



Capital and Risk Management (Pillar III)

Nordea Group 2011

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Nordea hereby presents its capital position and how the size and composition of the capital base is 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). This disclosure follows the Swedish Capital adequacy and large exposure act (2006:1371) and the Swedish Financial Supervisory Authority's (Swedish FSA) regulation and general guidelines regarding public disclosure of information concerning capital adequacy and risk management (FFFS 2007:5, 2010:12, 2011:3 and 2011:46), which are based on the CRD.

2011:3 and 2011:46), which are based on the CRD.

This report constitutes the comprehensive disclosure on risks, risk management and capital management. In a summarised form, the main disclosure is also presented in Nordea Group's Annual Report 2011.

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. These reports are presented on www.nordea.com and the key data on capital adequacy is also presented in the annual report of respective legal entity. The full pillar III disclosure is made annually and the periodic information is published quarterly, included in the quarterly 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 set-up in Nordea. Nordea has stated the common principles in a policy and instruction for disclosing information on capital adequacy in the Nordea Group.

# 1. Highlights of 2011

Nordea continued to show a solid risk position and credit quality as well as further improved capital ratios in 2011. This was reflected in lower loan loss ratio of 23 basis points, positive migration and an 11.2% core tier 1 capital ratio excluding transition rules, although weaker development and higher loan losses were seen towards the end of the year.

The macroeconomic recovery in the Nordic countries slowed down while the turbulence in the financial markets intensified in the second half of 2011. Nordea has continued to show a solid risk position and has continued to have a strong name in the funding market, with maintained high activity also in the long-term funding market.

Nordea is confident and well-prepared for the future, due to strong profitability, good quality in the well diversified credit portfolio, a strong capital base and a diversified funding base. From what is known today, Nordea will be able to meet the Basel III capital requirements and LCR requirements in due time for implementation.

#### Continued improving credit quality and strong risk management

Credit quality improved in 2011 as net loan losses decreased to a loan loss ratio of 23 basis points and rating migration also remained positive in the second half of the year. Impaired loans ratio has stabilised and decreased somewhat to 139 basis points. In 2011 the credit exposure increased by 13%, with increases from both the corporate and household segments.

Nordea's market risk-taking activities are well diversified and oriented towards Nordic and European markets. The Group's market risk is to a large extent driven by interest rate risk. The total market risk VaR in 2011 was on average EUR 72m.

#### Capital ratios already at strong levels - expected to further improve with profits

The core tier 1 capital ratio excluding transition rules, has further increased in 2011, due to the strong profit generation of the group and the RWA efficiency activities, to 11.2% at the end of 2011 (10.3%).

Nordea has during 2011 been defined by the Financial Stability Board (FSB) as a global systemically important bank (G-SIB). In Sweden, the core tier 1 ratio requirement for the largest banks has been presented in 2011, and includes additional requirement for globally as well as domestically systemically important banks. Nordea's core tier 1 ratio is above the expected requirement for 2013-2014, excluding countercyclical buffers, of 10%, and the ratio is expected to be further increased with the retained profits after dividends during this period in order to meet the requirements expected for 2015.

### Strong funding name maintained 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, by virtue of its well-recognised name and strong rating, has been able to actively use all its funding programmes during 2011. Nordea has continued to see an inflow of new investor names, both in Europe and in the US. Approximately EUR 32bn was issued in long-term debt during 2011, excluding Danish covered bonds (last year EUR 33bn). In the first half of the year, primarily senior unsecured debt was issued, and in the second half of the year, primarily covered bonds were issued within the long-term funding.

#### Strength in adverse scenarios - stress testing

During 2011 Nordea has performed several internal stress tests in order to evaluate the effects of an economic downturn as well as effects from specifically identified high-risk areas. In addition, the Nordea Group has been subject to external stress tests performed by financial supervisors, central banks and equity analysts. Nordea participated in the EU-wide stress test as well as the recapitalisation exercise for European banks which was coordinated by the European Banking Authority (EBA). The results of the EBA stress test as well as the recapitalisation exercise clearly demonstrated that Nordea is well capitalised.

### Basel III - new regulations for capital and liquidity risk

During 2011, more clarity has emerged as to the main elements of the new regulatory requirements for capital and risk - the Capital Requirement Directive IV (CRD IV) and the Solvency II frameworks. In Nordea, there is a strong focus on capital, liquidity and risk management within the organisation and Nordea is well-prepared to meet new regulatory requirements.

In the forthcoming years banks will be subject to changes not only in additional capital and liquidity requirements but also other closely related regulations are emerging. It is the additional capital surcharge of so called Systemically Important Banks (SIBs) both on global (G-SIBs) and on domestic level (D-SIBs), a new policy for dealing with bank failure (crisis management) and changes to the accounting regulation that will have an effect on capital and risk.

# 2. Governance of risk and capital management

Risk, liquidity and capital management are key success factors in the financial services industry. The maintaining of risk awareness in the organisation is incorporated in the business strategies. Nordea has defined clear risk, liquidity and capital management frameworks, including policies and instructions for different risk types, capital adequacy and capital structure.

