customers. Individual deal-teams

including relevant specialists are established for larger work-out cases. The credit organisation and other specialist units support customer responsible units in handling smaller work out customers. The follow-up of individual work-out cases is part of the quarterly risk review process. In this process the impairment of individual customers and customer groups is assessed and the actions related to handling of work-out customers are reviewed and followed up.

#### *4.1.4 Credit risk mitigation and collateral policy*

All credit risk mitigations are an inherent part of the credit decision process. In every credit decision and review the valuation of collateral is considered as well as the adequacy of covenants and other risk mitigations.

Pledging of collateral is the main credit risk mitigation method. In corporate exposure, the main collateral types are real estate mortgages, floating charges and leasing objects. Collateral coverage is higher for exposure to financially weaker customers than for those which are financially strong.

Local instructions emphasise that national practice and routines are timely and prudent in order to ensure that collateral items are controlled by the bank and that loans and pledge agreements as well as the collateral are legally enforceable. The bank is therefore entitled to liquidate collateral in event of the obligor's financial distress and the bank can claim and control cash proceeds from a liquidation process. To a large extent national standard loan and pledge agreements are used, thus ensuring legal enforceability.

The following collateral types are most common in Nordea:

- Residential real estate, commercial real estate and land situated in Nordea's home markets
- Other tangible assets such as machinery, equipment, vehicles, vessels, aircrafts and trains
- Inventory, receivables (trade debtors) and assets pledged under floating charge
- Financial collateral such as listed shares, listed bonds and other specific securities
- Deposits
- Guarantees and letters of support
- Insurance policies (capital assurance with surrender value)

For each type, more specific instructions are added to the general valuation principle. A specific maximum collateral ratio is set for each type. Restrictions for acceptance refer in general to the assessment of the collateral value rather than the use of the collateral for credit risk mitigation as such. In the RWA calculations, the collateral must fulfil certain eligibility criteria.

Regarding large exposure, syndication of loans is the primary tool for managing concentration risk while credit risk mitigation by the use of credit default swaps has been applied to a limited extent.

Covenants in credit agreements do not substitute collateral but may be of great help as a complement to both secured and unsecured exposure. All exposure of substantial size and complexity includes appropriate covenants. Financial covenants are designed to react to early warning signs and are carefully followed up.

#### *4.1.5 Definition and methodology of impairment*

Weak and impaired exposure is closely and continuously monitored and reviewed at least quarterly in terms of current performance, business outlook, future debt service capacity and the possible need for provisions. An exposure is impaired, and a provision is recognised, if there is objective evidence, based on loss events or observable data, that there is impact on the customer's future cash flow to the extent that full repayment is unlikely, collateral included. The size of the provision is equal to the estimated loss being the difference between the book value and the discounted value of the future cash flow, includ-

ing the value of pledged collateral. Impaired exposure can be either performing or non-performing. Impaired exposure is treated as in default when determining default probability. Exposure that is past due more than 90 days is automatically regarded as in default, and reported as non-performing and impaired or not impaired depending on the deemed loss potential. In addition to individual impairment testing of all individually significant customers, collective impairment testing is performed for groups of customers not identified individually as impaired. Collective impairment is based on the migration of rated and scored customers in the credit portfolio. The assessment of collective impairment relates to both up and down-ratings of customers, as well as new customers and those leaving the portfolio. Moreover, customers going to and from default affect the calculation. Collective impairment is assessed quarterly for each legal unit.

The rationale for this two-step procedure with both individual and collective assessment is to ensure that all incurred losses are accounted for up to and including each balance sheet day. Impairment losses recognised for a group of loans represent an interim step pending the identification of impairment losses for an individual customer. There is an independent credit control organisation with the overall responsibility to control and monitor quality in the credit portfolio, the credit process and ensuring that all incurred losses are covered by adequate allowances.

#### *4.1.6 Link between credit risk exposure and balance sheet in annual report*

Credit risk can be measured, monitored and segmented in different ways. The loan portfolio is the major part of the credit portfolio and the basis for impaired loans and loan losses. This section discloses the link between the loan portfolio as defined in accordance with accounting standards and exposure as defined in accordance with the CRD.

The main differences are outlined in this section to illustrate the link between the different reporting methods. A detailed definition of exposure classes used in the capital adequacy calculations is shown in appendix 11.3.

In this report, tables containing exposure are presented as Exposure at Default (EAD) for IRB exposure and Exposure value for standardised exposure if nothing else is stated. It is based on the exposure amount on which the RWA is calculated. This amount differs from the original exposure, which is the exposure before taking into account substitution effects stemming from credit risk mitigation and credit conversion factors for off-balance exposure.

Credit risk exposure presented in this report, in accordance with the CRD, is divided between exposure classes, in which each exposure class is divided into the following exposure types:

- On-balance-sheet items
- Off-balance-sheet items (e.g. guarantees and unutilised amounts of credit facilities)
- Securities financing (e.g. reversed repurchase agreements)
- Derivatives

Items presented in the annual report, in accordance to the accounting standards, are divided as follows:

- On-balance-sheet items (loans to credit institutions and loans to the public, including reversed repurchase agreements)
- Off-balance-sheet items (e.g. guarantees and unutilised amounts of credit facilities)
- Derivatives (positive fair value)
- Treasury bills and interest-bearing securities



## 4.2 Capital requirement for credit risk

### 4.2.1 Development of exposure and RWA

This chapter aims to present an overview as well as an in-depth description of the distribution of the credit risk portfolio. For more detailed information of the principles for RWA calculations, under the IRB and standardised approaches, see appendix 11.4.

In table 4, the original exposure, the exposure, the average risk weight expressed as percentages, RWA and capital requirement, are distributed by exposure class. The IRB exposure classes contain the portfolios for which Nordea has been approved.

The retail portfolio is divided into three sub-segments; mortgage (credit risk exposure to private individuals, pledged by real estate), other retail (exposure to private individuals, except mortgage) and SME (exposure to small and medium-sized enterprises, including loans secured by real estate collateral).

For the remaining portfolios the standardised approach exposure classes are used. Exposures in foreign branches (e.g. Baltic countries, New York, London), and small subsidiaries are calculated according to the standardised approach. Furthermore acquisitions of new portfolios are treated according to the standardised approach until approval has been given to include them in the IRB approach by the financial supervisory authorities.

Some exposure classes have been merged in the table, due to low exposure in these exposure classes.

**Table 4**

**Capital requirement for credit risk in Nordea Bank Finland, 31 December 2010**

EURm	Original exposure	Exposure	Average risk weight	RWA	Capital requirement
<b>IRB exposure classes</b>					
Institutions	27,915	25,996	21%	5,581	446
Corporates	72,742	37,760	57%	21,477	1,718
Retail	34,070	32,103	14%	4,456	356
- of which mortgage	24,451	24,118	8%	1,980	158
- of which other retail	8,468	7,046	27%	1,888	151
- of which SME	1,152	939	63%	587	47
Other non-credit obligation assets	315	253	100%	253	20
<b>Total IRB approach</b>	<b>135,041</b>	<b>96,111</b>	<b>33%</b>	<b>31,766</b>	<b>2,541</b>
<b>Standardised exposure classes</b>					
Central government and central banks	14,879	16,384	2%	305	24
Regional governments and local authorities	3,617	2,295	2%	43	3
Institutions	55,180	54,505	23%	12,560	1,005
Corporates	21,344	15,875	100%	15,875	1,270
Retail	8,700	4,548	75%	3,411	273
Exposures secured by real estate	1,705	1,660	35%	581	46
Other <sup>1</sup>	3,831	3,587	26%	929	74
<b>Total standardised approach</b>	<b>109,257</b>	<b>98,854</b>	<b>34%</b>	<b>33,704</b>	<b>2,696</b>
<b>Total</b>	<b>244,298</b>	<b>194,966</b>	<b>34%</b>	<b>65,470</b>	<b>5,238</b>

<sup>1</sup> Administrative bodies and non-commercial undertakings, multilateral developments banks, past due items, short term claims, covered bonds and other items.

#### 4.2.2 Exposure type by exposure class

In table 5, the exposure is split by exposure classes and exposure types.

**Table 5**  
**Exposure classes split by exposure type in Nordea Bank Finland, 31 December 2010**

EURm	On balance sheet items	Off balance sheet items	Securities financing	Derivatives	Total
<b>IRB exposure classes</b>					
Institutions	7,334	1,084	322	17,256	25,996
Corporates	18,794	11,585	0	7,381	37,760
Retail	28,967	3,080	0	56	32,103
- of which mortgage	24,021	97	0	0	24,118
- of which other retail	4,222	2,792	0	32	7,046
- of which SME	724	191	0	24	939
Other non-credit obligation assets	251	2	0	0	253
<b>Total IRB approach</b>	<b>55,345</b>	<b>15,750</b>	<b>322</b>	<b>24,693</b>	<b>96,111</b>
<b>Standardised exposure classes</b>					
Central governments and central banks	14,911	402	0	1,071	16,384
Regional governments and local authorities	1,623	98	0	574	2,295
Institutions	49,559	388	36	4,522	54,505
Corporates	12,470	3,404	0	1	15,875
Retail	4,461	86	0	1	4,548
Exposures secured by real estate	1,660	0	0	0	1,660
Other <sup>1</sup>	3,269	25	0	293	3,587
<b>Total standardised approach</b>	<b>87,954</b>	<b>4,403</b>	<b>36</b>	<b>6,461</b>	<b>98,854</b>
<b>Total exposure</b>	<b>143,299</b>	<b>20,153</b>	<b>359</b>	<b>31,155</b>	<b>194,966</b>

<sup>1</sup> Administrative bodies and non-commercial undertakings, multilateral developments banks, past due items, short-term claims, covered bonds and other items.

The average exposure in 2010 is presented in table 6.

**Table 6**  
**Exposure classes split by exposure type in Nordea Bank Finland, Average exposure during 2010**

Average exposure EURm	On balance sheet items	Off balance sheet items	Securities financing	Derivatives	Total
<b>IRB exposure classes</b>					
Institutions	5,557	1,085	81	19,033	25,755
Corporates	18,681	11,149	0	8,100	37,930
Retail	28,190	2,989	0	66	31,245
- of which mortgage	23,208	88	0	0	23,296
- of which other retail	4,265	2,711	0	40	7,016
- of which SME	717	189	0	26	932
Other non-credit obligation assets	285	10	0	0	295
<b>Total IRB approach</b>	<b>52,712</b>	<b>15,233</b>	<b>81</b>	<b>27,199</b>	<b>95,225</b>
<b>Standardised exposure classes</b>					
Central governments and central banks	10,057	404	0	895	11,356
Regional governments and local authorities	1,574	101	0	667	2,343
Institutions	51,667	305	21	2,049	54,043
Corporates	10,938	2,864	0	2	13,804
Retail	5,354	101	0	1	5,456
Exposures secured by real estate	727	0	0	0	727
Other <sup>1</sup>	2,015	11	0	148	2,174
<b>Total standardised approach</b>	<b>82,332</b>	<b>3,787</b>	<b>22</b>	<b>3,762</b>	<b>89,903</b>
<b>Total exposure</b>	<b>135,044</b>	<b>19,020</b>	<b>102</b>	<b>30,961</b>	<b>185,127</b>

<sup>1</sup> Administrative bodies and non-commercial undertakings, multilateral developments banks, past due items, short-term claims, covered bonds and other items.

### 4.2.3 Exposure by geography

In table 7, exposure is split by geographical areas, based on where the credit risk is referable.

Table 7

Exposure split by geography and exposure classes in Nordea Bank Finland, 31 December 2010

EURm	Nordic countries	- of which Denmark	- of which Finland	- of which Norway	- of which Sweden	Baltic countries	Poland	Russia	Other	Total
<b>IRB exposure classes</b>										
Institution	25,996	0	25,996	0	0					25,996
Corporate	37,760	0	37,760	0	0					37,760
Retail	32,103	0	32,103	0	0					32,103
- of which mortgage	24,118	0	24,118	0	0					24,118
- of which other retail	7,046	0	7,046	0	0					7,046
- of which SME	939	0	939	0	0					939
Other non-credit obligation assets	253	0	253	0	0					253
<b>Total IRB approach</b>	<b>96,111</b>	<b>0</b>	<b>96,111</b>	<b>0</b>	<b>0</b>					<b>96,111</b>
<b>Standardised exposure classes</b>										
Central governments and central banks	15,433		15,433			685			266	16,384
Regional governments and local authorities	2,145		2,145			150				2,295
Institution	50,706		50,706			121	64		3,615	54,505
Corporate	1,311		1,311			4,385	114		10,066	15,875
Retail	2,968		2,968			1,490			89	4,548
Exposures secured by real estates	434		434			1,226				1,660
Other <sup>1</sup>	3,233	0	3,233			284	36		35	3,587
<b>Total standardised approach</b>	<b>76,231</b>	<b>0</b>	<b>76,231</b>	<b>0</b>	<b>0</b>	<b>8,340</b>	<b>214</b>	<b>0</b>	<b>14,071</b>	<b>98,854</b>
<b>Total exposure</b>	<b>172,342</b>	<b>0</b>	<b>172,342</b>	<b>0</b>	<b>0</b>	<b>8,340</b>	<b>214</b>	<b>0</b>	<b>14,071</b>	<b>194,966</b>

<sup>1</sup> Administrative bodies and non-commercial undertakings, multilateral developments banks, past due items, short-term claims, covered bonds, and other items. Associated companies not included in exposure.

### 4.2.4 Exposure by industry

In table 8 the total exposure is split by industries and by the main exposure classes. The industry breakdown follows the Global Industries Classification Standard (GICS) and is based on NACE codes (i.e. statistical classification of economic activities in the European community).

Table 8

Exposure split by industry group in Nordea Bank Finland, 31 December 2010

EURm	Internal rating based approach				Standardised approach		
	Institutions	Corporates	Retail	Other	Central governments and central banks	Regional governments and local authorities	Other <sup>1</sup>
Retail mortgage			24,118				1,660
Other retail			7,046				4,548
Central and local governments					6,542	2,295	0
Banks	21,496				9,842		53,947
Construction and engineering		1,402	120				257
Consumer durables (cars, appliances etc)		990	22				881
Consumer staples (food, agriculture etc)		1,638	37				909
Energy (oil, gas etc)		641	0				383
Health care and pharmaceuticals		372	36				316
Industrial capital goods		2,247	10				999
Industrial commercial services		2,919	120				503
IT software, hardware and services		496	16				298
Media and leisure		646	89				181
Metals and mining materials		531	4				104
Paper and forest materials		1,669	9				176
Real estate management and investment		7,297	119				902
Retail trade		3,006	204				615
Shipping and offshore		1,134	3				3,845
Telecommunication equipment		588	1				9
Telecommunication operators		824	2				31
Transportation		902	65				518
Utilities (distribution and production)		2,984	5				219
Other financial companies	4,500	3,190	17				3,468
Other materials (chemical, building materials etc)		2,922	42				437
Other		1,362	18	253			4,969
<b>Total exposure</b>	<b>25,996</b>	<b>37,760</b>	<b>32,103</b>	<b>253</b>	<b>16,384</b>	<b>2,295</b>	<b>80,175</b>

<sup>1</sup> Administrative bodies and non-commercial undertakings, multilateral developments banks, standardised institution, standardised corporate, standardised retail, standardised exposures secured by real estates, past due items, short term claims, covered bonds and other items.

*Specification of exposure against central government and central banks*

Nordea applies the standardised approach for exposure to central government and central banks. In this approach, the external rating from an eligible rating agency is converted to the credit quality step (the mapping is defined by the financial supervisory authorities), which corresponds to a fixed risk weight. Nordea uses Standard & Poor's as eligible rating agency. In table 9, the central government and central bank exposure distributed by the credit quality steps is available.

**Table 9****Exposures to central governments and central banks in Nordea Bank Finland, 31 December 2010**

EURm			
Standard & Poor's rating	Credit quality step	Risk weight	Exposure
AAA to AA-	1	0%	15,969
A+ to A-	2	20%	19
BBB+ to BBB-	3	50%	191
BB+ and below, or without rating	4 to 6 or blank	100-150%	206
<b>Total</b>			<b>16,384</b>

**4.2.5 Specification of off-balance exposure**

An off-balance exposure amount does not contain the same risk as an on-balance exposure amount. The off-balance amount can be reduced to a value that carries the risk of a corresponding on-balance amount. This is done with a CCF, which is a percentage value (i.e. 0-100%) that is multiplied with the committed undrawn off-balance amount. For the off balance items, the nominal value of a guarantee is applied with a CCF for calculating the exposure. The CCF factor is for instance 50% or 100% depending of the type of guarantee, i.e. lowering the risk weights compared with the same exposure on balance. Credit commitments and unutilised amounts are part of the external commitments that has not been utilised. This amount forms the calculation base depending on approach, product type and whether the utilised amounts are unconditionally cancellable or not.

The internal CCF model used for retail IRB is built on a product based approach. There are three explanatory variables that determine which CCF value an off-balance exposure will receive. The three variables are: customer type, product type/CCF pool and country in which the reporting is made. The CCF is based on own estimates on expected total exposure at the time of default.

Table 10 shows the weighted average CCF for the retail IRB exposure.

**Table 10****CCF in Nordea Bank Finland, 31 December 2010**

	Exposure after substitution effects	Exposure	CCF
Retail	4,054	3,080	76%
- of which mortgage	430	97	23%
- of which other retail	3,268	2,792	85%
- of which SME	357	191	53%

#### 4.2.6 Counterparty credit risk

Counterparty credit risk is the risk that Nordea's counterpart in a FX, interest, commodity, equity or credit derivative contract defaults prior to maturity of the contract and that Nordea at that time has a claim on the counterpart. Counterparty credit risk can also exist in repurchasing agreements and other securities financing transactions.

Derivative contracts are financial instruments, such as futures, forwards, swaps or options that derive their value from underlying interest rates, currencies, equities, credit spreads or commodity prices. The derivative contracts are often traded over the counter (OTC), i.e. the terms connected to the specific contract are on individual terms agreed with the counterpart.

Nordea enters into derivative contracts based on customer demand, both directly and in order to hedge positions that arise through such activities. Nordea, through Group Treasury, also uses interest rate swaps and other derivatives in its hedging activities of the assets and liability mismatches in the balance sheet. Furthermore, Nordea may, within clearly defined restrictions, use derivatives to take open positions in its operations. Derivatives affect counterparty risk and market risk as well as operational risk.

Counterparty credit risk is subject to credit limits like other credit exposure and is treated accordingly.

##### 4.2.6.1 Pillar I method for counterparty credit risk

Nordea uses the so called marked-to-market method to calculate the exposure for counterparty credit risk in accordance with the credit risk framework in CRD, i.e. the sum of current exposure (replacement cost) and potential future exposure. The potential future exposure is an estimate, which reflects possible changes in the market value of the individual contract during the remaining lifetime, and is measured as the notional principal amount multiplied by the so called add-on factor. The size of the add-on factor depends on the contract's remaining lifetime and the underlying asset. Netting of potential future exposure on contracts within the same legally enforceable netting agreement is done as a function of the gross potential future exposure of all the contracts and the quotient between the net current exposure and the gross current exposure.

In table 11, the exposure as well as the RWA split by the exposure classes are shown. As stated above, exposure equals the sum of current exposure and potential future exposure and as of December 2010 the potential future exposure is the major part of the exposure.

**Table 11**  
**Counterparty risk by exposure class<sup>1</sup> in Nordea Bank Finland**

EURm	31 December 2010	
	Exposure	RWA
<b>IRB exposure classes</b>		
Institution	17,256	3,945
Corporate	7,381	3,828
Retail	56	28
<b>Total IRB approach</b>	<b>24,693</b>	<b>7,801</b>
<b>Standardised exposure classes</b>		
Central government and central banks	1,071	68
Other	5,391	943
<b>Total standardised approach</b>	<b>6,461</b>	<b>1,010</b>
<b>Total exposure</b>	<b>31,155</b>	<b>8,811</b>

<sup>1</sup> Exposures are after closeout netting and collateral agreements and only include derivatives

#### 4.2.6.2 Counterparty credit risk for internal credit limit purposes

Counterparty credit risk for internal credit limit purposes is calculated using an alternative method which differs from the pillar I method with respect to add-on factors, treatment of collaterals, netting principles and calculation of total exposure. For example, in counterparty credit risk exposure for regulatory capital, the add-ons are fixed and decided by supervisors whereas the internal add-ons in Nordea are internally derived and may change over time. Also, in calculation of regulatory exposure for counterparty credit risk, collateral affects the LGD value in the IRB formula and not the level of exposure. However, for internal limit purposes the collateral affects the level of exposure instead, which results in different exposure levels when comparing the two methods.

In table 12, the current exposure and potential future exposure are presented for different type of customers.

**Table 12**

**Counterparty risk exposure in Nordea Bank Finland, 31 December 2010**

EURm	Current exposure	Potential future exposure	Total credit risk
Public entities	476	2,386	2,227
Institutions	1,590	17,936	17,984
Corporates	4,517	8,869	12,095
<b>Total</b>	<b>6,583</b>	<b>29,191</b>	<b>32,306</b>

As of December 2010, the current net exposure was EUR 6,583m and the potential future exposure was EUR 29,191m in the internal counterparty risk framework in Nordea Bank Finland. The rise in the potential future exposure by 24% since December 2009 indicates an increase in the business volumes.

On traded OTC contracts, Nordea performs fair value adjustments which are adjust the profit/loss of these contracts by taking into account the cost of hedging them in the secondary market. This cost of hedging is either based directly on market prices or on a theoretical calculation based on the credit rating of the counterparty.

#### 4.2.6.3 Mitigation of counterparty credit risk exposure

To reduce the exposure towards single counterparties, risk mitigation techniques are widely used in Nordea. The most common is the use of closeout netting agreements, which allow Nordea to net positive and negative replacement values of contracts under the agreement in the event of default of the counterparty. In addition, Nordea also mitigates the exposure towards large banks, hedge funds and institutional counterparties by an increasing use of financial collateral agreements, where collateral on daily basis is placed or received to cover the current exposure. The collateral consists mostly of cash and high quality bonds.

In table 13, information of how the counterparty risk exposure is reduced with risk mitigation techniques is available.

**Table 13**

**Mitigation of counterparty risk exposure due to closeout netting and collateral agreements in Nordea Bank Finland, 31 December 2010**

EURm	Current Exposure (gross)	Reduction from closeout netting agreements	Reduction from held collateral	Current Exposure (net)
<b>Total</b>	<b>96,710</b>	<b>86,845</b>	<b>3,282</b>	<b>6,583</b>

As of December 2010 Nordea Bank Finland had 627 (481) financial collateral agreements. The effects of closeout netting and collateral agreements are considerable, as 93% (92%) of the current exposure (gross) was eliminated by the use of these risk mitigation techniques.

Nordea's financial collateral agreements do not normally contain any trigger-dependent features, for example rating triggers. For a few agreements the minimum expo-

sure level for further posting of collateral will be lowered in the event of a downgrading. Separate credit guidelines are in place for handling of the financial collateral agreements.

Finally, Nordea also uses a risk mitigation technique based on a condition in some of the long-term derivative contracts, which gives the option to terminate a contract at a specific time or on the occurrence of specified credit-related events.

#### 4.2.6.4 Settlement risk

Settlement risk is a type of credit risk arising during the process of settling a contract or execution of a payment.

The risk amount is the principal of the transaction, and a loss could occur if a counterpart were to default after Nordea has given irrevocable instructions for a transfer of a principal amount or security, but before receipt of the corresponding payment or security has been finally confirmed.

The settlement risk on individual counterparts is restricted by settlement risk limits. Each counterpart is assessed in the credit process and clearing agents, correspondent banks and custodians are selected with a view of minimising settlement risk.

Nordea is a shareholder of, and participant in, the global FX clearing system CLS (Continuous Linked Settlement), which eliminates the settlement risk of FX trades in those currencies and with those counterparts that are eligible for CLS clearing.

#### 4.2.7 Equity holdings

In the exposure class “Other items”, Nordea bank Finland's equity holdings in the banking book are included. Investments in companies where Nordea holds over 10% of the capital are deducted from the capital base (see table 1) and hence not included in the “other items”.

In table 14, the equity holdings outside the trading book are grouped based on the intention of the holding. In the investment portfolio, holdings in private equity funds are included in the amount of EUR 8m. All equities in the table are booked at fair value. The evidence of published price quotations in an active market is the best evidence of fair value and when they exist they are used to measure the value of financial assets and financial liabilities. For equities with no published price quotations, internal valuation techniques are used to establish fair value. Table 14 shows to what extent published price quotations are used.

**Table 14**  
**Equity holding outside trading book in Nordea Bank Finland, 31 December 2010**

EURm	Book value	Fair value	Unrealised gains/losses	Realised gains/losses	Capital requirement
Investment portfolio <sup>1)</sup>	10	10	0	0	1
Other <sup>2)</sup>	14	14	3	0	1
<b>Total</b>	<b>24</b>	<b>24</b>	<b>3</b>	<b>0</b>	<b>2</b>

<sup>1)</sup> Of which listed equity holdings 0

<sup>2)</sup> Of which listed equity holdings 3

### 4.3 Rating, collateral and maturity distribution

The parameters PD, LGD and maturity are central as part of calculating the RWA. In this section the components are described with respect to development of rating distribution and migration, LGD development and maturity distribution. The final section analyses how these parameters are estimated and validated.

### 4.3.1 Rating and scoring

The common denominator of the rating and scoring is the ability to predict defaults and rank customers according to their default risk. They are used as integrated parts of the credit risk management and decision-making process, including:

- The credit approval process
- Calculation of Risk Weighted Amounts (RWA)
- Calculation of economic capital and Expected Loss (EL)
- Monitoring and reporting of credit risk
- Performance measurement using the Economic Profit (EP) framework
- Collective impairment assessment

While rating is used for corporate and institution exposure, scoring is used for retail exposure.

A rating is an estimate that exclusively reflects the quantification of the repayment capacity of the customer, i.e. the risk of customer default. The rating scale in Nordea consists of 18 grades from 6+ to 1- for non-defaulted customers and 3 grades from 0+ to 0- for defaulted customers. The repayment capacity of each rating grade is quantified by a one year PD. Rating grades 4- and better are comparable to investment grade as defined by external rating agencies such as Moody's and Standard & Poor (S&P). Rating grades 2+ and lower are considered as weak or critical, and require special attention.

The risk grade master scale used for scored customers in the Retail portfolio consists of 18 grades, named A+ to F-. In table 15, the mapping from the internal rating scale to the S&P's rating scale, using condensed scales, is shown.

**Table 15**

**Indicative mapping between  
internal rating and Standard  
& Poor's**

Rating	
Internal	Standard & Poor's
6+, 6, 6-	AAA to AA
5+, 5, 5-	A
4+, 4, 4-	BBB
3+, 3, 3-	BB
2+, 2, 2-	B
1+, 1, 1-	CCC to C
0+, 0, 0-	D

The mapping of the internal ratings to the S&P's rating scale is based on a predefined set of criteria, such as comparison of default and risk definitions. The mapping does not intend to indicate a fixed relationship between Nordea's internal rating grades and S&P's rating grades since the rating approaches differ. On a customer level the mapping does not always hold and, moreover, the mapping may change over time.

Ratings are assigned in conjunction with credit proposals and the annual review of the customers, and approved by the credit committees. However, a customer is downgraded as soon as new information indicates a need for it. The consistency and transparency of the ratings are ensured by the use of rating models. A rating model is a set of specified and distinct rating criteria which, given a set of customer characteristics, produces a rating. It is based on the predictability of customers' future performance based on their characteristics.



Nordea has decided upon a differentiation of rating models to better reflect the risk involved for customers with different characteristics. Hence, rating models have been developed for a number of general as well as specific segments, e.g. real estate management and shipping. Different methods ranging from purely statistical, using internal data to expert-based methods, depending of the segment in question, have been used when developing the rating models. The models are in general based on an overall framework, in which financial and quantitative factors are combined with qualitative factors.

Scoring models are pure statistical methods to predict the probability of customer default. The models are used in the household segment as well as for small corporate customers. Bespoke behavioural scoring models, developed on internal data, are used to support both the credit approval process, e.g. automatic approvals or decision support, and the risk management process, e.g. "early warning" for high risk customers and monitoring of portfolio risk levels. As a supplement to the behavioural scoring models also bureau information is used in the credit process. The internal behaviour scoring models are used to identify the PDs, in order to calculate the economic capital and RWA for customers.

Nordea has established an internal validation process in accordance with the CRD requirements with the purpose of ensuring and improving the performance of the models, procedures and systems and to ensure the accuracy of the PD estimates.

The rating and scoring models are validated annually and the validation includes both a quantitative and a qualitative validation. The quantitative validation includes statistical tests of the models' discriminatory power, i.e. the ability to distinguish default risk on a relative basis, and cardinal accuracy, i.e. the ability to predict default levels.

#### 4.3.2 Rating distribution

In figures 3 to 5, the exposure is distributed over the internal risk classification scale for the exposure in the IRB exposure classes.

##### 4.3.2.1 Rating distribution of the IRB institution portfolio

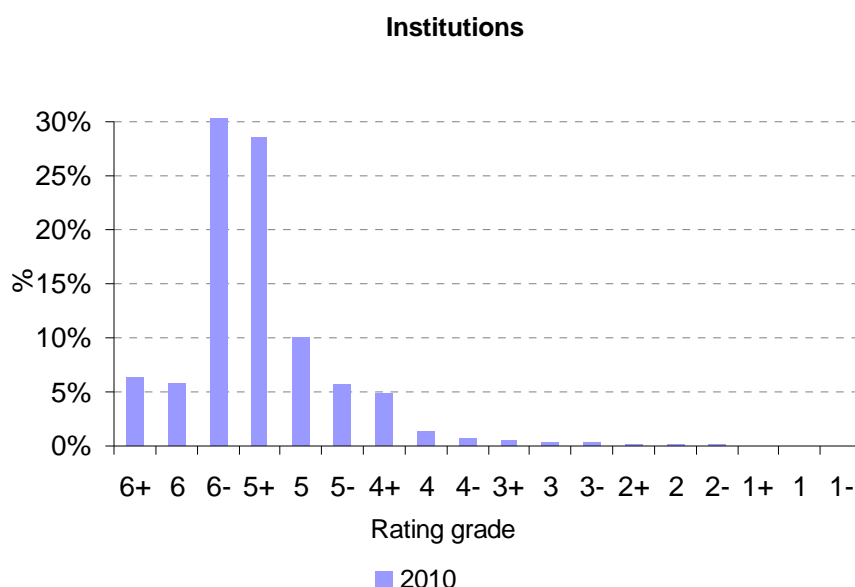


Figure 3: Rating distributions for Nordea Bank Finland, IRB Institution

#### 4.3.2.2 Rating distribution of the IRB corporate portfolio

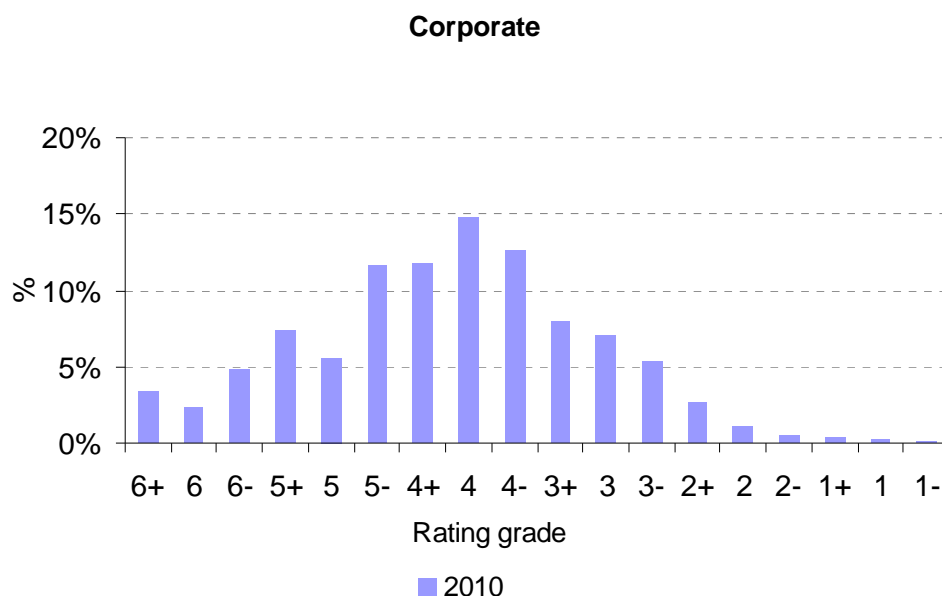


Figure 4: Rating distribution for Nordea Bank Finland, IRB Corporate

#### 4.3.2.3 Scoring distribution of the IRB retail portfolio

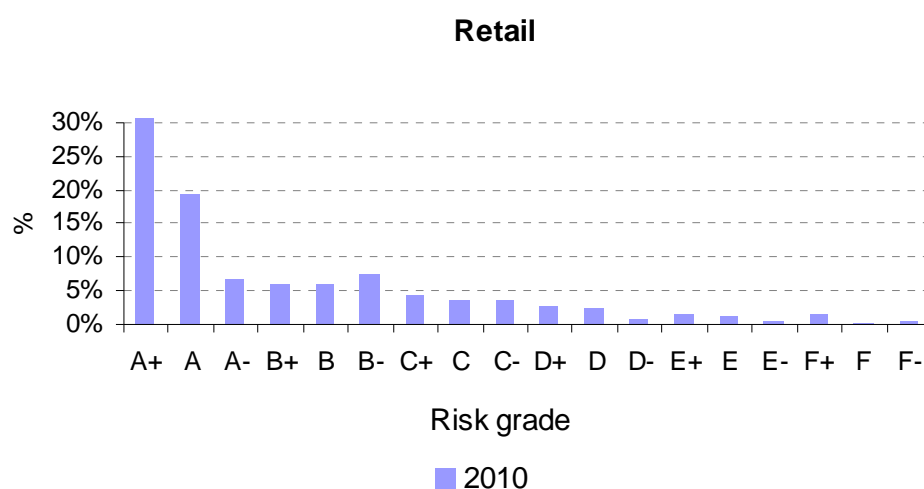


Figure 5: Rating distribution for Nordea Bank Finland, IRB Retail

#### 4.3.3 Point-In-Time vs. Through-The-Cycle

In a Point-In-Time (PIT) process, an internal rating reflects an assessment of the borrower's current condition and/or most likely future condition over the course of the chosen time horizon. The internal rating changes as the borrower's condition changes over the course of the credit/business cycle. A Through-The-Cycle (TTC) process requires assessment of the borrower's risk under a longer period of time. In this case, a borrower's rating would tend to stay the same over the course of the credit/business cycle.