**2.1 The Financial Group in the capital adequacy context** The information given in this report refers to the Financial Group of Nordea Bank AB (publ), with corporate registration number 516406-0120. Nordea is supervised on different levels and subject to ensuring sufficient capital on all entities and subgroups. In this report, focus is mostly on the Financial Group due to the pillar III legislation but risks in the insurance part are also described in a separate

The financial statements are published quarterly and the consolidated financial statements include the accounts of the parent company Nordea Bank AB (publ) including subsidiaries according to International Accounting Standard (IAS) 27. In the Financial Group, the insurance companies of the group are not consolidated, which is a difference to the treatment for accounting purposes. Instead, holdings in insurance subsidiaries and associated undertakings are deducted from the capital base in the capital adequacy report. Table 2.1 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 and Board Risk Committee*

The Board of Directors has the ultimate responsibility for limiting and monitoring the Group's risk exposure as well as for setting the targets for the capital ratios. Risk is measured and reported according to common principles and policies approved by the Board of Directors, which also decides on policies for credit, market, liquidity, business, life, operational risk management and the ICAAP. 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 furthermore decides on the limits for market and liquidity risk in the Group.

The Board Risk Committee assists the Board of Directors in fulfilling its oversight responsibilities concerning management and control of the risks, risk frameworks, controls and processes associated with the Group's operations.

#### Responsibility of CEO and GEM

The Chief Executive Officer (CEO) has the 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 Structural Interest Income Risk (SIIR).

The CEO and GEM regularly review reports on risk exposure and have established a number of 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 and financial risks as well as capital management for decision by the CEO in GEM.

The Risk Committee, chaired by the Chief Risk Officer (CRO), oversees the management and control of the Nordea Group's risks on an aggregate level and evaluates the sufficiency of the risk frameworks, controls and processes associated with these risks. Furthermore, the Risk Committee decides, within the scope of resolutions adopted by the Board of Directors, the allocation of the market risk limits as well as the liquidity risk limits to the risk-taking units Group Treasury and Nordea 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 Risk Committee has established two sub-committees for its work and decision-making within specific risk areas.

The two sub-committees are the Group Valuation Committee (GVC) and the Credit Risk Model Validation Committee (CRMVC). GVC addresses issues related to the valuation framework of traded financial instruments, including standards, processes and control of valuation. The responsibility of CRMVC is to review and approve the validation of credit risk models and parameter estimation (PD, LGD and CCF).

The Group Executive Management Credit Committee (GEM CC) and Executive Credit Committee (ECC) are chaired by the CRO and the Group Credit Committee Retail Banking (GCCR) and the Group Credit Committee

Wholesale Banking (GCCW) 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 for all risk types, where it is deemed necessary.

#### Responsibility of CRO and CFO

In figure 2.1 the governance structure of risk, liquidity and capital management in Nordea is illustrated.

Figure 2.1 Governance of risk, liquidity and capital management

#### Risk, Liquidity and Capital Management governance structure



#### Risk, Liquidity and Capital Management responsibilities

Chief Financial Officer (CFO)	Chief Risk Officer (CRO)
Group Corporate Centre (Head: CFO) Liquidity management framework Capital management framework	Group Risk Management (Head: CRO) Risk management framework Capital adequacy framework Monitoring and reporting

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

Risk appetite within Nordea is defined as the level and nature of risk that the bank is willing to take in order to pursue the articulated strategy on behalf of the shareholders, and is defined by constraints reflecting the views of shareholders, debt holders, regulators and other stakeholders.

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. The Board Risk Committee assists the Board of Directors in fulfilling these responsibilities by reviewing the development of the risk profile in relation to risk appetite and making recommendations regarding changes to the Group's risk appetite.

Nordea's risk appetite framework is based on explicit top-down risk appetite statements ensuring comprehensive coverage of key risks faced by the Group. These statements collectively define the boundaries for Nordea's risk-taking activities and will also help identify areas with scope for potential additional risk taking. The statements are approved by the Board of Directors, and set the basis for the risk reporting structure. Moreover, the framework supports management decision processes such as planning and target setting.

The risk appetite framework considers key risks relevant to Nordea's business activities and on an aggregate level includes credit risk, market risk, operational risk, solvency, compliance/non-negotiable risks, and liquidity risk.

An overview of the risk appetite measures is provided in figure 2.2.

The risk appetite framework includes the cascading of risk appetite levels to business areas and segments in terms of allocated risk level thresholds and operational risk limits. On these levels Group Risk Management supports the customer areas with setting risk limits that reflect the overall risk appetite, set by the Board of Directors.

Stress testing is an integral component within the risk appetite framework. Stress tests used within the risk appetite framework ensure alignment between scenarios used in the regulatory capital framework and the risk appetite framework, and therefore the planning and target setting process.

Figure 2.2 Overview of the risk appetite measures

Risk type	Metric				
	Single customer concentration				
	Industry concentration				
	Geographic concentration				
Credit risk	Expected loss				
	Loan loss				
	Probability of Default				
	Market risk share of Economic Capital				
Market risk	Maximum reported market risk loss per quarter				
	Maximum economic market risk loss per quarter				
	Monitor top risks				
Operational risk	Operational risk loss				
	Reputational impact				
	Tier 1 capital ratio				
Solvency	Leverage ratio				
	Target credit rating				
Compliance /	Regulatory requirements				
non-negotiable risks	Internal policy and external regulatory breaches				
Liquidity	Survival horizon				

#### 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. The Nordea Group 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 and quarterly basis for credit and operational risk.

Risk appetite reporting is quarterly reported to the Risk Committee, GEM, the Board Risk Committee and the Board of Directors.

Risk reporting, covering credit, market, operational risk together with liquidity risk and structural interest income risk as well as the capital base, is regularly made to Risk Committee, GEM and Board of Directors. In addition, the

Board of Directors in each legal entity receives risk reporting which covers market, credit and liquidity risk per legal entity. Reporting of the internal required capital includes all types of risks and is reported regularly to ALCO.