The creditworthiness indicated by a purely TTC risk classification system would correspond to the long-term average credit risk, which manifests itself in no migration be-

tween rating grades. A purely PIT risk classification system, on the other hand, would only represent the credit risk at the point when the risk assessment was made which leads to higher migration compared to a TTC system.

Nordea currently employs a hybrid risk classification system that is neither purely TTC nor purely PIT. The PD estimates for the risk grades remain fairly stable over time, but migration between risk grades is expected which affects the average PDs and hence RWA.

Nordea's rating system (used in the exposure classes corporate and institution) is balanced between PIT and TTC. The main factors influencing the rating produced by the models are the financial factors supplemented by qualitative factors into a total risk assessment. The financial factors are based on the last audited financial statements and will therefore vary as the overall business conditions fluctuate. Adjustments and overrides in ratings can be made when the financial factors do not reflect the future repayment capacity. The qualitative factors are based on the subjective view of the expert with respect to management, industry outlook, products etc. The qualitative factors are seen as more forward-looking, but assess the risk of a borrower based on the current state and not on a worst-case scenario. Therefore, the qualitative factors can be viewed as more long term.

Nordea's scoring models (used in the exposure class retail) are assessed to be relatively close to PIT. The scorecards, or score models, are built to reflect the latest available information and a new score is calculated each month. This will guarantee that the score models give a score reflecting a customer's monthly performance status and behaviour. The model is, however not fully PIT due to that there are some elements that have a lag and do not meet the requirements for 100% PIT.

Nordea's internal data is used when determining estimates of PD. However, the time series used are representing a relatively recent period and the observed values are adjusted in order to represent long term average estimates. For PDs this adjustment intends to create a Margin of Conservatism and is based on the number of observations as well as on the long-term default frequency observed in Nordea's markets.

#### *4.3.4 Migration*

The rating/scoring distribution changes over time intervals mainly due to three factors:

1. the rating distribution for new customers and customers leaving the bank differs from the rating distribution of the old and remaining customers
2. increased or decreased exposure to existing customers
3. changes in rating/scoring for existing customers (migration). Migration is for instance affected by macroeconomic development, industry sector developments, changes in business opportunities and development in financial statements of the customers and other company related factors. Scoring migration is affected by among other macroeconomic development and timely payments.

#### *4.3.5 Loss Given Default*

In table 16, the exposure per exposure class secured by eligible collateral, guarantees and credit derivatives is shown. The table presents a split between exposure classes subject to the IRB approach and exposure classes subject to the standardised approach.

Table 16

Exposure secured by collaterals, guarantees and credit derivatives in Nordea Bank Finland, 31 December 2010

EURm	Original exposure	Exposure	of which secured by guarantees and credit derivatives	of which secured by collateral	Average weighted LGD
<b>IRB exposure classes</b>					
Institution	27,915	25,996	113	2,562	33.4%
Corporate	72,742	37,760	2,513	9,145	42.6%
Retail	34,070	32,103	993	25,101	15.9%
- of which mortgage	24,451	24,118		24,118	10.9%
- of which other retail	8,468	7,046	946	353	31.6%
- of which SME	1,152	939	47	630	26.5%
Other non-credit obligation assets	315	253		6	n.a.
<b>Total IRB approach</b>	<b>135,041</b>	<b>96,111</b>	<b>3,619</b>	<b>36,814</b>	
<b>Standardised exposure classes</b>					
Central government and central banks	14,879	16,384	32	0	
Regional governments and local authorities	3,617	2,295	0	0	
Institution	55,180	54,505	0		
Corporate	21,344	15,875	0	0	
Retail	8,700	4,548	1		
Exposures secured by real estates	1,705	1,660	0	1,660	
Other <sup>1</sup>	3,831	3,587	2	0	
<b>Total standardised approach</b>	<b>109,257</b>	<b>98,854</b>	<b>35</b>	<b>1,660</b>	

<sup>1</sup> Administrative bodies and non-commercial undertakings, multilateral development banks, standardised institution, standardised corporate, past due items, short term claims, covered bonds and other items. Associated companies not included in exposure.

Average LGD in exposure class institution decreased to 33.4% (37.8%), which is mainly related to process improvements.

Average LGD in exposure class corporate remained stable. Average LGD in retail is slightly down compared to 2009, stemming mainly from an increased share of the exposure collateralised by residential real estate.

#### 4.3.5.1 Guarantees and credit derivatives

The guarantees used as credit risk mitigation are largely issued by central and regional governments in the Nordic countries. Banks and insurance companies are also important guarantors of credit risk.

Only eligible providers of guarantees and credit derivatives can be recognised in the standardised and FIRB approach for credit risk. All central governments, regional governments and institutions are eligible. Credit derivatives are only used as credit risk protection to a very limited extent since the credit portfolio is considered to be well diversified. Some multi-national development banks and international organisations are also eligible. Guarantees issued by corporate entities can only be taken into account if their rating corresponds to A- (S&P's rating scale) or better. Out of the guarantors, central governments and municipalities within the Nordic countries comprise approximately 87%. The exposures that are guaranteed by these guarantors receive an average risk weight of 0%. Approximately 8% of the main guarantors are institutions and the remaining guarantors are corporate.

#### 4.3.5.2 Collateral distribution

Table 17 presents the distribution of collateral used in the capital adequacy calculation process. The table shows real estate to be the major part of the eligible collateral items in relatively terms. Real estate is commonly used as collateral for credit risk mitigation purposes.

**Table 17****Collateral distribution in Nordea Bank Finland, 31 December 2010**

Other Physical Collateral	4%
Receivables	2%
Residential Real Estate	74%
Commercial Real Estate	13%
Financial Collateral	7%

*4.3.5.3 Valuation principles of collateral*

A conservative approach with long-term market values and taking volatility into account is used as valuation principle for collateral when defining the maximum collateral ratio.

Valuation and hence eligibility is based on the following principles:

- Market value is assessed; markets must be liquid, public prices must be available and the collateral is expected to be liquidated within a reasonable timeframe.
- A reduction of the collateral value is to be considered if the type, location or character (such as deterioration and obsolescence) of the asset indicates uncertainty regarding the sustainability of the market value. Assessment of the collateral value also reflects the previously experienced volatility of market.
- Forced sale principle: assessment of market value or the collateral value must reflect that realisation of collateral in a distressed situation is initiated by the bank.
- No collateral value is to be assigned if a pledge is not legally enforceable and/or if the underlying asset is not adequately insured against damage.

*4.3.6 Estimation and validation of parameters*

Nordea has established an internal process in accordance with the legal requirements aimed at ensuring and improving the performance of models, procedures and systems and to ensure the accuracy of the parameters.

The PDs are validated semi-annually, while the LGD and CCF parameters are validated at least annually. The validation includes both a quantitative and a qualitative validation. The quantitative validation includes statistical tests to ensure that the estimates are still valid when new data is added.

The estimation process is linked to the validation since the estimates used for the PD scale are based on Nordea's Actual Default Frequencies (ADF). Any suggested changes to the PD scale are processed through appropriate channels such as the Risk Committee and subsequently decided by GEM.

The PD estimation, and hence the validation, takes into account that the rating models used for corporate and institution customers has a higher degree of TTC than the scoring models used for retail customers. The PD estimates are based on the long-term default experience and adjusted by adding a Margin of Conservatism between the average PD and the average ADF. This add-on consists of two parts, one that compensates for statistical uncertainty whereas the other constitutes a business cycle adjustment of the rating and scoring models.

In table 18, the EL is compared to the actual gross and net losses. EL has been calculated using the definition from the economic capital framework, in which defaulted exposure receive 0% EL and where Nordea has internal LGD and CCF estimates for corporate and institution exposure. Figures represent the full year outcome. For 2010, the EL ratio used for calculating risk-adjusted profit was on average 25 basis points, excluding the sovereign and institution exposure classes.

**Table 18****EL vs. gross loss and net loss in Nordea Bank Finland**

EURm

	Retail Household <sup>1)</sup>		Corporate <sup>1)</sup>	Institution	Government	Total
2010	Mortgage	Other				
<b>EL</b>	-18	-67	-150	-11	-2	<b>-248</b>
<b>Gross loss</b>	-41	-75	-314	0	0	<b>-430</b>
<b>Net loss</b>	-13	-46	-213	0	0	<b>-272</b>
2009						
<b>EL</b>	-15	-46	-140	-5	-1	<b>-207</b>
<b>Gross loss</b>	-84	-42	-358	-10	0	<b>-494</b>
<b>Net loss</b>	-77	-26	-296	18	0	<b>-381</b>
2008 <sup>2)</sup>						
<b>EL</b>	-15	-43	-124	-9	-1	<b>-192</b>
<b>Gross loss</b>	-12	-27	-125	-32	0	<b>-196</b>
<b>Net loss</b>	-11	-15	-76	-31	0	<b>-133</b>

1) SME Retail is included in the corporate segment

2) Figures are restated due to changes in economic capital framework as of 1st of January 2009

Note that the EL will vary over time due to changes in the rating and the collateral coverage distributions, but the average long term net loss is expected to be in line with average EL disregarding the fact that EL includes extra margins for statistical uncertainty and, in the case of LGD, a downturn add-on.

## 4.4 Loan portfolio, impaired loans and loan losses

### 4.4.1 Impaired loans

In the table 19 to 21 impaired loans, loan losses and allowances are distributed and stated according to International Financial Reporting Standard (IFRS) as in the annual report which is not exactly the same as in CRD. In table 19, impaired loans to corporate customers are distributed by industry.

# Nordea Bank Finland Group 2010

**Table 19**  
**Loans, impaired loans and allowances in Nordea Bank Finland, by customer type, 31 December 2010**  
 EURm

	Loans before allowances	Impaired loans before allowances	Impaired loans in % of loans	Allowances for collectively assessed loans	Specific allowances	Provisioning ratio
<b>To credit institutions</b>	<b>67,776</b>	<b>24</b>	<b>0%</b>	<b>0</b>	<b>25</b>	<b>100%</b>
- of which banks	67,117	24	0%	0	25	100%
- of which other credit institutions	659	0	0%	0	0	
<b>To the public</b>	<b>74,463</b>	<b>1,847</b>	<b>2%</b>	<b>316</b>	<b>540</b>	<b>46%</b>
- of which corporate	<b>38,802</b>	<b>1,025</b>	<b>3%</b>	<b>176</b>	<b>451</b>	<b>61%</b>
Energy (oil, gas, etc.)	552	0	0%	1	0	-
Metals and mining materials	549	2	0%	0	0	32%
Paper and forest materials	1,000	55	6%	4	40	79%
Other materials (building materials, etc.)	2,265	170	8%	38	76	67%
Industrial capital goods	596	50	8%	6	16	44%
Industrial commercial services, etc.	1,467	130	9%	8	50	45%
Construction and civil engineering	1,115	63	6%	6	32	60%
Shipping and offshore	3,868	1	0%	1	0	344%
Transportation	1,302	23	2%	4	5	40%
Consumer durables (cars, appliances, etc.)	775	50	6%	3	18	42%
Media and leisure	754	45	6%	3	16	43%
Retail trade	3,071	127	4%	9	69	61%
Consumer staples (food, agriculture, etc.)	2,000	45	2%	6	11	38%
Health care and pharmaceuticals	337	6	2%	1	1	33%
Financial institutions	1,426	8	1%	3	3	79%
Real estate management	8,995	185	2%	61	51	61%
IT software, hardware and services	415	27	6%	2	11	48%
Telecommunication equipment	90	9	10%	0	5	61%
Telecommunication operators	423	0	0%	0	0	32%
Utilities (distribution and production)	1,410	0	0%	3	0	1529%
Other	6,393	29	0%	17	46	214%
- of which household	<b>34,941</b>	<b>821</b>	<b>2%</b>	<b>140</b>	<b>90</b>	<b>28%</b>
Mortgage financing	27,635	454	2%	105	19	27%
Consumer financing	7,307	367	5%	34	71	29%
- of which public sector	<b>720</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0</b>	<b>-</b>
<b>Total loans in the banking operations</b>	<b>142,239</b>	<b>1,871</b>	<b>1%</b>	<b>316</b>	<b>565</b>	<b>47%</b>
Loans in the life insurance operations						
<b>Total loans including life insurance operations</b>	<b>142,239</b>	<b>1,871</b>	<b>1%</b>	<b>316</b>	<b>565</b>	<b>47%</b>

In table 20, impaired loans are distributed by geography.

**Table 20**  
**Loans and receivables to the public, impaired loans and allowances, by geography, 31 December 2010**  
 EURm

	Loans and receivables, before allowances	Impaired loans before allowances	Impaired loans in % of loans and receivables	Allowances for collectively assessed loans	Specific allowances	Provisioning ratio
Nordic countries	<b>58,711</b>	<b>1,248</b>	<b>2%</b>	<b>141</b>	<b>388</b>	<b>42%</b>
of which Denmark	314	0	0%	0	0	-
of which Finland	57,759	1,248	2%	141	388	42%
of which Norway	142	0	0%	0	0	-
of which Sweden	496	0	0%	0	0	-
Estonia	2,917	104	4%	42	23	63%
Latvia	2,830	317	11%	98	58	49%
Lithuania	2,230	153	7%	35	64	64%
Poland	76	2	3%	0	1	26%
Russia	118	0	0%	0	0	-
EU countries other	3,162	23	1%	0	6	25%
USA	1,699	0	0%	0	1	127%
Asia	1,568	0	0%	0	0	100%
Latin America	310	0	0%	0	0	-
OECD other	398	0	0%	0	0	-
Non-OECD other	444	0	0%	0	0	-
<b>Total</b>	<b>74,463</b>	<b>1,847</b>	<b>2%</b>	<b>316</b>	<b>540</b>	<b>46%</b>

Table 21 shows the reconciliation of allowance accounts for impaired loans.

**Table 21**

**Reconciliation of allowance accounts for impaired loans in Nordea Bank Finland**

<b>Loans and receivables, EURm</b>	<b>Individually assessed</b>	<b>Collectively assessed</b>	<b>Total</b>
<b>Opening balance at 1 Jan 2010</b>	<b>-447</b>	<b>-316</b>	<b>-763</b>
Provisions	-273	-69	-342
Reversals	61	69	130
<b>Changes through the income statement</b>	<b>-212</b>	<b>0</b>	<b>-212</b>
Allowances used to cover write-offs	96	0	96
Currency translation differences and reclassifications	-2	0	-2
<b>Closing balance at 31 Dec 2010</b>	<b>-565</b>	<b>-316</b>	<b>-881</b>
<b>Opening balance at 1 Jan 2009</b>	<b>-258</b>	<b>-174</b>	<b>-432</b>
Provisions	-257	-171	-428
Reversals	24	29	53
<b>Changes through the income statement</b>	<b>-233</b>	<b>-142</b>	<b>-375</b>
Allowances used to cover write-offs	39	0	39
Currency translation differences	5	0	5
<b>Closing balance at 31 Dec 2009</b>	<b>-447</b>	<b>-316</b>	<b>-763</b>

#### 4.4.2 *Loan losses*

Table 22 shows the specification of the loan losses according to the income statement in the annual report, as well the changes in the allowance accounts in the balance sheet.

**Table 22**

**Loan losses divided by class net in Nordea Bank Finland, 31 December 2010**

**EURm**

Loans and receivables to credit institutions	<b>0</b>
- of which write-offs and provisions	0
- of which reversals and recoveries	0
Loans and receivables to the public	<b>-247</b>
- of which write-offs and provisions	-399
- of which reversals and recoveries	152
Off-balance sheet items	<b>-25</b>
- of which write-offs and provisions	-30
- of which reversals and recoveries	5
<b>Total</b>	<b>-272</b>
<b>Specification of loan losses</b>	
Changes of allowance accounts in the balance sheet	<b>-237</b>
- of which Loans and receivables	-212
- of which Off-balance sheet items	-25
Changes directly recognised in the income statement	<b>-35</b>
- of which realised loan losses	-57
- of which realised recoveries	22
<b>Total</b>	<b>-272</b>



## 5. Market risk

*Nordea's market risk taking activities are well diversified and oriented towards the Nordic and European markets. The market risk is to a large extent driven by interest rate risk.*

### 5.1 Introduction to market risk

The customer-driven trading activity of Nordea Markets and the investment, liquidity buffer and funding activities in Group Treasury are the key contributors to market risk in Nordea. For all other banking activities, the basic principle is that market risks are eliminated by matching assets, liabilities and off balance sheet items.

In addition to the immediate change in the market value of Nordea's assets and liabilities from a change in financial market variables, a change in interest rates could also affect the net interest income of Nordea over time. In Nordea this is seen as structural interest income risk (SIIR) and is described in Chapter 8.

### 5.2 Market risk framework

A group-wide framework establishes common management principles and standards for the market risk management. This implies that the same reporting and control processes are applied for the market risk exposures in the trading book and the banking book.

Transparency in all elements of the risk management process is central to maintaining risk awareness and a sound risk culture throughout the organisation. In Nordea this transparency is achieved by:

- Senior management taking an active role in the process. The CRO receives reporting on the Group's consolidated market risk every day; GEM receives reports on a monthly basis, and the Board of Directors on a quarterly basis.
- Having a comprehensive policy framework, in which responsibilities and objectives are explicitly outlined and in which the risk appetite is defined. Policies are decided by the Board of Directors, and are complemented by instructions issued by the CRO.
- Defining clear risk mandates (at departmental, desk and individual levels), in terms of limits and restrictions on which instruments may be traded. Adherence to limits is crucial, and should a limit be breached, the decision-making body would be informed immediately.
- Having detailed business procedures that clearly state how policies and guidelines are implemented.
- Having proactive information sharing between trading and risk control.
- Having risk models that make risk figures easily decomposable.
- Having a framework for approval of traded financial instruments and methods for the valuation of these that requires an elaborate analysis and documentation of the instruments' features and risk factors.
- Having a "business intelligence" type risk IT system that allows all traders and controllers to easily monitor and analyse their risk figures.
- Having tools that allow the calculation of VaR figures on the positions that a trader, desk or department has during the day.

### 5.3 Measurement methods

As there is no single risk measure that captures all aspects of market risk, Nordea on a daily basis uses several risk measures including VaR models, stress testing, scenario simulation and other non-statistical risk measures such as basis point values, net open positions and option key figures.

#### 5.3.1 *Value-at-Risk*

Nordea's VaR model is a ten-day, 99% confidence level model, which uses the expected shortfall approach (sometimes referred to as tVaR, for tail-VaR) and is based on historical simulation on up to two years' historical changes in market prices and rates. This implies that Nordea's historical simulation VaR model uses the average of a number of the most adverse simulation results as an estimate of VaR. The sample of historical market changes in the model is updated daily. The "square root of ten" rule is applied to scale one-day VaR figures to ten-day figures. The model is used to limit and measure market risk at all levels in both the trading book and the banking book.

VaR is used by Nordea to measure interest rate, foreign exchange, equity, credit spread and liquid commodity risks. A VaR measure across these risk categories, allowing for diversification among them, is also used. The VaR figures include both linear positions and options. With the chosen characteristics of Nordea's VaR model, the VaR-figures can be interpreted as the loss that will only be exceeded in one of hundred ten-day trading periods. However, it is important to note that, while every effort is made to make the VaR-model as realistic as possible, all VaR-models are based on assumptions and approximations that have significant effect on the risk figures produced. Also, it should be noted that the historical observations of the market variables that are used as input, may not give an adequate description of the behaviour of these variables in the future.

#### 5.3.2 *Stress testing*

In addition to VaR and other risk measures used to capture the market risk during normal market conditions, stress tests are used to estimate the possible losses that may occur under extreme market conditions. Stress tests are conducted daily for the consolidated risk of Nordea. The main types of stress tests include:

1. Historical stress tests, which include selected historical episodes, and are calculated by exposing the current portfolio to the most unfavourable developments in financial markets since 1993.
2. Sensitivity tests, where rates, prices, and/or volatilities are shifted markedly to emphasize exposure to situations where historical correlations fail to hold. Another sensitivity measure used is the potential loss stemming from a sudden default of an issuer of a bond or the underlying in a credit default swap.

While these stress tests measure the risk over a shorter time horizon, market risk is also a part of Nordea's comprehensive firm wide ICAAP stress test, which measures the risk over a three year horizon. For further information on firm wide stress tests see chapter 9.

### 5.4 Consolidated market risk

The consolidated market risk in Nordea Bank Finland presented in table 23 includes both the trading book and the banking book.

The total VaR was EUR 31m (EUR 25m) at the end of 2010, demonstrating a considerable diversification effect between interest rate, equity, credit spread and foreign exchange risk, as the total VaR was lower than the sum of the risk in the four categories.

The interest rate VaR ended 2010 at EUR 35m (EUR 16m). The net interest rate sensitivity was EUR -63m (EUR 10m) and the largest part of Nordea Bank Finland's interest rate sensitivity stemmed from interest rate positions in Danish Kroner, Euro and Swedish Kronor. The total gross sensitivity to a 1 percentage point parallel shift, which measures the development in the market value of Nordea's interest rate sensitive positions if all interest rates were to move adversely for Nordea, was EUR 307m at the end of 2010 (EUR 83m).

At the end of 2010, Nordea Bank Finland's equity VaR stood at EUR 1m (EUR 2m). Credit spread VaR ended 2010 at EUR 15m (EUR 12m). Credit spread risk is to a large extent concentrated on financial issuers. Nordea Bank Finland's foreign exchange VaR was EUR 8m (EUR 14m) at year-end. The fair value of investments in private equity funds was EUR 8m (EUR 7m).

**Table 23****Consolidated market risk figures in Nordea Bank Finland, 31 December 2010**

EURm	Measure	31 Dec 2010	2010 high	2010 low	2010 avg	31 Dec 2009
Total Risk	VaR	30.7	73.4	22.6	42.1	24.9
- Interest Rate Risk	VaR	34.6	74.9	13.2	33.8	15.5
- Equity Risk	VaR	0.5	6.0	0.2	1.8	2.3
- Credit Spread Risk	VaR	15.0	23.1	11.5	15.2	12.3
- Foreign Exchange Risk	VaR	8.0	28.3	6.0	15.0	13.8
Diversification effect		47%	55%	17%	37%	43%

## 5.5 Market risk for the trading book

The risk for the trading book in Nordea Bank Finland is presented in table 24. The total VaR was EUR 30m (EUR 27m) at the end of 2010 and the main contribution to the total VaR was interest rate risk. The interest rate VaR was EUR 29m (EUR 17m), with the largest part of the interest rate sensitivity stemming from interest rate positions in Danish Kroner and Euro. The equity VaR was EUR 1m (EUR 2m). The credit spread VaR was EUR 14m (EUR 11m) with the credit spread risk concentrated mainly on financials. The foreign exchange rate VaR ended 2010 at EUR 8m (EUR 14m).

**Table 24****Market risk figures in Trading book in Nordea Bank Finland, 31 December 2010**

EURm	Measure	31 Dec 2010	2010 high	2010 low	2010 avg	31 Dec 2009
Total Risk	VaR	29.5	76.8	20.9	42.3	27.2
- Interest Rate Risk	VaR	28.7	65.3	14.0	33.5	16.7
- Equity Risk	VaR	0.5	6.0	0.2	1.8	2.3
- Credit Spread Risk	VaR	14.4	20.1	10.2	14.5	11.4
- Foreign Exchange Risk	VaR	8.0	28.3	6.0	15.0	13.7
Diversification effect		43%	54%	15%	36%	39%

## 5.6 Capital requirement for market risk in the trading book (pillar I)

Nordea uses both the internal model approach (VaR) and the standardised approach to measure the market risk capital requirement in the trading book. Market risk in the CRD context contains two types of risk measures: general risk and specific risk. General risk is risk related to changes in the overall market prices while specific risk is related to price changes for the specific issuer. In addition to the positions in the trading book, regulatory capital for market risk covers FX risk in the banking book through the standardised approach.

RWA and capital requirements for market risk for the trading book are presented in table 25. Market risk RWA increased from EUR 2.9bn to EUR 4.5bn between Q4 2009 and Q4 2010. The increase is a result of increased specific interest rate risk calculated under the standardised approach as a result of transferring the majority of the fixed income portfolio from Nordea Bank Danmark to Nordea Bank Finland.

**Table 25**  
**Capital requirements for market risk in Nordea Bank Finland, 31 December 2010**

EURm	Trading book, VaR		Trading book, non-VaR		Banking book, non-VaR		Total	
	RWA	Capital requirement	RWA	Capital requirement	RWA	Capital requirement	RWA	Capital requirement
Interest rate risk <sup>1</sup>	2,066	166	2,469	197			4,535	363
Equity risk	25	2	473	38			498	40
Foreign exchange risk	373	30			0	0	373	30
Commodity risk			50	4			50	4
Diversification effect	-982	-79					-982	-79
<b>Total</b>	<b>1,482</b>	<b>119</b>	<b>2,992</b>	<b>239</b>	<b>0</b>	<b>0</b>	<b>4,474</b>	<b>358</b>

<sup>1</sup> Interest rate risk in column Trading book VaR includes both general and specific interest rate risk which is also referred to as Interest Rate VaR and Credit Spread VaR

### 5.6.1 Internal model approach (VaR)

Nordea uses the VaR model to calculate capital requirements for the predominant part of the trading book. The methods used for calculating capital requirements for market risk are shown in table 26.

**Table 26**  
**Methods for calculating capital requirements for market risk in the trading book**

	Interest rate risk		Equity risk		FX risk
	General	Specific	General	Specific	General
Nordea Bank Finland	IM	IM <sup>1</sup>	IM	IM <sup>1</sup>	IM

IM: internal model approach

<sup>1</sup> The capital requirement for specific interest rate risk from Danish mortgage bonds and specific equity risk from structured equity options is calculated according to the standardised

General interest risk is measured by the interest rate VaR, while specific interest rate risk is measured through credit spread VaR. The minimum capital requirement for the positions not covered by the VaR model is calculated according to the standardised approach.

### 5.6.2 Backtesting of the VaR-model

Backtesting is conducted daily in accordance with the guidelines laid out by the Basel Committee on Banking Supervision.

The backtest deciding the capital requirement multiplier for Nordea's trading book is holding the one-day VaR figures against hypothetical profit/loss.

## 5.7 Interest rate risk in the banking book

Monitoring of the interest rate risk in the banking book is done daily by measuring and monitoring VaR for the banking book and by controlling interest rate sensitivities which measure the immediate effects of interest rate changes on the fair values of assets, liabilities and off balance sheet items. Per end of 2010 the interest rate VaR for the banking book was EUR 14m (EUR 17m). Table 27 shows the net effect on fair value of a parallel shift in rates of up to 200 basis points, by currency, with positions as of 31 December 2010.

Furthermore Nordea regularly measures the SIIR. See chapter 8 for further details.

**Table 27****Interest rate sensitivities for the banking book in Nordea Bank Finland 31 December 2010, instantaneous interest rate movements**

EURm	+200 bp	+100 bp	+50 bp	-50 bp	-100 bp	-200 bp
DKK	6.9	3.4	1.7	-1.7	-3.4	-6.9
EUR	-78.1	-39.0	-19.5	19.5	39.0	78.1
USD	-11.4	-5.7	-2.9	2.9	5.7	11.4
Total	-85.4	-42.7	-21.3	21.3	42.7	85.4

The totals are netted and include currencies not specified.

**5.8 Determination of fair value of financial instruments**

Financial assets and liabilities classified as financial assets/liabilities at fair value through profit or loss and derivative instruments are recorded at fair value on the balance sheet with changes in fair value recognised in the income statement in the item "Net gains/losses on items at fair value".

Fair value is defined by IAS 32 and IAS 39 as the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

The existence of published price quotations in an active market is the best evidence of fair value and when they exist they are used to measure financial assets and financial liabilities. Nordea is predominantly using published price quotations to establish fair value for items disclosed under the following balance sheet items:

- Treasury bills
- Interest-bearing securities
- Shares
- Listed derivatives
- Debt securities in issue (issued mortgage bonds in Nordea Kredit Realkreditaktieselskab)

If quoted prices for a financial instrument fail to represent actual and regularly occurring market transactions or if quoted prices are not available, fair value is established by using an appropriate valuation technique. Valuation techniques can range from simple discounted cash flow analysis to complex option pricing models.

Valuation models are designed to apply observable market prices and rates as input whenever possible, but can also make use of unobservable model parameters. Nordea uses valuation techniques to establish fair value for OTC-derivatives and for securities and shares where quoted prices in an active market are not available.

Fair value is calculated as the theoretical net present value of the individual contracts, based on independently sourced market parameters and assuming no risks and uncertainties. This calculation is supplemented by a portfolio adjustment. The portfolio adjustment covers uncertainties associated with the valuation techniques, model assumptions and unobservable parameters as well as the portfolio's counterparty credit risk and liquidity risk (bid/offer spread). The portfolio adjustment for model risk is based on two components:

- Benchmarking of the model output (market values) against market information or against results from alternative models, where available.
- Sensitivity calculations where unobservable parameters are varied to take other reasonable values.

If non-observable data has a significant impact on the valuation, the instrument cannot be recognised initially at the fair value estimated by the valuation technique and any upfront

gains are deferred and amortised over the contractual life of the contract. Nordea regards observable market data, as data that can be collected from generally available external sources and where this data is judged to represent realistic market prices.

The applied valuation models are consistent with accepted economic methodologies for pricing financial instruments, and incorporate the factors that market participants consider when setting a price.

New valuation models are subject to approval by Group Risk Management and all models are reviewed on a regular basis.

#### ***5.8.1 Compliance with requirements applicable to exposures in the trading book***

Annex VII, Part B of the European Parliament and Council Directive 2006/49/EG of 14 June 2006 on the capital requirements for investment firms and credit institutions outlines the requirements for systems and controls to provide prudent and reliable valuation estimates. Nordea complies in all material aspects with these requirements. Overall valuation principles are governed by policies and instructions and independent Group staffs are responsible for the overall valuation process. The local risk control organisations in the individual business units are responsible for performing valuation controls in accordance with the policies and instructions. The quality control framework is assessed by relevant Group functions as well as by Group Internal Audit on an ongoing basis.