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 within capital adequacy

There are different risk types which are described more in detail below in accordance with how they are structured within the Capital Requirements Directive (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 credit risk arises mainly from various forms of lending, but also from guarantees and documentary credits, such as letters of credit. Furthermore, credit risk includes counterparty risk, which is the risk that a counterpart in a foreign exchange (FX), interest rate, commodity, equity or credit derivative contract defaults prior to maturity of the contract and Nordea at that time has a claim on the counterpart. 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 portfolios and financial instruments, also known as market price risk, as a result of movements in financial market variables. The market price risk exposure relates to interest rates, credit spreads, FX rates, equity prices, option volatilities 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 ,that is 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. In order to measure the exposure, a number of liquidity risk measures have been developed.
- Business risk is 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. The interest rate risk inherent in the banking book is measured in several ways on a daily basis and in accordance with the financial supervisory authorities' requirements.
- 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 market risk in the economic capital framework.
- 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 received approval by the Financial Supervisory Authorities (FSA) 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 for using the Internal Rating Based (IRB) approach for the retail exposure class in Denmark, Finland, Norway and Sweden (with the exception of the Finance companies in all countries which were not applied for). In May 2011, Nordea was approved to use the IRB approach for the cor-

porate and retail portfolios stemming from the acquisition of the Danish Fionia Bank A/S. The standardised approach is currently used for the remaining portfolios. Nordea aims to continue the roll-out of the IRB approaches in forthcoming years.

Table 2.1 Specification over group undertakings consolidated/deducted from the Nordea Financial Group, 31 December 2011

	Number of shares	Book value EURm	Voting power of holding	Domicile	Consolidation method
Group undertakings included in the Nordea Financial Gro	ир				
Nordea Bank Finland Plc	1,030,800,000	5,955	100%	Helsinki	purchase method
Nordea Finance Finland Ltd			100%	Espoo	purchase method
Nordea Bank Danmark A/S	50,000,000	3,509	100%	Copenhagen	purchase method
Nordea Finans Danmark A/S			100%	Copenhagen	purchase method
Nordea Kredit Realkreditaktieselskab			100%	Copenhagen	purchase method
Fionia Bank A/S			100%	Odense	purchase method
Nordea Bank Norge ASA	551,358,576	2,406	100%	Oslo	purchase method
Nordea Eiendomskreditt AS			100%	Oslo	purchase method
Nordea Finans Norge AS			100%	Oslo	purchase method
PRIVATmegleren AS			67%	Oslo	purchase method
Nordea Bank Polska S.A.	55,061,403	362	99%	Gdynia	purchase method
OOO Promyshlennaya Companiya Vestcon	4 601 042 690	6E0	1000/	Magazur	muundhaaa maathad
(Orgresbank) OJSC Nordea Bank	4,601,942,680	659	100% 100%	Moscow Moscow	purchase method purchase method
OJSC Nordea dank			100%	Moscow	purchase method
Nordea Hypotek AB (publ)	100,000	1,898	100%	Stockholm	purchase method
Nordea Fonder AB	15,000	229	100%	Stockholm	purchase method
Nordea Bank S.A.	999,999	454	100%	Luxembourg	purchase method
Nordea Finans Sverige AB (publ)	1,000,000	116	100%	Stockholm	purchase method
Nordea Fondene Norge Holding AS	1,200	29	100%	Oslo	purchase method
Nordea Eijendomsinvestering A/S	1,000	29	100%	Copenhagen	purchase method
Nordea Investment Management AB	12,600	230	100%	Stockholm	purchase method
Nordea Invest Fund Management A/S	25,000	8	100%	Copenhagen	purchase method
Nordea Investment Fund Company Finland Ltd	3,350	138	100%	Helsinki	purchase method
Nordic Baltic Holding (NBH) AB	1,000	0	100%	Stockholm	purchase method
Nordea Life Holding AB	1,000	690	100%	Stockholm	purchase method
Other companies		1			purchase method
Total included in the capital base		16,713			
	Number of shares	Book value EURm	Voting power of holding	Domicile	Consolidation method
Group undertakings deducted from the capital base	runiber of shares	EORIII	nolunig	Domiche	nietriod
Nordea Life Holding AB, including debts from parent company		1,212	100%	Stockholm	
Total group undertakings deducted from		1,212	10070	Blockfloiiii	
the capital base		1,212			
Over 10 % investments in credit institutions deducted from the capital base					
Eksportfinans ASA		160	23%	Oslo	
Luottokunta		49	27%	Helsinki	
NF Fleet Oy		2	20%	Espoo	
LR Realkredit A/S		4	39%	Copenhagen	
KIFU-AX II A/S		3	25%	Copenhagen	
Axel IKU Invest A/S		1	33%	Billund	
Nordea Thematic funds of Funds KS		10	16%	Copenhagen	
INN KAP 2		0	15%	Copenhagen	
Symbion Capital I		1	17%	Copenhagen	
Norges Investor III AS		1	16%	Copenhagen	
Other		3		1 0	
Total investments in credit institutions deducted					-
from the capital base		234			

# 3. Capital position

Nordea have during the year strengthened the capital position in terms of modest RWA growth and high profit generation. The New Normal strategy delivered on capital efficiency which gave a positive impact on the capital position and which partly counteracted the effect from implementation of CRD III. During the year, Standard & Poor's affirmed, among other rating agencies, Nordea's AA- rating with a stable outlook, stating that the bank has a strong business position with adequate capital, earnings and resilient risk profile.