The set-up for valuation adjustments is designed to be compliant with the requirements in IAS 39. Requirements in the annex not supported by IAS 39 are therefore not implemented. Nordea incorporates counterparty risk in OTC derivatives, bid/ask spreads and, where judged relevant, also model risk.

## 6. Operational risk

*Operational risk is inherent in all activities performed by Nordea. Risk management is proportional to the risks in question, and risk mitigation is designed based on the Group's risk appetite. During 2009 and 2010 a redesigned risk management framework was implemented in the Group, with enhanced focus on key risks as well as simplified reporting and structured follow-up procedures. This will lead to increased risk awareness, better management information and added business value.*

### 6.1 Overall description and definition of operational risk

The "Policy for Internal Control and Risk Management in the Nordea Group" states that the management of risks includes all activities aiming at identifying, measuring, assessing, monitoring and controlling risks as well as measures to limit and mitigate consequences of the risks. Management of risks is proactive, emphasising training and risk awareness. The Nordea Group maintains a high standard of risk management by means of applying available techniques and methodology to its own needs in a cost-efficient way.

Operational risk is the risk of direct or indirect loss, or damaged reputation resulting from inadequate or failed internal processes, from people and systems or from external events. Operational Risk includes compliance risk which means the risk of business not being conducted according to legal and regulatory requirements, market standards and business ethics, thereby jeopardising customers' best interest, other stakeholders trust and increasing the risk of regulatory sanctions, financial loss or damage to the reputation and confidence in the Group. Operational risk also includes legal risk, which is the risk that the Group suffers damage due to a deficient or incorrect legal assessment. Operational risk is inherent in all activities within the organisation, in outsourced activities and in all interactions with external parties.

### 6.2 Operational Risk Management and the operating model

Group Operational Risk Management is responsible for developing and maintaining the framework for managing operational and compliance risks, and for supporting the business organisation in their implementation of the framework.

Information security, physical security, crime prevention and educational and training activities are important components when managing operational risks. To cover this broad scope, the Group security and the Group compliance functions are included in Group Risk Management, and close cooperation is maintained with Group IT and Group Legal, in order to raise the risk awareness throughout the organisation.

Managing operational risk is part of the management's responsibilities. In order to manage these risks a common set of standards and a sound risk management culture is aimed for with the objective to follow best practice regarding market conduct and ethical standards in all business activities.

Nordea uses external risk transfer in the form of insurance, including re-insurance, to cover certain aspects of crime risk and professional liability, including directors and officers liability. The Group furthermore uses insurance for travel, property and general liability purposes.

The Group's network of risk and compliance officers ensures that operational and compliance risk within the Group is managed effectively in the business organisation, which represents the first line of defence. In order to manage these risks Group Operational Risk Management, representing the second line of defence, has defined a common set of standards (Group Directives, processes and reporting). Group Internal Audit, representing the third line of defence, provides assurance to the Board of Directors on the risk management, control and governance processes.

## 6.3 Key processes

### 6.3.1 Risk self assessment

The risk self assessment process puts focus on the key risks, which are identified both through top-down division management involvement and bottom-up reuse of existing information from processes such as quality and risk analyses, product approvals etc. The risks are then quantified, assessed and documented in a structured way, and subsequently presented in a risk map for prioritisation of them for mitigating activities. The key risks are prioritised and their mitigating activities are tracked together with the detailed information of the risk.

The divisions' key risks are also presented in a Group risk map. The timing of this process is synchronised with the annual planning process to be able to ensure adequate input to the Group's overall prioritisations.

### 6.3.2 Internal control

The internal control process aims at ensuring fulfilment of requirements specified in Group directives, reflecting both external and internal requirements on the business. The focus areas are addressed by the business organisation over an extended period of time, and the division result (score) will be commented on and signed off by the division manager, to be subsequently reported to Group Operational Risk Management. The extended time period for answering aims at providing time for actions to be taken by the business to correct substandard matters, thereby making the process an active tool for improvement rather than merely a status report. The results are subsequently aggregated in different dimensions and used as input to the CEO's annual report on internal control.

### 6.3.3 Other processes

Nordea has developed more task specific risk management processes in three key areas; product approvals, business continuity and ad-hoc changes.

The purpose of the product approval process is to ensure common requirements and documentation in respect of new products as well as material changes to existing products. Approved products are reported on a regular basis.

The business continuity management covers a broad scope ranging from procedures for handling incidents via escalation procedures, to crisis management on Group level. The most important factors governing the business continuity preparedness are the recovery requirements and prioritisations of products and services. As most of the value chains rely on IT applications, disaster recovery plans for technical infrastructure represent a key part of the Nordea's business continuity planning.

The Quality and Risk Analysis (QRA) is used to analyse risk and quality aspects related to changes on case by case basis, for example new programs or projects, or significant changes to organisation, processes, systems and procedures. In principle, the product approval process described above constitutes a QRA.

## 6.4 Key reports

### 6.4.1 Annual report on internal control

The result and comments from the Internal Control process represent the main input. The reporting is provided annually.

Group Operational Risk Management collects the signed off input from the Divisions, aggregates them to business area level, and forwards them to the business area heads for comments. The comments from the business areas are then compiled and, together with comments from a Group perspective, forwarded to the CEO.



The CEO subsequently submits the annual report on internal control to the Group Board.

#### *6.4.2 Semi annual report on operational risks*

The semi annual report is the independent report from the risk organisation, and is based on input from risk and compliance officers in the business. The report also closely relates to the risk self assessment process as it requires the risk and compliance officers to comment on the key risks and their mitigating actions as identified in the risk self assessment process.

The report features standard, recurring subjects relating to operational risk and compliance for the risk and compliance officers to comment on, but may also contain specific, ad hoc themes focusing on currently relevant areas. Group Operational Risk Management adds own observations to the final Group report which is submitted to the Risk Committee, GEM, and the Board of Directors.

#### *6.4.3 Incident reporting*

The incident reporting reflects Basel II standards and ensures compliance with ORX (an international database for incidents) requirements.

The process of reporting incidents is divided into a two-tiered process, with one business specific part where business have the flexibility to adjust it to its specific needs, and one Group related part where the incidents are reported from the business to Group Operational Risk Management. Key aspects of the process include major and minor incidents being reported in the same way (albeit with different level of detail required), and both the identifier of the incident and the risk and compliance officer reporting different parts of the incident information to ensure consistent quality.

Threshold levels for reporting are EUR 1,000 for minor incidents and EUR 20,000 for major incidents. Incidents with no direct financial loss are still reported on other consequences, such as legal, reputational, regulatory, process and other impacts.

Aggregated incident reports are submitted to the every Risk Committee meeting, and key observations are included in the semi annual report on operational risk.

### **6.5 Capital requirement for operational risk**

The capital requirement for operational risk is calculated according to the standardised approach, in which all of the institution's activities are divided into eight standardised business lines and a defined beta coefficient is multiplied by the average of the gross income for each business line. The capital requirement in Nordea Bank Finland (end 2010) for operational risk amounts to EUR 421m (EUR 368m). The capital requirement for operational risk is updated on a yearly basis.

## 7. Securitisation and credit derivatives

*Nordea has no exposure where capital requirement is reported under the current securitisation framework. In general, Nordea's role in securitisation has been limited to that of being a sponsor of various schemes which are described below. Nordea has not used securitisation in the role of an originator by having its loans or their risk transferred outside of Nordea.*

### 7.1 Introduction to securitisation

Capital directive (2006-48-EC) defines securitisation as a scheme where the credit risk of underlying exposures is converted into marketable securities where payments from these securities are dependent on the performance of the underlying exposures and a subordination scheme exists for determination of how losses are distributed among investors to these securities. In a traditional securitisation, the ownership of assets is transferred to a Special Purpose Entity (SPE), which in turn issues securities backed by these assets. In synthetic securitisation, ownership of these assets does not change. However, the credit risk these assets entail is transferred to the investor by using credit derivatives.

Banks have different roles in securitisations. First, they can act as originators by having assets they have originated themselves as underlying exposures. Second, they can act as sponsors in which role they establish and manage securitisations of assets from third party entities. Third, in their credit trading activity they can themselves invest in these types of marketable securities or create these exposures in credit derivatives markets.

Nordea has not acted as originator in securitisations. However, Nordea has been sponsoring various securitisation schemes which are described in the following section. Nordea is also acting as an intermediary in the credit derivatives market, especially in Nordic names. This credit trading activity creates securitisation exposures and market risk that are described in more detail in section 7.3.

### 7.2 Traditional securitisations where Nordea acts as sponsor

Traditional securitisations where Nordea transfers assets to a SPE are consolidated in the Group accounts and are treated as any other subsidiary for capital adequacy purposes. The assets in the SPEs are included in the banking book and the capital requirement is calculated in accordance with the IRB approach described in chapter 4.

In addition to SPEs to which Nordea has transferred assets, Nordea has set up a limited number of SPEs where Nordea acts as a sponsor. These SPEs have either been set up for enabling investments in structured credit products or for acquiring assets from customers. At year end 2010, Nordea is sponsoring the following SPEs presented in table 28.

**Table 28**  
Special Purpose Entities where Nordea is the sponsor

EURm		Duration	Accounting treatment	Book	Nordea's investment <sup>1</sup>	Total assets
CMO Denmark A/S	Collateralised Mortgage Obligation	>5 years	Consolidated	Trading	11	26
Kalmar Structured Finance A/S	Credit Linked Note	>5 years	Consolidated	Trading	25	91
Viking ABCP Conduit	Factoring	<5 year	Consolidated	Banking	948	1,000
<b>Total</b>					<b>984</b>	<b>1,117</b>

<sup>1</sup> Includes all assets towards SPEs (such as bonds, subordinated loans and drawn credit facilities)

In accordance with IFRS, Nordea does not consolidate SPEs' assets and liabilities beyond its control. In determining whether Nordea controls a SPE or not, Nordea makes judgments about risks and rewards from the SPE and assesses its ability to make operational decisions for it. Nordea consolidates all SPEs where Nordea has retained the majority of the risks and rewards. For the SPEs that are not consolidated the rationale is that Nordea does not have any significant risks or rewards on these assets and liabilities.

The SPEs in table 28 are not consolidated for capital adequacy purposes. Instead, eventual loans and loan commitments to the SPEs are included in the banking book and capital requirement is calculated in accordance with the rules described in chapter 4. Bonds and notes issued by the SPE and held by Nordea as well as credit derivative transactions between Nordea and the SPE are reported in the trading book. Since Q4 2006 Nordea has an approval to calculate the general and specific market risk of these transactions under the so called Value-at-Risk model. The counterparty risk of derivative transactions is calculated in accordance with the so called current exposure methodology. More information on the different SPEs can be found below.

### *7.2.1 Entities issuing structured credit products*

Nordea gives investors an opportunity to invest in different types of structured credit products such as structured Credit Linked Notes (CLN) and Collateralised Mortgage Obligations (CMO).

CMO Denmark A/S was established with the purpose of issuing CMOs in order to meet specific customer preferences in terms of credit risk, interest rate risk, prepayment risk, maturity etc. The SPE purchases a pool of mortgage bonds and reallocates the risks by issuing a tranching bond (CMOs). At year end 2010 the total notional of outstanding bonds was EUR 26m (EUR 32m) available to investors. Nordea holds bonds issued by CMO Denmark A/S as part of offering a secondary market for the bonds. The investment amounted to EUR 11m (EUR 13m) as of year end 2010.

Kalmar Structured Finance A/S (Kalmar) was established to allow customers to invest in structured products in the global credit markets. Nordea sells protection in the credit derivative market by entering into a portfolio Credit Default Swap (CDO). At the same time, Nordea purchases protection under similar terms from Kalmar which issues Credit Linked Notes to investors. In this process the investors finally take the credit risk of the underlying portfolio. In case of credit losses in the underlying portfolio the collateral given by the investors in connection with CLN is reduced. The total notional of outstanding CLNs in this category was EUR 91m (EUR 142m) at year end 2010. Nordea holds CLNs issued by the SPE as part of offering a secondary market for the notes. The investment amounted to EUR 25m (EUR 34m) at year end 2010. Nordea includes the CLN holdings and derivative positions with the SPEs in the capital requirement calculations for its trading book. For market risk Nordea has a Value-at-Risk approval and for counterparty risk Nordea uses the so called current exposure method.

### *7.2.2 Securitisations of customer assets*

The Viking ABCP Conduit (Viking) has been established with the purpose of supporting trade receivable or accounts payable securitisations to core Nordic customers. The SPEs purchase trade receivables from the approved sellers and fund the purchases either by issuing Commercial Papers (CP) via the established Asset Backed Commercial Papers programme or by drawing the funds on the liquidity facilities available. Nordea has provided liquidity facilities of maximum EUR 1299m at year end 2010 (EUR 995m), EUR 948m (EUR 478m) were utilised. There is no outstanding CP issue at year end 2010. The credit facility results in a RWA of EUR 697m, which is included within the credit risk framework of Nordea's banking book, see chapter 4 for further information.

### 7.3 Synthetic securitisations and other credit derivatives

Nordea acts as an active intermediary in the credit derivatives market, especially in Nordic based names. Nordea is also using credit derivatives to hedge positions in corporate bonds and synthetic CDOs.

When Nordea sells protection in a CDO transaction, Nordea carries the risk of losses in the reference portfolio on the occurrence of a credit event. When Nordea buys protection in a CDO transaction, any losses in the reference portfolio, triggered by a credit event is then carried by the seller of protection.

Credit derivatives transactions create counterparty risk equal to other derivative transactions. Counterparties from which Nordea buys protection are typically subject to a financial collateral agreement, thus the exposure is on daily basis covered by collateral placements.

Table 29 and table 30 list the total outstanding volumes of credit default swaps and CDOs at the end of 2010, split into bought and sold positions. To illustrate the business volume, the figures are provided on gross level, meaning no netting has been considered between bought and sold contracts in the same underlying name. The risk positions are integrated in Nordea's consolidated market risk management and as such subject to:

- Limits, including VaR, jump-to-default and correlation risk
- The product and transaction approval process

Also the CDO valuations are subject to fair value adjustments for model risk. These fair value adjustments are recognised in the income statement. In the Nordea Group, the credit derivative portfolio is referable to Nordea Bank Finland Plc.

**Table 29**

**Credit default swap volumes for Nordea Bank Finland, 31 December 2010**

EURm	Total gross notional sold	Total gross notional bought
Single name CDS: Investment grade	8,129	8,270
Single name CDS: Non-Investment grade	5,002	4,831
Multi name CDS indices	11,774	11,976
<b>Total</b>	<b>24,905</b>	<b>25,077</b>

**Table 30**

**Collateralised Debt Obligations (CDO) - Exposure (excl NLP)<sup>1</sup>**

Notionals EURm	Bought protection	Bought protection
CDOs, gross	2,244	1535
Hedged exposures	1,322	1322
<b>CDOs, net<sup>2</sup></b>	<b>922<sup>4</sup></b>	<b>213<sup>3</sup></b>
<i>Of which:</i>		
- <i>Equity</i>	251	108
- <i>Mezzanine</i>	129	104
- <i>Senior</i>	542	1

<sup>1</sup> First-To-Default (FTD) swaps are not classified as CDOs and are therefore not included in the table. Net bought protection amounts to EUR 71m and net sold protection to EUR 80m. Both bought and sold protection are, to the predominant part, investment grade.

<sup>2</sup> Net exposure disregards exposure where bought and sold tranches are completely identical in terms of reference pool attachment, detachment, maturity and currency.

<sup>3</sup> Of which investment grade EUR 213m and sub investment grade EUR 0m.

<sup>4</sup> Of which investment grade EUR 922m, subinvestment grade EUR 0m and not rated EUR 0m

## 8. Liquidity risk and Structural Interest Income Risk

*Nordea has during 2010 continued to benefit from its focus on prudent liquidity risk management, reflected by diversified and strong funding base. Nordea Group has had access to all relevant financial markets and has been able to actively use all its funding programmes. During 2010 the Nordea Nordic covered bond platform became complete, by adding covered bond issuance platforms in Norway and Finland, in addition of existing platforms in Denmark and Sweden.*

*Extensive discussions on new liquidity risk regulation are still ongoing among regulators. Nordea is participating in the discussions on several forums and is well prepared for potential changes.*

### 8.1 Liquidity risk

#### 8.1.1 Management principles and control

The Board of Directors of Nordea has the ultimate responsibility for Asset and Liability Management of the Group, i.e. limiting and monitoring the Group's structural risk exposure. Risks in Nordea are measured and reported according to common principles and policies approved by the Board. The Board of Directors also decides on policies for liquidity risk management. These policies are reviewed at least annually. The CEO in GEM decides on the targets for the Group's risk management regarding SIIR, as well as, within the scope of resolutions adopted by the Board of Directors, the allocation of the liquidity risk limits. The ALCO, chaired by the CFO, prepares issues of major importance concerning the Group's financial operations and financial risks for decision by CEO in GEM. Group Treasury operationalises the targets and limits and develops the liquidity risk and SIIR management frameworks, which consists of policies, instructions and guidelines for the whole Group as well as the principles for pricing the liquidity risk.