#### 3.1 Capital adequacy assessment

Banks need to keep sufficient capital to cover all risks taken (required capital) over a foreseeable future. In order to do that Nordea strives to attain efficient use of capital through active management of the balance sheet with respect to different asset, liability and risk categories. Nordea's goal is to enhance returns to the shareholders while maintaining a prudent risk and return relationship. Strong capital and RWA management supports and underpins the strategic visions. In addition, it provides resistance against unexpected losses that arise as a result of the risks taken within the Group.

The ICAAP, see chapter 10, is established to determine internal capital requirements that reflect the risks and to assess the adequacy of the capital.

#### 3.2 Regulatory capital requirements

In table 3.1, an overview of the capital requirements and the risk weighted amounts (RWA) as of December 2011 split by the different risk types is presented in comparison with the previous year. The credit risk comprises approximately 88% of the pillar I risk, while operational risk accounts for 8% of the capital requirements and market risk comprises 4% of the capital requirements.

The table also includes information about the approach used for calculation of the capital requirements. Out of the total capital requirements for credit risk exposure, 77% of the exposure has been calculated with the IRB approach and 23% with the standardised approach.

The transition rules condition that the capital requirements are not allowed to be below 80% of the capital

requirements calculated under Basel I regulations. The RWA for credit risk, market risk and operational risk of EUR 185.2bn is adjusted with EUR 38.6bn due to transition rules, ending at a total RWA of EUR 223.8bn including transition rules.

The RWA excluding transition rules of EUR 185.2bn, ended on the same level as previous year despite the growth in exposures. With the adoption of the CRD III amendment, new risk types under the internal approach have been introduced. For Nordea this includes additional capital charge for stressed VaR, incremental and comprehensive risk. In addition, under the standardised approach the risk weights for specific equity risk have increased. The total CRD III impact for the Nordea Group is an increase of EUR 4.0bn in market risk RWA. The increase in market risk was partly offset by continued improvement in credit quality and RWA optimisation activities. The total impact from improved credit quality affected RWA with a reduction by 2.5%.

In figure 3.1 the different drivers behind the development of RWA are disclosed.

The credit quality in the loan portfolio has improved during the year both as result of migration but also due to new corporate lending with higher rating than average. The average risk weight decreased from 57% to 53% as well as the average PD, which decreased from 0.76 to 0.59 in the corporate portfolio. The growth during 2011 is seen in all customer segments such as corporate, retail and institutions. The FX rates by end 2011 were almost on the same level as end 2010, therefore the impact on RWA was minor. As part of the New Normal strategy, efficient RWA management have been in focus during the year and resulted in a reduction of RWA equal to EUR 5.4bn. Examples of activities have been enhanced collateral sourcing, review of asset class and product segmentation leading to improved data quality as well as IRB approval of the Fionia portfolio in Nordea Bank Danmark.

Figure 3.1 Drivers behind the development of RWA excluding transition rules

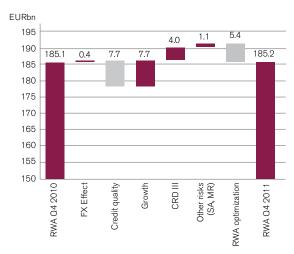


Table 3.1 Capital requirements and RWA

The state of the s				
	2011	2010		
RB of which corporate of which institution of which retail of which retail SME of which retail sME of which retail mortgage of which retail other of which other standardised of which sovereign of which institution of which corporate of which retail of which retail of which standardised of which sovereign of which institution of which corporate of which retail of which retail of which other  Market risk¹ of which trading book, Internal Approach of which trading book, Standardised Approach of which banking book, Standardised Approach Departional risk Standardised	Capital requirements	RWA	Capital requirements	RWA
Credit risk	12,929	161,604	13,173	164,662
IRB	9,895	123,686	10,028	125,346
– of which corporate	6,936	86,696	7,204	90,047
– of which institution	897	11,215	722	9,021
– of which retail	1,949	24,367	1,964	24,556
– of which retail SME	1,041	13,017	1,059	13,241
– of which retail mortgage	800	10,005	801	10,015
– of which retail other	108	1,345	104	1,299
– of which other	113	1,408	138	1,722
Standardised	3,034	37,918	5,277	39,316
- of which sovereign	43	536	35	434
- of which institution	90	1,127	133	1,665
- of which corporate	1,885	23,557	1,999	24,987
- of which retail	795	9,934	781	9,760
- of which other	221	2,764	2,329	2,470
Market risk <sup>1</sup>	652	8,144	461	5,765
- of which trading book, Internal Approach	390	4,875	105	1,317
- of which trading book, Standardised Approach	206	2,571	278	3,469
- of which banking book, Standardised Approach	56	698	78	979
Operational risk	1,236	15,452	1,176	14,704
Standardised	1,236	15,452	1,176	14,704
Sub total	14,817	185,200	14,810	185,131
Adjustment for transition rules				
Additional capital requirement according to transition rules	3,087	38,591	2,370	29,629
Total	17,904	223,791	17,180	214,760

<sup>1)</sup> Note that the comparison figures are not restated with respect to CRD III.

Table 3.2 Key capital adequacy figures

EURbn	Q4 2011	Q3 2011	Q2 2011	Q1 2011	Q4 2010
RWA including transition rules	223.8	220.4	212.9	213.8	214.8
RWA excluding transition rules	185.2	183.0	179.9	181.7	185.1
Capital requirement including transition rules	17.9	17.6	17.0	17.1	17.2
Core tier 1 capital	20.7	20.2	19.8	19.4	19.1
Tier 1 capital	22.6	22.1	21.7	21.3	21.0
Capital base	24.8	24.7	24.9	24.4	24.7
Capital ratios excl. transition rules					
Core tier 1 ratio excluding transition rules	11.2%	11.0%	11.0%	10.7%	10.3%
Tier 1 ratio excluding transition rules	12.2%	12.1%	12.1%	11.7%	11.4%
Capital ratio excluding transition rules	13.4%	13.5%	13.8%	13.5%	13.4%
Capital adequacy quotient (Capital base /capital requirement)	1.7	1.7	1.7	1.7	1.7
Capital ratios incl. transition rules					
Core tier 1 ratio including transition rules	9.2%	9.2%	9.3%	9.1%	8.9%
Tier 1 ratio including transition rules	10.1%	10.0%	10.2%	10.0%	9.8%
Capital ratio including transition rules	11.1%	11.2%	11.7%	11.4%	11.5%
Capital adequacy quotient (Capital base / capital requirement)	1.4	1.4	1.5	1.4	1.4

Figure 3.2 Capital adequacy ratios

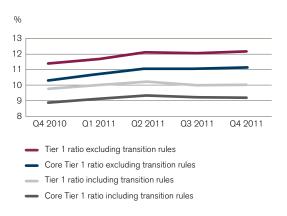
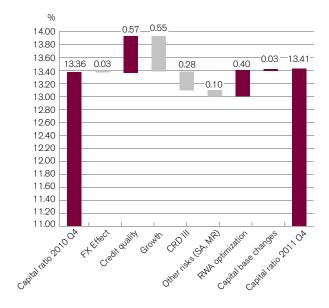


Figure 3.3 Development of capital ratio



#### 3.3 Capital ratios

The Group's core tier 1 capital ratio, excluding transition rules, was 11.2% at the end of the fourth quarter and was strengthened by 0.9% point from 2010. Improved capital ratios have been achieved by strong profit generation and a modest increase in risk weighted amounts (RWA). The transition rules create a need to manage the bank using a variety of capital measurements and capital ratios. Table 3.2 shows that the regulatory transition rules comprise a floor on Nordea's capital requirements when compared to Basel II (pillar I) minimum requirements.

The tier 1 excluding transition rules ended at 12.2% (11.4%) while corresponding capital ratio ended at 13.4% which was on the same level as 2010, The core tier 1 ratio including transition rules was 9.2% (8.9%), while tier 1 ratio and the capital ratio including transition rules was 10.1% (9.8%) respectively 11.1% (11.5%).

In figure 3.2 the development of the core tier 1 ratios and tier 1 ratios are illustrated.

#### 3.4 Financial conglomerate

The capital requirements valid for financial conglomerates are stated in Swedish Law (Act 2006:531). The Swedish FSA had until end 2009 defined Nordea as a financial conglomerate. During 2010 the Sampo Group share in Nordea reached above 20%, hence Nordea is included in the Sampo Conglomerate and is therefore no longer subject to financial conglomerate regulatory requirements.

# 4. Credit risk

The overall credit quality is solid with strongly rated customers and continued positive migration. Nordea's credit portfolio is well diversified both in terms of industry sectors and geography and has no direct exposure to the Euro crisis. Loan losses decreased from last year, although an increase was seen towards the end of the year, mainly from shipping and Denmark.

### 4.1 Credit risk management

#### 4.1.1 Governance of credit risk

Group Credit is responsible for the credit process framework and 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, besides ensuring that all incurred losses are covered by adequate allowances. 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 credit decision-making authorities on different levels in the organisation. The rating and exposure of the customer determine at what level the decision will be made (see figure 4.1). The credit decision-making structure has been adjusted with effect from the third quarter of 2011 to reflect organisational changes in the Group in the second quarter of 2011. The Group Executive Management Credit Committee (GEM CC) decides on proposals for the largest exposures and proposals related to major principle issues. Responsibility for the credit risk lies with the customer responsible unit. Customers are assigned a rating or risk grade (based on scoring) in accordance with the framework for quantification of credit risk.

#### 4.1.2 Management of credit risk

Credit risk is defined as the risk of loss if customers 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 issued guarantees and documentary credits, such as letters of credit where Nordea has potential claims on the customers. Furthermore, credit risk may also include counterparty credit risk, transfer risk and settlement risk. Counterparty credit risk is the risk that the counterpart in an FX, interest, commodity, equity or credit derivatives

Figure 4.1 Credit decision-making structure for main operations



contract defaults prior to maturity of the contract at which time Nordea 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 credit risk and settlement risk is available in section 4.4.5. Transfer risk is a credit risk attributable to the transfer of money from the country where the borrower is domiciled, and is affected by changes in the economic and political situation of the countries concerned. See section 4.8.3 for further information about transfer risk.

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 loan portfolio
- High cyclicality and/or volatility of the industry
- Special skills and knowledge required

There is usually a cap set for the Group in such an industry. All industry credit policies are decided by the Executive Credit Committee and reported annually to the Board Risk Committee.

Decisions regarding credit risk limits for customers and customer groups are made by the relevant decision-making 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 fac-

tors. 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 his/her debt obligations in full and the situation cannot be satisfactorily remedied, the customer must be tested for impairment. See section 4.1.6 for more details on impairment.

If credit weakness is identified in relation to a customer exposure, the exposure is assigned special attention in terms of more frequent reviewing 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 work-out team is set up to support the customer responsible unit. Nordea has a project organisation for handling work-out credits for corporate customers. Individual work-out 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 also assessed and the actions related to handling of work-out customers are reviewed and followed up.