#### 8.1.2 Liquidity risk management

Liquidity risk is the risk of being able to meet liquidity commitments only at increased cost or, ultimately, being unable to meet obligations as they fall due. Nordea Group's liquidity management is based on policy statements resulting in different liquidity risk measures, limits and organisational procedures. Policy statements stipulate that Nordea's liquidity management reflects a conservative attitude towards liquidity risk. Nordea strives to diversify the Group's sources of funding and seeks to establish and maintain relationships with investors in order to manage the market access. Broad and diversified funding structure is reflected by the strong presence in Nordea Group's four domestic markets in the form of a strong and stable retail customer base and the variety of funding programmes. Special focus is given for the composition of the investor base in the terms of geographical range and rating sensitivity. Nordea publishes adequate information on the liquidity situation of Nordea Group to remain trustworthy at all times. Nordea's liquidity risk management includes stress testing and a business continuity plan for liquidity management.

Stress testing is defined as the evaluation of potential effects on a bank's liquidity situation under a set of exceptional but plausible events. The stress test should identify events or influences that could affect the funding need or the funding price and seek to quantify the potential effects. The purpose of stress tests is to supplement the normal liquidity risk measurement and confirm that the business continuity plan is adequate in stressful events, and that the business continuity plan properly describes procedures to handle a liquidity crisis with minimal damage to Nordea. Nordea stress scenarios are based on assessment of the particular events for which Nordea is presumed to be most

vulnerable to taking into account the current business structure and environment. Stress tests focus on the other hand on increased funding need and on the other hand on increased funding price. Group Treasury is responsible for managing the liquidity in Nordea and for compliance with the group wide limits from the Boards of Directors, CEO in GEM and ALCO.

#### **8.1.3 *Liquidity risk measurement methods***

The liquidity risk management focuses on both short-term liquidity risk and long-term structural liquidity risk. In order to measure the exposure on both horizons, a number of liquidity risk measures have been developed covering all material sources of liquidity risk. In order to avoid short-term funding pressures, Nordea measures the funding gap risk, which expresses the expected maximum accumulated need for raising liquidity in the course of the next 14 days. Cash flows from both on-balance sheet and off-balance sheet items are included. Funding gap risk is measured and limited for each currency and as a total figure for all currencies combined. The total figure for all currencies combined is limited by the Board of Directors.

To ensure funding in situations where Nordea is in urgent need of cash and the normal funding sources do not suffice, Nordea holds a liquidity buffer. Limit is set by the Board of Directors for the minimum size of the liquidity buffer. The liquidity buffer is set to ensure a total positive cash flow defined by the funding risk measurement and consists of high-grade liquid securities that can be sold or used as collateral in funding operations. The structural liquidity risk of Nordea is measured and limited by the Board of Directors through the net balance of stable funding, which is defined as the difference between stable liabilities and stable assets. These liabilities primarily comprise retail deposits, bank deposits and bonds with a remaining term to maturity longer than 6 months, and shareholders' equity, while stable assets primarily comprise retail loans, other loans with a remaining term to maturity longer than 6 months and committed facilities.

ALCO has set as a target that the net balance of stable funding should be positive, which means that stable assets must be funded by stable liabilities.

#### **8.1.4 *Liquidity risk analysis***

The short-term liquidity risk has been held at moderate levels throughout 2010. The average funding gap risk, i.e. the average expected need for raising liquidity in the course of the next 14 days, has been EUR -0.8bn (EUR -3.9bn). Nordea Bank Finland's liquidity buffer has been in the range EUR 13.3 – 14.7bn (EUR 10.2 – 14.4bn) throughout 2010 with an average of EUR 14.1bn (EUR 11.3bn). Nordea considers this a high level and it reflects the Group's conservative attitude towards liquidity risk in general and towards unexpected liquidity events in particular. The yearly average for the net balance of stable funding was EUR -2.4bn (EUR -5.8bn).

## **8.2 Structural Interest Income Risk**

Structural Interest Income Risk (SIIR) is the amount Nordea's accumulated net interest income would change during the next 12 months if all interest rates change by one percentage point. SIIR reflects the mismatch in the balance sheet items and the off balance-sheet items when the interest rate re-pricing periods, volumes or reference rates of assets, liabilities and derivatives do not correspond exactly. Nordea Group's SIIR management is based on policy statements resulting in different SIIR measures, targets and organisational procedures. Policy statements focus on optimising financial structure, balanced risk taking and reliable earnings growth, identification of all significant sources of SIIR, measurement under stressful market conditions and adequate public information. Group Treasury has the responsibility for the operational management of SIIR and for complying with Group wide targets.

### 8.2.1 *SIIR measurement methods*

The basic measures for SIIR are the two re-pricing gaps measuring the effect on Nordea's net interest income for a 12 months period of a one percentage point increase; respectively decrease, in all interest rates. The re-pricing gap is presented in table 31. The re-pricing gaps are calculated under the assumption that no new market transactions are made during the period. Main elements of the customer behaviour and Nordea's decision-making process concerning Nordea's own rates are, however, taken into account. For example in a low interest rate environment, when rates are decreasing further, the total decrease of rates cannot be applied to non-maturity deposits since rates cannot be negative. Similarly in an increasing rate environment Nordea may choose not to increase interest rates on all customer deposits correspondingly.

### 8.2.2 *SIIR analysis*

At the end of the year, the SIIR in Nordea Bank Finland for decreasing market rates was EUR -134m (EUR -88m) and the SIIR for increasing rates was EUR 225m (EUR 117m). These figures imply that net interest income would decrease if interest rates fall and increase if interest rates rise.

**Table 31**

**Re-pricing gap analysis for Nordea Bank Finland, 31 December 2010**

Interest Rate Fixing Period	Group bs	Within 3 months	3-6 month	6-12 month	1-2 year	2-5 year	>5 year	Non Repricing	Total
<b>Assets</b>									
Interest bearing assets	178,127	154,416	10,948	8,439	1,637	1,814	271	602	178,127
Non interest bearing assets	107,960							107,960	107,960
<b>Total assets</b>	<b>286,086</b>	<b>154,416</b>	<b>10,948</b>	<b>8,439</b>	<b>1,637</b>	<b>1,814</b>	<b>271</b>	<b>108,562</b>	<b>286,086</b>
<b>Liabilities</b>									
Interest bearing liabilities	156,294	135,977	7,801	5,107	1,702	5,173	534		156,294
Non interest bearing liabilities	129,792							129,792	129,792
<b>Total liabilities</b>	<b>286,086</b>	<b>135,977</b>	<b>7,801</b>	<b>5,107</b>	<b>1,702</b>	<b>5,173</b>	<b>534</b>	<b>129,792</b>	<b>286,086</b>
<b>Off-balance sheet items NET</b>		<b>5,241</b>	<b>-2,910</b>	<b>-4,064</b>	<b>-441</b>	<b>2,157</b>	<b>17</b>		
<b>Exposure</b>		<b>23,680</b>	<b>237</b>	<b>-732</b>	<b>-505</b>	<b>-1,202</b>	<b>-247</b>	<b>-21,230</b>	
<b>Cumulative exposure</b>			<b>23,917</b>	<b>23,185</b>	<b>22,680</b>	<b>21,477</b>	<b>21,230</b>	<b>0</b>	

## 9. ICAAP and Internal capital requirements

*The financial turmoil and the new regulatory environment has increased the focus on banks' internal capital evaluation processes and their capability to assess the solvency need to cover losses and other cyclical effects*

*During 2010 financial supervisors and central banks have performed several stress tests of the Nordea Group and Nordea Bank Finland. The result of the stress tests, clearly show that Nordea is well capitalized.*

*Finanssivalvonta agreed that Nordea Bank Finland and its legal entities were adequately capitalised given its risk profile and portfolio, in accordance with the 2010 ICAAP and SREP process.*

### 9.1 ICAAP

The purpose of the ICAAP is to review the management, mitigation and measurement of material risks in order to assess the adequacy of capitalisation and to determine an internal capital requirement reflecting the risk appetite of the institution.

The ICAAP is a continuous process within Nordea which contributes to increased awareness of Nordea's capital requirements and exposure to material risks throughout the organisation, ensuring that there is sufficient capital of adequate quality available to support the underlying risk profile. The process includes a consistent dialogue with Finanssivalvonta with respect to capital management, measurement and mitigation techniques used within Nordea Bank Finland.

The capital ratios and capital forecasts for the Nordea Bank Finland and its legal entities are followed up quarterly by Group Risk Management and Group Corporate Centre. The current capital situation and forecasts are reported to the Asset and Liability Committee (ALCO), Risk Committee and the Board of Directors. On an annual basis the capital requirement and adequacy is thoroughly reviewed and documented in Nordea's ICAAP report, which ultimately is decided and signed off by the Board of Directors

#### 9.1.1 Capital planning

The capital planning process includes a forecast of the development of the capital requirements, (e.g. the pillar I and pillar II capital requirement), the available capital, (e.g. capital base, tier 1 and core tier 1 capital) as well as impact of new regulations. The capital planning is based on key components of Nordea's rolling financial forecast, which includes lending volume growth by customer segment and country as well as forecasts of net profit including assumptions of future loan losses.

The capital planning process also consider forecasts of the state of the economy, to reflect the future impact of credit risk migration on the capital situation of Nordea Bank Finland and its legal entities. An active capital planning process ensures that Nordea is prepared to make necessary capital arrangements regardless of the state of the economy and the introduction of new capital adequacy regulations.

The Asset and Liability Committee is responsible for interpreting the capital plans of Nordea Bank Finland and its legal entities and ensuring that each entity upholds its respective capital requirements.

#### 9.1.2 Conclusion of ICAAP and SREP

Nordea Bank Finland and its legal entities' capital levels have been and continue to be adequate to support the risks taken from an internal and regulatory perspective.



Heading into 2011, Nordea will review the capital situation closely with regards to the new capital adequacy framework “Basel III” and maintain its open dialogue with Finanssivalvonta. The 2011 ICAAP and SREP dialogue occurs throughout the year and is expected to occur following the spring submission of the Nordea Bank Finland documentation.

## 9.2 Internal capital requirements

Nordea’s internal capital requirement is defined using a “pillar I plus pillar II” approach. This methodology uses the pillar I capital requirements for credit risk, market risk and operational risk as outlined in the legislation as the starting point for its risk assessment. Therefore, a key component of Nordea’s ICAAP is the pillar I capital requirement.

In the next step, pillar II risks, i.e. risks not included in pillar I, are considered. Nordea uses its economic capital framework to identify and assess pillar II risks, and as its primary tool for internal capital allocation considering all risk types. Another important component of assessing capital adequacy is stress testing. Nordea Bank Danmark and its legal entities are considered as part of a comprehensive capital adequacy stress test process to analyse the effects of a series of global and local shock scenarios as part of the ICAAP. This process aims to ensure that capital buffers held within Nordea Group are sufficient to cover the risks throughout the Group, including within Nordea Bank Finland.

### 9.2.1 *Economic Capital*

Since 2001, Nordea’s economic capital framework has included the following major risk types

- Credit risk
- Market risk
- Operational risk
- Business risk.

Pillar II of the of the Basel II framework closes the gap between regulatory capital and economic capital by improving the risk sensitivity of regulatory capital measurement, but still several differences remain, since economic capital covers both pillar I and pillar II risks.

As of end 2010 the total economic capital for Nordea Bank Finland equals EUR 5.1bn and Figure 6 shows the economic capital distributed by risk type

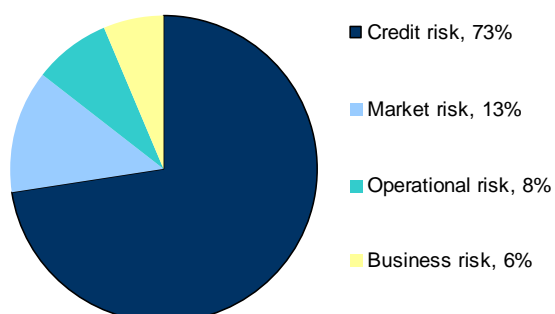


Figure 6: EC distributed by risk type

### **The economic capital framework**

As a consequence of the financial turmoil and the upcoming regulations, the focus has shifted towards building capital analysis on regulatory capital requirements rather than the result of internal capital models. Due to the shift in focus and to ensure that each customer unit within Nordea is correctly charged for the actual capital consumption, Nordea decided in 2010 to align the economic capital framework to the regulatory capital framework. i.e. the pillar I risk measurements methods are used in the economic capital framework for credit, market and operational Risk. However, both pillar I and pillar II risks are included in the EC framework. The alignment provides a framework that links capital allocation to Nordea Bank Finland's internal capital requirement and supports capital efficiency.

The alignment during 2010 implied the following for the economic capital framework:

- Credit risk - The calculation of economic capital for credit risk calculation in EC is in general aligned to regulatory capital. This implies that the significant part of the corporate and institution exposure is calculated according to the Foundation IRB approach. However, in order to keep a risk differentiated measure within the economic capital framework, the corporate and institution portfolios not yet approved for Foundation IRB is calculated as if they were approved. For counterparty credit risk, the Expected Positive Exposure (EPE) method is used compared to the Mark to Market (MtM) method used in the regulatory capital. Moreover, to better account for sector credit concentration risk an improved method has been implemented in the economic capital framework. The economic capital for the majority of the retail portfolio is calculated as in the regulatory capital requirement, i.e. according to the Retail IRB approach.
- Market risk - Economic capital for market risk is based on pillar I plus pillar II approach where the pillar I market risk is completely aligned with regulatory capital and pillar II market risks are based on the same VaR model and assumptions as used in the calculation of regulatory market risk capital and used internally within market risk management.
- Operational risk - Economic capital for operational risk is calculated in the same manner as the regulatory capital for operational risk.

#### **9.2.2 Stress tests**

During 2010 Nordea has performed several internal stress tests in order to evaluate general effects of an economic downturn as well as effects for specifically identified high risk areas. In addition to the internal stress tests, Nordea Group and Nordea Bank Finland has been part of external stress tests. In May 2010 Nordea Bank Finland participated in a stress test requested by Finanssivalvonta, the result showed that Nordea Bank Finland is well capitalised.

The Nordea Group participated in the European stress test that was requested by the Committee of European Banking Supervisors (CEBS). The result of the CEBS' stress test which was performed during the spring/summer in 2010 confirms Nordea's strong balance sheet and capital situation. Nordea was one of 91 banks that was included in the stress test and even in the most severe scenario i.e. the adverse scenario combined with the sovereign shock; Nordea's Tier 1 ratio dropped only 10bps. This clearly demonstrates the strength of Nordea's risk management, capital planning and its ability to assess a sufficient need of capital.

As a part of the ICAAP and the capital planning process, internal firm wide stress tests are used as an important risk management tool in order to determine how severe unexpected changes in business and macro environment will affect the capital need. The stress

test reveals how the capital need varies during a stress scenario, where impact on financial statements, regulatory capital requirements, economic capital and capital ratios occur.

Nordea conducts a comprehensive stress test annually, while ad-hoc stress tests, reverse stress tests and parameter sensitivity analyses for various risk parameters are performed on a need by need basis. The stress test process is divided into the following three steps:

- Scenario development and translation
- Calculation
- Analysis and reporting

In addition to the firm wide stress tests which cover all risks defined in the economic capital framework, Nordea is performing several stand alone stress tests for each risk type such as market risk and liquidity risk. See the market and liquidity risk chapters for more details.

#### *9.2.2.1 Scenario development and translation*

The annual stress test is based on three-year macro economic scenarios for each Nordic country and the scenarios are designed to replicate shocks that are particularly relevant for the existing portfolio. The design of the stressed scenarios is performed by experts within Nordea Economic Research division in each Nordic country. In addition to the stress scenarios Nordea uses its rolling financial forecast as a base case and the difference between the stressed and the base case scenario will set the ground for the stress effect and the additional capital need.