The environmental risks of corporate customers are taken into account in the overall risk assessment through the Environmental Risk Assessment Tool (ERAT). Social and political risks are taken into account by the Social and Political Risk Assessment Tool (SPRAT). For larger project finance transactions, Nordea 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 Measurement of credit risk

Credit risk is measured, monitored and segmented in different ways. On-balance lending constitutes the major part of the credit portfolio and the basis for impaired loans and loan losses. Credit risk in lending is measured and presented as the principle amount of on-balance sheet claims, i.e. loans to credit institutions and the public, and off-balance sheet potential claims on customers and counterparts, net after allowances. Credit risk exposure also includes the risk related to derivative contracts and securities financing. Nordea's loan portfolio is broken down by segment, industry and geography.

One way of assessing credit quality is through analysis of the distribution across rating grades for rated corporate customers and institutions, as well as the distribution across risk grades for scored household and small business customers, i.e. retail exposures.

#### 4.1.4 Credit risk appetite

Nordea's risk appetite framework forms the basis for a holistic risk reporting structure that was implemented in 2011 and supports key decision processes such as strategy, planning and target setting.

The credit risk appetite statements are defined in terms of credit risk concentration (limits for single name(s), specific industries and geographies), long-term credit quality (expected loss), short-term credit quality (probability of default) and loan loss under plausible stress scenario.

#### 4.1.5 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. 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 Nordea and that loans and pledge agreements as well as collaterals are legally enforceable. Nordea is therefore entitled to liquidate collateral in the event of the obligor's default and Nordea 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
- Insurance policies (capital assurance with surrender value)

For each type of collateral, more specific instructions are added to the general valuation principle. A specific maximum collateral ratio is set for each type. In the calculation of risk weighted amounts (RWA), the collateral must fulfil certain eligibility criteria.

For large exposures, syndication of loans is the primary tool for managing concentration risk, while credit risk mitigation by the use of credit default swaps is applied to a very limited extent.

Covenants in credit agreements do not substitute collateral, but may be of great help as a complement to both secured and unsecured exposures. All exposures of sub-

stantial size and complexity include appropriate covenants. Financial covenants are designed to react to early warning signs and are carefully followed up.

#### 4.1.6 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. A need for 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. Exposures with provision are considered as impaired. The size of the provision is equal to the estimated loss, which is the difference between the book value of the outstanding exposure and the discounted value of the future cash flow, including 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 downgrades of customers, as well as new customers entering 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.

#### 4.2 Link between credit risk exposure and the balance sheet

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 II. 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 14.3.

Original exposure is the exposure before taking into account substitution effects stemming from credit risk mitigation, credit conversion factors for off-balance exposure and allowances within the standardised approach. In this report, however, exposure is defined as exposure at

default (EAD) for IRB exposure and exposure value for standardised exposure if nothing else is stated. Credit risk exposure presented in this report, in accordance with the CRD, is divided between exposure classes where each exposure class is divided into exposure types as follows:

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

Items presented in the Annual Report, in accordance with the accounting standards, are divided as follows:

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

Table 4.1 shows the link between the CRD credit risk exposure and items presented in the Annual Report.

#### On-balance sheet items

As shown in table 4.1, the following items have been excluded from the balance sheet, when calculating on-balance exposure in accordance with the CRD:

- Market risk related items in the trading book, such as certain interest-bearing securities and treasury bills.
- Repos, derivatives and securities lending. These transactions are either included in the calculation of market risk in the trading book or reported as separate exposure types (derivatives or securities financing).
- Life insurance operations, due to solvency regulation.
- Other, mainly allowances, intangible assets and deferred tax assets.

#### Off-balance sheet items

The following off-balance sheet items specified in the Annual Report are excluded when off-balance exposure is calculated in accordance with the CRD:

- Life insurance operations, due to solvency regulation.
- Assets pledged as security for own liabilities and "Other assets pledged" (apart from leasing). These transactions are reported as a separate exposure type, securities financing.
- Derivatives

#### Derivatives and securities financing

It should be noted that derivatives are both included onbalance (i.e. positive fair value without netting) and offbalance (i.e. nominal amounts) in accordance to accounting standards. However, in the CRD, the derivatives and securities financing are reported as seperate exposure types. The calculation method used in the CRD is based

Table 4.1 Specification of on-balance sheet and off-balance sheet items for the Nordea Group, 31 December 2011

EURm	Balance	Items	Repos, derivatives,	Life			Credit	
On-balance	sheet (accounting)	related to market risk	securities lending	insurance operations	Other	Original Exposure	Conversion Factor %	Exposure
On-balance sheet items								
Cash and balances with central banks	3,765			-1		3,764	100%	3,764
Treasury bills, other interest-bearing								
securities and pledged instruments	100,746	-26,019		-23,419		51,308	100%	51,308
Loans to credit institutions <sup>1</sup>	51,865		-5,513		-563	45,789	100%	45,789
Loans to the public <sup>2</sup>	337,203		-26,784	-878	2,747	312,288	100%	312,049
Derivatives	171,943		-171,929	-14				
Intangible assets	3,321			-335	-2,986			
Other assets and prepaid expenses	47,361	-20,122	-30	-20,073	-443	6,693	100%	6,693
<u>Total</u>	716,204	-46,141	-204,256	-44,720	-1,245	419,842		419,603
	Off-balance sheet	Life insurance	Included in derivatives	Included in CRD				
Off-balance	(accounting)	operations		off-balance				
Off-balance sheet items in Annual Report								
Assets pledged as security for own liabilities	146,894	-21,755	-125,139					
Other assets pledged	6,090	0	-6,090					
Contingent liabilities	24,468	-176		24,292				
Commitments	86,970	-201	-996	85,773				
Total	264,422	-22,132	-132,225	110,065				
				Included	Included			
				in CRD off bal	in CRD (not in	Original	Credit Conversion	
				(from AR)	AR) <sup>3</sup>	Exposure	Factor %	Exposure
Off-balance items in CRD								
Credit facilities				47,600	5,557	53,157	48%	25,343
Checking accounts				25,038		25,038	23%	5,636
Loan commitments				13,112	1,674	14,786	41%	6,085
Guarantees				23,114	1	23,115	62%	14,315
Other (leasing and documentary credits)				1,201		1,201	28%	340
Total				110,065	7,232	117,297		51,719

	Credit		
	Original (		
Derivatives and Securities Financing	Exposure	Factor %	Exposure
Derivatives	42,962	100%	42,959
Securities Financing Transactions & Long Settlement Transactions	2,084	100%	2,084
Total credit risk (CRD definition)	582,185		516,365

<sup>1)</sup> Corresponding figure before allowances EUR 51,919m
2) Corresponding figure before allowances EUR 339,646m
3) Off-balance exposures included in the CRD but not included in the Annual Report (AR), such as exposures related to undrawn credit facilities which are unconditionally cancellable.

on the sum of current exposure and potential future exposure. Also, repurchase agreements and securities lending/borrowing transactions are in the balance sheet calculated based on nominal value. In the CRD calculations these exposure types are determined net of the collateral value.

# 4.3 Capital requirements for credit risk 4.3.1 Development of exposure and RWA

This section includes an overview as well as an in-depth description of the distribution of the credit risk portfolio. For more detailed information on the principles for RWA calculations under the IRB and standardised approaches see appendix 14.4.

In table 4.2, the original exposure, the exposure, the average risk weight, RWA and the capital requirements, are distributed by exposure class. The IRB exposure classes contain the portfolios for which Nordea has been approved to use IRB methods.

The standardised approach is currently used for the remaining portfolios, such as Nordea Finance Retail, international branches as well as subsidiaries in Luxembourg, Russia and Poland. Some exposure classes have been merged in the table due to low exposure.

During the year the exposure has continued to grow in all IRB exposure classes as well as in the standardised approach – in total 13% or EUR 60bn – while the capital requirements decreased with 1.9%.

In the IRB portfolio, the increase in institutions exposures is mainly driven by larger holdings in covered bonds, while growth in the corporate exposures partly derives from growth in on-balance exposures and partly from derivative exposures. Derivative exposures have increased as a result of both changes in market values and increased exposure in terms of nominal amounts. Despite increased IRB exposures, the credit risk RWA decreased with EUR 1.7bn as a result of improved risk weights in all exposure classes. The total average risk weight in the IRB corporate portfolio was at the end of 2011 53% (57%). The decrease is primarily due to migration to better rating grades and increased exposure towards better rating grades. In addition to credit quality improvements in the portfolio, an efficient management of RWA has contributed to a further decrease in RWA.

In the standardised portfolio, the exposure increased with 32% or EUR 31bn, where the main increase is towards central governments and central banks, i.e. customers within the highest credit quality step, which has a risk weight of 0%. This leads to a positive impact on the total average risk weight in the standardised approach.

Changes in FX rates have had a limited effect on the exposures during 2011.

#### 4.4 Credit risk exposure

#### 4.4.1 Exposure by exposure type

In table 4.3 the exposure is split by exposure classes and exposure types for 2011 and 2010 respectively. As of year-end 2011, 75% of the total credit risk exposure was calculated using the IRB approach. The main part of the exposure is within the IRB corporate and IRB retail portfolios.

During 2011 exposures have increased primarily due to increased exposures towards central governments and central banks as well as derivatives exposures. In addition, on-balance exposures increases although countered by decreased off-balance exposures.

Exposures towards central governments and central banks have increased towards those with the highest credit quality step and therefore without any impact on RWA. Derivative exposures increase because of changes in market values, which was mostly driven by falling interest rates and a stronger USD, as further described in chapter 4 4 5

Changes in FX rates have had limited impact on RWA during 2011.

The average exposure in 2011 is shown in table 4.4.

Table 4.2 Capital requirements for credit risk, 31 December 2011

EURm	Original exposure	Exposure	Average risk weight	RWA	Capital requirements
IRB exposure classes	•	•	<u> </u>		<u> </u>
Institution	71,394	68,992	16%	11,215	897
Corporate	209,684	164,365	53%	86,696	6,936
Retail	160,195	155,025	16%	24,367	1,949
– of which mortgage	125,001	124,020	10%	13,017	1,041
– of which other retail	31,599	27,912	36%	10,005	800
– of which SME	3,595	3,093	43%	1,345	108
Other non-credit obligation assets	1,921	1,408	100%	1,408	113
Total IRB approach	443,194	389,790	32%	123,686	9,895
Standardised exposure classes					
Central government and central banks	64,070	68,357	1%	456	36
Regional governments and local authorities	10,404	9,278	1%	80	6
Institution	5,034	4,704	24%	1,127	90
Corporate	32,771	23,546	100%	23,557	1,886
Retail	16,924	11,198	75%	8,399	672
Exposures secured by real estates	3,534	3,469	44%	1,535	123
Other <sup>1</sup>	6,253	6,023	46%	2,764	221
Total standardised approach	138,990	126,575	30%	37,918	3,034
Total	582,185	516,365	31%	161,604	12,929

<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.