While the annual stress test is based on complex macro economic scenarios which involve estimates of several macroeconomic factors, the ad-hoc stress tests are based on direct estimates of risk parameter changes or based on a few macro economic variables. This enables senior management to easily define scenarios and evaluate the effect of them in capital planning.

After a scenario is developed, the effects on risk drivers are translated and the risk and financial parameters are simulated. Advanced models in combination with expert judgment from business areas are used in order to determine the effect of the scenario.

As an example, in the annual stress test, the scenario is translated into an impact on the parameters listed in table 32.

**Table 32**  
**Parameters in the annual stress test**

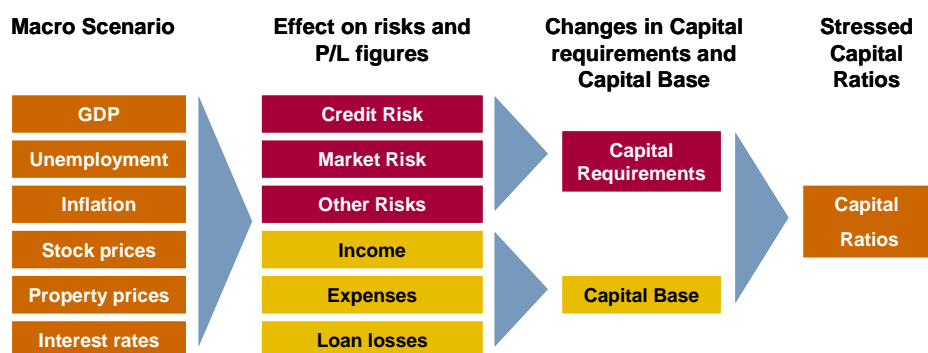
Parameter	Impact
Volumes	Volumes from deposits and lending are adjusted according to each scenario by isolating the specific impact of each parameter
Margins	The margins are adjusted according to the development of the credit spread and the maturity of the portfolio
Net interest income	Net interest income figures are adjusted according to the change in volume and margins in deposits and lending
Net fee and commission income	Net fee and commission income is adjusted for changes in fees and commissions from activities in Asset Management
Funding cost	Changes in funding costs deriving from liquidity risk is incorporated and increases the cost of long-term and short-term funding and reduces the net interest income
Loan losses	Loan losses are calculated using an expected loss/provisions-recoveries model or stated in the scenario as bps of lending for each segment and country
Exposures	Exposures are adjusted with the volume and growth expectations as well as the loan losses
Rating migration	Each year a new rating distribution is created for each portfolio. This includes stress testing of the financial statements for the majority of corporate customers which results in a new rating according to the rating model
Probability of default	The PD values are stressed in order to reflect increases in defaults, simulating the existing process for defining probability of default.
Collateral values	The collateral coverage is stressed by moving parts of the exposure from secured to unsecured, resulting in an increase in average weighted LGD

#### 9.2.2.2 Calculation

The stressed figures and parameters from the scenario are used to calculate the effect on the regulatory capital requirements, the economic capital and the financial statements. The regulatory capital is calculated for the credit risk, market risk and operational risk according to the CRD with regards to the IRB approaches used. The calculations for each risk type are aggregated into total capital requirement figures.

Economic capital with the stressed parameters is calculated for credit risk, market risk, operational risk, business risk and life risk according to the economic capital framework. The calculation for each risk type is aggregated into total economic capital figures.

Stressed figures for loan losses, net profit and dividend from the stressed financial statements are used to calculate the effect on the capital base components. The capital base is set in relation to the regulatory capital or economic capital in order to calculate the effect on capital ratios during a stress scenario. See Figure 7 for the calculation process used in the stress test framework.



**Figure 7: Calculation process**

#### 9.2.2.3 Analysis and reporting

The first level of reporting in Nordea is the Asset and Liability Committee and the Risk Committee, which reviews the details of the stress tests and implications on future capital

need. The finalised results showing the implications of the stress tests on the adequacy of existing capital are distributed to executive management and the Board of Directors.

The results of the stress tests should support senior management's understanding of the implications of the current capital strategy given potential market shocks. Based on this information senior management is able to ensure that Nordea holds enough capital against the risk of stressed or similar events occurring. Business area involvement in defining and assessing the stress tests is seen as important in order to increase the risk awareness throughout the organisation and the understanding of the relation between capital requirement and exposure to material risks.

The outcome of the stress tests demonstrates how Nordea's loan loss and capital ratios will change during a stress scenario. The outcome is then analysed in order to decide the capital need during a downturn period and ensure that Nordea is well capitalised.

## 10. Capital base

*The prudent growth strategy set forth in the Group has resulted in stable development of the capital base throughout the year. Nordea Bank Finland has a strong capital position, based on predominant form of tier1 capital and only a limited part of additional tier 2 capital in form of undated, subordinate loans..*

### 10.1 Capital base

The calculation of capital base is done in accordance with the CRD and the Finnish legislation. The outcome must as a minimum correspond to the sum of the capital requirement for credit risks, market risks, operational risks and capital requirement related to transition rules. In the capital base for the financial group only capital contributed by subsidiaries or firms that are covered by the consolidated accounts are to be included.

Items included in the capital base should without restrictions or time constraints be available for the institution to cover risk and absorb potential losses. All amounts are included net of any tax charge.

Generally, Nordea Group has the ability to transfer capital within its legal entities without material restrictions. International transfers of capital between legal entities are normally possible after approval by of the local regulator and are of importance when governing the capital position within the Group.

A summary of items included in the capital base is available in table 33.

**Table 33**  
**Summary of items included in capital base in Nordea Bank Finland**

EURm	31 December 2010	31 December 2009
Calculation of total capital		
<b>Original own funds</b>		
Paid up capital	2,319	2,319
Share premium	599	599
<b>Eligible capital</b>	<b>2,918</b>	<b>2,918</b>
Reserves	7,448	7,047
Minority interests	6	6
Income (positive/negative) from current year	852	1,001
<b>Eligible reserves</b>	<b>8,306</b>	<b>8,054</b>
<b>Tier 1 capital (before hybrid capital and deductions)</b>	<b>11,224</b>	<b>10,972</b>
<b>Hybrid capital loans subject to limits</b>	<b>0</b>	<b>0</b>
Proposed/actual dividend	-700	-600
Deferred tax assets	-17	-17
Intangible assets	-85	-69
Deductions for investments in credit institutions	-23	-22
IRB provisions shortfall (-)	-50	-72
Other items, net	-107	-93
<b>Deductions from original own funds</b>	<b>-982</b>	<b>-873</b>
<b>Tier 1 capital (net after deduction)</b>	<b>10,242</b>	<b>10,099</b>
- of which hybrid capital		
- of which core tier 1 capital	10,242	10,009
<b>Additional own funds</b>		
Securities of indeterminate duration and other instruments	561	543
Subordinate loan capital	0	0
Other additional own funds	0	0
<b>Tier 2 capital (before deductions)</b>	<b>561</b>	<b>543</b>
Deductions for investments in credit institutions	-23	-22
IRB provisions shortfall (-)	-50	-72
<b>Deductions from original additional own funds</b>	<b>-73</b>	<b>-94</b>
<b>Tier 2 capital ( net after deductions)</b>	<b>488</b>	<b>449</b>
Participations hold in insurance undertaking, reinsurance		
Pension assets in excess of related liabilities		
<b>Total own funds for solvency purposes</b>	<b>10,730</b>	<b>10,548</b>

The capital base (referred to as own funds in the CRD) is the sum of tier 1 capital and tier 2 capital after deductions and excluding capital related to insurance companies. The two main components in the capital base are core equity in the balance sheet and subordinated debt. Below is a detailed description of the items included in the capital base.

The capital ratio is calculated by dividing the capital base with RWA while the quotient is calculated from the capital base in relation to the capital requirement.

## 10.2 Core tier 1 capital and tier 1 capital

Tier 1 capital is defined as capital of the same or close to the character of eligible capital, eligible reserves and can also include also a limited part instrument hybrid capital loans (perpetual loans).

Core tier 1 capital is defined as original own funds including deductions following local regulations and also excluding potential hybrid capital.

#### ***10.2.1 Eligible capital***

Paid up capital is equal to the share capital contributed by shareholders, with potential deduction of repurchased own shares or own shares temporary included in trading portfolios are deducted from eligible reserves. Eligible capital also includes share premium capital.

#### ***10.2.2 Eligible reserves***

Eligible reserves consist primarily of retained earnings, other reserves, minority interest and income from current year. Retained earnings are earnings from previous years reported via the income statement. Other reserves are related to the capital part of untaxed reserves, revaluation and translation reserves referred to acquisitions and associated companies under the equity method. The equity interests of minority shareholdings in companies that are fully consolidated in the financial companies group are also included. Positive income from current year is included as eligible capital after verification by the external auditors. However, negative income must always be included as a deduction. Repurchased own shares or own shares temporary included in trading portfolios are deducted from eligible reserves.

#### ***10.2.3 Hybrid capital loans subject to limits***

The requirements for including undated loans in tier 1 capital is restricted and repurchase can normally not take place until five years after the loan originally is issued. Hybrid capital loans, undated subordinated loans, may be repaid only by decision from Board of Directors in Nordea and with the permission of the Finnish Financial Supervisory Authority. Further, there are restrictions related to step up conditions, order of priority, interest payments under constraint conditions and the level of amount that can be part of the tier 1 capital. Previous years the limit for including hybrid capital in the tier 1 capital has been restricted to 15% of total tier 1 capital but after decision by the Finnish FSA and valid from January 2009, the limit is changed to be at a maximum 50% of the tier 1 capital after relevant deductions. The new regulation includes different limitations depending on the terms in the hybrid capital loan issue. For hybrid capital loans including step up conditions or other conditions that could give incentive to repurchase, the limit of 15% still apply. If there are any surplus after applying the legal limit, exceeding amount can be transferred to tier 2 capital. The upper limit of 50 % refers to loans with convertible condition. For hybrid capital loans with non step up conditions, a limit of 35 % applies. The new rules are in accordance with adopted change in the CRD.

Currently there are no hybrid capital loans issued by Nordea Bank Finland or included in the capital base of Nordea Bank Finland.



#### ***10.2.4 Deductions from tier 1 capital***

##### *Proposed/actual dividend*

In relation to income for the period, corresponding dividend should be deducted. The amount is deducted from the tier 1 capital and amounts to proposed distribution to shareholders by decision of the annual general meeting of shareholders.

##### *Deferred tax assets*

In accordance with local legal requirements deferred tax assets has been deducted from the tier 1 capital. Deducted amount is based on accounting standards relevant for the groups of institutions which constitute the capital base.

##### *Intangible assets*

Intangible assets should be deducted from tier 1 capital. The significant part of deducted intangible assets contains of goodwill. Other intangible assets relates to IT software and development.

##### *Deductions for investments in credit institutions*

The capital base should be deducted for equity holdings and some other certain types of contributions to institutions that are not part of the financial companies group (in Nordea foremost associated companies). 50 percent should be deducted from tier 1 capital and 50 percent should be deducted from tier 2 capital.

##### *IRB provisions shortfall*

The calculation of the capital base is in accordance with the CRD and the Finnish legislation. The differences between EL and actual provision made for the related exposures are adjusted for in the capital base. The negative difference (when the EL amount is larger than the provision amount) is included in the capital base as shortfall. According to the rules in the CRD, the shortfall amount shall be deducted from the capital base and be divided equally into both tier 1 capital and tier 2 capital. For the purpose of the CRD transitional rules calculations of the shortfall is under Finnish regulation deducted from the RWA to be neutralised in a Basel I perspective. A positive difference (provisions exceed EL) can be included in tier 2 capital with certain limitations (maximum 0.6 percentage of IRB RWA).

##### *Other deduction*

Other deductions contains of pension assets in excess of related liabilities. Surplus net value of pension plans for employees should under certain circumstances be deducted from the tier 1 capital.

### **10.3 Additional own funds**

The principal of tier 2 capital has turned from an additional capital base item to items with the function of absorbing losses on a “gone concern” basis, i.e. after the failure of a firm. The tier 2 capital must be subordinated to depositors and general creditors of the bank. It can not be secured or covered by a guarantee of the issuer or related entity or include other arrangement that legally or economically enhances the seniority of the claim vis-à-vis depositors and general bank creditors.

### ***10.3.1 Tier 2 capital***

The tier 2 capital is mainly related to subordinated debt with some specific deductions. Tier 2 capital includes two different types of subordinated loan capital; perpetual loans and dated loans. The total tier 2 amount may not exceed tier 1 and dated tier 2 loans may not exceed half the amount of tier 1. The limits are set after deductions.

The basic principle for subordinated debt in the capital base is the order of priority in a default or bankruptcy situation. Under such conditions, the holder of the subordinated loan would be repaid after other creditors, but before shareholders. The subordinated debt will to some extent prevent the institution to go into liquidation.

The amount possible to include in the tier 2 capital related to dated loans is reduced if the remaining maturity is less than five years. Outstanding amount in the specific issue is deducted by 20 % for each year beyond five years.

As of end year 2010, Nordea Bank Finland holds EUR 561m in undated subordinated debenture loans. There are no significant movements compared to 2009.

### ***10.3.2 Other additional funds***

Other additional funds contains of adjustment to valuation differences in available for sale equities transferred to core additional own funds. Unrealised gains from equity holdings classified as available for sale securities can according to regulation only be included in tier 2 capital. Nordea Bank Finland has currently no such holdings affecting the capital base.

### ***10.3.3 Deductions from tier 2 capital***

#### ***Deductions for investments in credit institutions***

The capital base should be deducted for equity holdings and some other certain types of contributions to institutions that are not part of the financial companies group (in Nordea foremost associated companies). 50 percent should be deducted from tier 1 capital and 50 percent should be deducted from tier 2 capital.

#### ***IRB provisions excess (+) / shortfall (-)***

The differences between EL and provision made for the related exposures are adjusted for in the tier 2 capital, see section 10.2.4 for further explanation.

# 11. Appendix

## 11.1 Financial stability plan in Finland

The Nordic governments have established a number of measures in response to the global financial crisis. The measures were presented during the autumn 2008 and the beginning of 2009. Similar to many stability packages within EU, the measures include the following elements: implementation of a general framework for giving state support to ailing credit institutions, the creation of a stabilisation fund, a temporary guarantee program and a recapitalisation scheme. Nordea welcomes the actions taken by the Nordic governments to stabilise the markets.

Nordea did not participate in the Finnish scheme.

## 11.2 General description of pillar I, II and III

The Basel II framework was an international initiative with the purpose to implement a more risk sensitive framework for the assessment of risk for the calculation of regulatory capital, i.e. the minimum capital that the institution must hold. The intention was also to align the actual assessment of risk within the institutions with the assessment of the regulatory capital by allowing use of internal models also for credit risk.

From the beginning of 2007, the new CRD came into effect as the common framework for implementing the Basel II framework in EU. The CRD is built on three pillars:

- Pillar I – requirements for the calculation of the RWAs and capital requirement
- Pillar II – rules for the Supervisory Review Process (SRP), including the ICAAP
- Pillar III – rules for the disclosure of risk and capital management, including capital adequacy

The CRD contains a detailed set of minimum requirements to assure the conceptual soundness and integrity of the internal assessment. In order to prevent large short-term effects on capital requirements, the regulators have introduced transition rule (also known as capital floor) for all institutions implementing the new capital adequacy reporting. The transition rules, in force 2007-2009, with prolongation at least to the end of 2011, mark the lowest eligible capital base and relate directly to the capital requirements calculated under Basel I regulations. During 2007 the capital requirements were no less than 95% of the capital requirements calculated under Basel I regulations. For 2008 and 2009, the amounts of capital requirements were allowed to be 90% respectively 80% of the capital requirements calculated under Basel I regulations. The transition rules have been prolonged, at least for 2010 and 2011, and the capital requirement is not allowed to be below 80% of the capital requirement calculated under Basel I regulations.

### *Pillar I*

The new CRD is not changing the minimum required capital ratio of 8% compared to the previous regulation (Basel I). The changes are related to the definition and calculations of the RWA, which is the method used to measure the risk exposure of the reporting institution. The regulatory capital requirements are calculated using the following formula:

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**Minimum capital requirements = Capital base / RWA**

**where,**

**Minimum capital requirements  $\geq$  8%**

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The RWAs are calculated by using more sophisticated and risk sensitive methods than previously. Credit risk and market risk are two essential risk types like in Basel I, while operational risk is introduced as a new risk type in the CRD. The table below identifies the approaches available for calculating RWA in each risk type in accordance with the CRD:

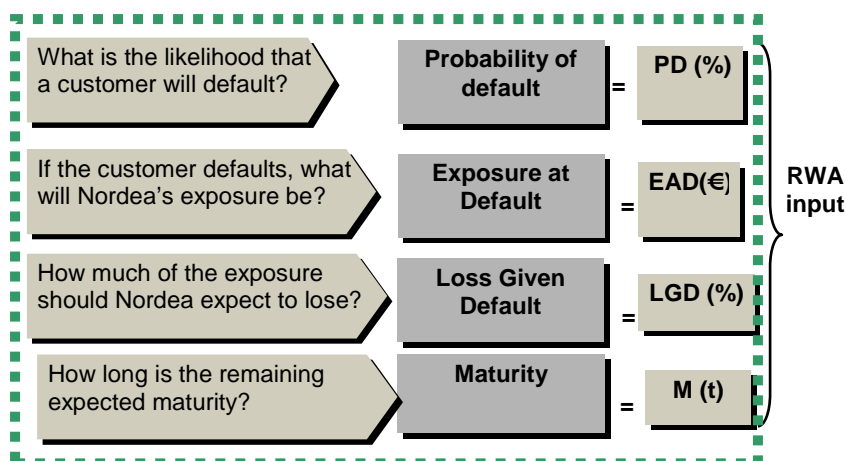
#### Primary approaches in the CRD

Approaches for reporting capital requirements		
Credit Risk	Market Risk	Operational Risk
(1) Standardised Approach	(1) Standardised Approach	(1) Basic Indicator Approach
(2) Foundation Internal Rating Based Approach (FIRB)	(2) Internal Models Approach	(2) Standardised Approach
(3) Advanced Internal Rating Based Approach (AIRB)		(3) Advanced Measurement Approach

The standardised approach for calculating credit risk is close to the previous Basel I regulation, except an additional possibility to use external rating for the counterparties and wider use of financial collateral. The RWA is set by multiplying the exposure with a risk weight factor dependent on the external rating and exposure class.

Credit risk according to FIRB is based on the internal rating and PD for each counterparty and fixed estimates for LGD and CCF, while Advanced IRB is based on internal estimates for PD, LGD and CCF

Below is an overview of the key parameters used in calculation of RWA in Pillar I.



## ***Pillar II***

Pillar II, or the SRP, comprises two processes:

- the ICAAP and
- the SREP

The SRP is designed to ensure that institutions identify their material risk and allocate adequate capital, and employ sufficient management processes, to support such risk. The SRP also encourages institutions to develop and use better risk management techniques in monitoring and measuring risk in addition to the credit, market and operational risk in the CRD. The ICAAP allows banks to review their risk management policies and capital positions relative to the risk they undertake. In ICAAP, the institution ensures that it has sufficient available capital to meet regulatory and internal capital requirements, even during periods of economic or financial stress. The ICAAP includes all components of risk management, from daily risk management of material risk to the more strategic capital management of the entire Group and its legal entities. The SREP is the supervisor's review of the institution's capital management and an assessment of the institution's internal controls and governance.

Other risk types, which are not covered by the minimum capital requirements according to pillar I, are typically liquidity risk, business risk, interest rate risk in the banking book and concentration risk. These are covered either by capital or risk management and mitigation processes under pillar II.

## ***Pillar III***

In the CRD it is also stipulated how and when institutions should disclose capital and risk management. The disclosure should follow the requirements according to the pillar III.

The main requirements are:

- Description of the Group structure and overall risk and capital management
- Regulatory capital requirements and the capital base
- Credit risk, including RWA calculations and loan losses
- Market risk
- Operational risk

## **11.3 Exposure classes for Credit risk**

A diversified credit portfolio can be divided into the exposure classes defined by the CRD. The basis for calculation of the exposure in the RWA formula is the division of exposure classes. Nordea is approved to use the FIRB approach for the exposure classes: institution, corporate and other non-credit obligation assets. For the exposure class retail the IRB approach is approved to be used. For the remaining exposure classes Nordea uses the Standardised Approach. Following is a description of what exposures are included in the different exposure classes.

### ***11.3.1 IRB exposure classes***

#### **Institution exposures**

Exposures to credit institutions and investment firms are classified as exposures to institutions. In addition, exposures to regional governments, local authorities and multilateral development banks are classified as exposures to institutions if they are not treated as exposures to sovereigns<sup>1</sup> according to regulations issued by the authorities.

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<sup>1</sup> Sovereigns include central governments, central banks, regional governments, local authorities and other public sector entities.

### **Corporate exposures**

Exposures that are not assigned to any of the other exposure classes are classified as corporate exposures. The corporate exposure class contains exposures that are rated in accordance to Nordea's internal guidelines.

### **Retail exposures**

Exposures to small and medium sized entities (with an exposure of less than EUR 250t) and to private individuals are included in the retail exposure class and defined in accordance to Nordea's internal guidelines for scoring.

### **Other non- credit obligation assets**

Assets that do not require any performance from any counterparty are classified as non credit-obligation assets.

#### *11.3.2 Standardised exposure classes*

### **Central governments and central banks**

Exposures to central governments and central banks are, subject to national discretion, treated with low risk if the counterparty is within European Economic Area (EEA) member states. Subject to national discretion, the risk weight of 0% is, for the majority of these exposures, applied in Nordea.

### **Regional governments and local authorities**

Exposures to regional governments and local authorities are included in this exposure class. Exposures to regional governments and local authorities are treated as exposures to the central government in whose jurisdiction they are established, with the exception of Norway, where a risk weight of 20% is applied.

### **Institution exposures**

Exposures to institutions are assigned a risk weight depending on the external rating, by an eligible rating agency, of the central government in the jurisdiction of the institution. In Poland, the risk weight of the exposure is determined according to the external rating of the institution. Specific rules also determine how to treat an exposure where no rating by an eligible rating agency exists. Therefore, the risk weights can differ from 0% to 150% for these exposures.

### **Corporate exposures**

Exposures to corporate rated by eligible rating agency are assigned a risk weight from 20% to 150%. Exposures without external rating are assigned a risk weight of 100%.

### **Retail exposures**

Retail exposures are assigned a risk weight of 75%.

### **Exposures secured by real estate**

Exposures that are secured by mortgages on residential or commercial real estate are included in this exposure class. Exposures secured by mortgages on residential real estate are assigned a risk weight of 35%. The risk weight is only reduced for the part of the exposure that is fully secured. Exposures that are secured by commercial real estate are subject to national discretions and the regulations differ between the Nordic countries.

### **Other**

- Exposures to administrative bodies and non-commercial undertakings (such as public sector entities) are, subject to decision by the local authority, assigned a risk weight of 0% to 100%.

- Exposures to named multilateral development banks are assigned a risk weight of 0%. Other multilateral development banks are assigned a risk weight according to the methods used for exposures to institutions.
- Exposures to named international organisations are assigned a risk weight of 0%. Other international organisations are assigned a risk weight of 100%.
- Past due items (items that are past due for more than 90 days). The unsecured part of any past due item are assigned a risk weight of 150% if value adjustments (allowances) are less than 20% and 100% if value adjustments (allowances) are no less than 20% of the unsecured part. The part of the past due items that are secured by residential real estate property are assigned a risk weight of 100% or 50% depending on the size of the value adjustment (above or below 20%) and national regulations.
- Short-term claims. Exposures reported as short-term claims receive a risk weight based on the short term external rating of the institution. Short-term exposures to institutions and corporate for which a short-term credit assessment by a nominated rating agency is available, are assigned a risk weight in accordance with a six step mapping scale made by the financial supervisory authorities. However, this exposure class is not used for exposures to institutions treated according to the central government risk weighted method.
- Other items
  1. Tangible assets, prepayments and accrued income where no counterpart can be determined, holdings of equity etc are assigned a risk weight of 100%.
  2. Cash are assigned a 0% risk weight.

## 11.4 Calculation of RWA

The calculation of exposure at default (EAD) in Nordea differs between approaches but also depending on the exposure classes within the IRB approach.

### 11.4.1 IRB approach

The FIRB approach is used for calculating the minimum capital requirements for exposure to institutions and corporate customers. Credit risk is measured using sophisticated formulas for calculating RWA. Input parameters are Nordea's internal estimate of PDs and input fixed by the financial authorities supervisory for LGD, EAD and maturity.

Internal estimates of PD, LGD and EAD are used for the IRB approach for retail exposure, which in turn is based on internal historical loss data.

#### 11.4.1.1 Exposure at Default (EAD)

The EAD is an estimation of the total exposure to the customer at the time of default. For on-balance items, EAD is normally the same as the booked value, such as the market value or utilisation. An off-balance product, such as a credit facility, does not contain the same risk as an on-balance exposure, since it is rarely fully utilised at the time of the customer's default. A CCF is multiplied to the off-balance amount to estimate how much of the exposure will be drawn at default. In the FIRB approach the CCFs are fixed by financial supervisory authorities.

#### 11.4.1.2 Probability of default (PD)

PD means the likelihood of default of a counterpart. The PD represents the long-term average of yearly default rates. The internal credit risk classification models (rating models for corporate customers and institutions and scoring models for retail customers) provide an estimation of the repayment capacity of a counterpart. The internal risk classification scale consists of 18 grades for non-defaulted customers and 3 grades for defaulted

customers. All customers with the same risk classification are expected to have the same repayment capacity; independent of the customers' industry, size, etc.

#### *11.4.1.3 Loss Given Default (LGD)*

The LGD measures the economic loss that can be expected if a customer goes default. The regulatory capital requirement is dependent on LGD.

For the FIRB institution and corporate exposure classes the LGD values are fixed by financial supervisory authorities. When setting the LGD to fixed levels the CRD has taken into account downturn in the economy.

The LGD value in the retail IRB approach is based on internal estimates. LGD estimates are based on the experience and practices in Nordea as well as the external environment in which the bank operates. Nordea uses LGD estimates that are appropriate for an economic downturn if those are more conservative than the long-run average. The LGD pools are based on collateral types. These codes are mapped to LGD pools depending on country and customer type (household or SME).

#### *11.4.1.4 Credit risk mitigation*

RWA and exposure are reduced by the recognition of credit risk mitigation techniques. Only certain types of collateral and some issuers of guarantees are eligible to reduce the capital requirement purposes. Furthermore the collateral management process and the terms in the collateral agreements have to fulfil the minimum requirements (such as procedures for monitoring of market values, insurance and legal certainty) in the capital adequacy regulations. Collateral items and guarantees which can reduce the capital requirement are called eligible collateral. The eligibility requirements are explicitly mentioned in the CRD for physical exposure in FIRB, which are currently used for corporate and institution exposure. Financial supervisory authorities may permit the use of other physical collaterals only if two specific requirements are met in addition to the general minimum requirements listed further down in the document. The first requirement is that there is a liquid market and the second that there are established market prices.

The reduction of the capital requirements is calculated in four ways, depending of the type of credit risk mitigation technique:

##### *1. Adjusted exposure amount*

The comprehensive method for financial collateral such as cash, bonds and stocks. The exposure amount is adjusted with regards to the financial collateral. The size of the adjustment depends on the volatility of the collateral and the type of exposure. Nordea uses volatility adjustments specified by the financial supervisory authorities (supervisory haircuts).

##### *2. Adjusted PD (substitution of PD)*

The substitution method is used for guarantees, which implies that the PD for the customer is substituted. This means that the credit risk in respect of the customer is substituted by the credit risk of the guarantor and the risk thereby reduced. Hence, an exposure fully guaranteed will be assigned the same capital requirement as if the loan was initially granted to the guarantor rather than the customer. The PD value of exposure is adjusted if the capital requirement for both the customer and the guarantor is calculated according to the IRB approach.

##### *3. Adjusted LGD*

The LGD value is reduced if the exposure in the IRB approach (i.e. to large corporate and institutions) is fully collateralised with real estates (commercial and residential), other physical collateral or receivables. The size of the LGD adjustment is stipulated by the CRD in the FIRB approach. The LGD value in the retail IRB approach is based on internal estimates.



#### 4. Adjusted risk weight

Netting agreements are mainly used for transactions in derivatives in the trading book. The exposure value is adjusted so that the capital requirements for credit risk reflect only the net position of derivative contracts with positive and negative values under the netting agreement. Netting across product categories is not used.

Nordea uses a wide variety of risk mitigation techniques in several different markets which contribute to risk diversification and credit protection. The different credit risk mitigation techniques such as collateral, guarantees, netting agreements and covenants are used to reduce the credit risk. All credit mitigation activities are not recognised for capital adequacy purposes since they are not defined as eligible, i.e. covenants. Loan documentations and similar agreements can include covenants such as financial ratios that the debtor has to comply with. Receivables with an original maturity of more than one year are not eligible for capital adequacy purposes. Another example is assets that could not be sold in a liquid market. Such assets could be pledged but are not assigned any value in the credit process, nor in the regulatory capital calculations.

##### *11.4.1.5 Maturity*

For exposure calculated with the FIRB approach, the maturity is set to standard values in the RWA calculation formula based on the estimates set by the financial supervisory authorities. The maturity parameter used is set to 2.5 years for the exposure types on-balance, off-balance and derivatives. For securities financing the maturity parameter is 0.5 years.

##### *11.4.2 Standardised approach*

The parts remaining in the standardised approach are foreign branches, subsidiaries in Poland, Luxemburg and Russia and the retail exposure in the finance companies as well as exposure towards sovereigns. The standardised measures credit risk pursuant to fixed risk weight and is the least sophisticated capital calculations. The application of risk weight in standardised is given by financial supervisory authorities and is based on the exposure class to which the exposure is assigned. Some exposure classes are derived from the type of counterparty while others are based on the asset type, product type, collateral type or exposure size.

The EAD of an on-balance sheet exposure in the standardised is measured net of value adjustments such as provisions. Off-balance sheet exposure is converted into EAD using CCF set by the financial supervisory authorities. Derivative contracts and securities financing has an EAD that is the same amount as the exposure.

In calculating RWA with the standardised approach, external rating may be used as an alternative to use the fixed risk weight. The external ratings must come from eligible external credit assessment institutions.

## List of abbreviations

ADF	Actual Default Frequencies
AIRB	Advanced Internal Rating Based approach
ALCO	Asset and Liability Committee
BCBS	Basel Committee on Banking Supervision
CCF	Credit Conversion Factor
CCO	Chief Credit Officer
CCR	Counterparty Credit Risk
CDO	Collateralised Debt Obligation
CEBS	Committee of European Bank Supervisors
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CLN	Credit Linked Notes
CLS	Continuous Linked Settlement
CMO	Collateralised Mortgage Obligations
CP	Commercial Paper
CRD	EU's Capital Requirements Directive
CRO	Chief Risk Officer
EAD	Exposure at Default
EC	Economic Capital
ECC	Executive Credit Committee
EEA	European Economic Area
EAD	Exposure at Default
EL	Expected Loss
EP	Economic Profit
ERAT	Environmental Risk Assessment Tool
EU	European Union
FIRB	Foundation Internal Rating Based approach
FX	Foreign Exchange
GCC	Group Credit Committee
GEM	Group Executive Management
GEM CC	Group Executive Management Credit Committee
GICS	Global Industries Classification Standard
IAS	International Accounting Standard
ICAAP	Internal Capital Adequacy Assessment Process
IFC	International Finance Corporation
IFRS	International Financial Reporting Standard
IRB	Internal Rating Based approach
LGD	Loss Given Default
NBF	Nordea Bank Finland
NII	Net Interest Income
OTC	Over The Counter (derivatives)
PD	Probability of Default
PIT	Point-in-Time
QRA	Quality and Risk Analysis
RFF	Rolling Financial Forecast
RWA	Risk Weighted Amount
S&P	Standard & Poor's
SA	Standardised approach

SIIR	Structural Interest Income Risk
SME	Small and Medium-sized Enterprises
SPE	Special Purpose Entity
SPRAT	Social and Political Risk Assessment Tool
SRP	Supervisory Review Process
SREP	Supervisory Review and Evaluation Process
TTC	Through-the-Cycle
VaR	Value at Risk
tVaR	Tail-VaR