## Capital requirements for credit risk, 31 December 2010

EURm	Original exposure	Exposure	Average risk weight	RWA	Capital requirements
IRB exposure classes					
Institution	57,309	53,497	17%	9,021	722
Corporate	219,768	157,542	57%	90,047	7,204
Retail	153,815	148,777	17%	24,556	1,964
– of which mortgage	117,960	117,166	11%	13,241	1,059
– of which other retail	32,321	28,528	35%	10,015	801
– of which SME	3,534	3,083	42%	1,299	104
Other non-credit obligation assets	1,778	1,722	100%	1,722	138
Total IRB approach	432,669	361,538	35%	125,346	10,028
Standardised exposure classes					
Central government and central banks	33,365	35,850	1%	351	28
Regional governments and local authorities	10,548	7,805	1%	83	7
Institution	7,925	7,699	22%	1,665	133
Corporate	36,900	25,328	99%	24,987	1,999
Retail	17,648	11,553	75%	8,665	693
Exposures secured by real estates	2,486	2,428	45%	1,096	88
Other¹	5,250	4,897	50%	2,470	198
Total standardised approach	114,122	95,559	41%	39,316	3,145
Total	546,791	457,097	36%	164,662	13,173

<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.

Table 4.3 Exposure classes split by exposure type, 31 December 2011

EURm	On-balance sheet items	Off-balance sheet items	Securities financing	Derivatives	Total
IRB exposure classes			<u> </u>		
Institution	37,869	1,675	1,159	28,289	68,992
Corporate	120,527	32,080	688	11,070	164,365
Retail	144,341	10,563	0	121	155,025
– of which mortgage	120,088	3,932	0	0	124,020
– of which other retail	21,889	5,932	0	91	27,912
– of which SME	2,364	699	0	30	3,093
Other non-credit obligation assets	1,404	4		0	1,408
Total IRB approach	304,141	44,322	1,847	39,480	389,790
Standardised exposure classes					
Central governments and central banks	65,297	1,271	225	1,564	68,357
Regional governments and local authorities	7,518	594	2	1,164	9,278
Institution	4,341	315	0	48	4,704
Corporate	18,158	4,927	0	461	23,546
Retail	10,920	278	0	0	11,198
Exposures secured by real estates	3,460	9	0	0	3,469
Other <sup>1</sup>	5,768	3	10	242	6,023
Total standardised approach	115,462	7,397	237	3,479	126,575
Total exposure	419,603	51,719	2,084	42,959	516,365

<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.

## Exposure classes split by exposure type, 31 December 2010

EURm	On-balance sheet items	Off-balance sheet items	Securities financing	Derivatives	Total
IRB exposure classes			0		
Institution	32,393	2,055	665	18,384	53,497
Corporate	113,218	36,467	419	7,437	157,542
Retail	135,896	12,823	0	58	148,777
– of which mortgage	113,543	3,623			117,166
– of which other retail	20,015	8,481		33	28,528
– of which SME	2,339	719	0	25	3,083
Other non-credit obligation assets	1,722				1,722
Total IRB approach	283,230	51,345	1,083	25,879	361,538
Standardised exposure classes					
Central governments and central banks	34,115	539	114	1,082	35,850
Regional governments and local authorities	6,792	439		574	7,805
Institution	7,358	251		90	7,699
Corporate	20,346	4,728		254	25,328
Retail	11,013	540		1	11,553
Exposures secured by real estates	2,412	16			2,428
Other <sup>1</sup>	4,575	28		293	4,897
Total standardised approach	86,609	6,541	114	2,295	95,559
Total exposure	369,839	57,887	1,197	28,174	457,097

<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.

Table 4.4 Exposure classes split by exposure type, average<sup>1</sup> exposure during 2011 Average exposure

EURm	On-balance sheet items	Off-balance sheet items	Securities financing	Derivatives	Total
IRB exposure classes					
Institution	31,756	1,740	1,770	23,079	58,345
Corporate	117,110	33,485	256	8,598	159,449
Retail	140,421	11,771	0	85	152,277
– of which mortgage	117,035	3,650			120,684
– of which other retail	20,970	7,428		56	28,454
– of which SME	2,416	693	0	29	3,138
Other non-credit obligation assets	1,414	8			1,422
Total IRB approach	290,701	47,004	2,026	31,762	371,493
Standardised exposure classes					
Central governments and central banks	41,655	831	226	1,814	44,526
Regional governments and local authorities	7,089	540	0	800	8,429
Institution	3,517	232		57	3,806
Corporate	17,896	4,864		332	23,092
Retail	10,887	411		0	11,298
Exposures secured by real estates	3,011	11			3,022
Other <sup>2</sup>	5,029	8	26	607	5,670
Total standardised approach	89,084	6,897	252	3,610	99,843
Total exposure	379,785	53,901	2,278	35,372	471,336

## Exposure classes split by exposure type, average<sup>1</sup> exposure during 2010 Average exposure

EURm	On-balance sheet items	Off-balance sheet items	Securities financing	Derivatives	Total
IRB exposure classes					
Institution	24,380	2,037	624	20,413	47,455
Corporate	113,011	33,751	199	8,123	155,084
Retail	130,144	12,336	0	67	142,547
– of which mortgage	107,523	3,263			110,785
– of which other retail	20,005	8,343		41	28,389
– of which SME	2,616	731	0	26	3,373
Other non-credit obligation assets	1,484	6			1,490
Total IRB approach	269,020	48,130	823	28,603	346,576
Standardised exposure classes					
Central governments and central banks	28,219	539	29	918	29,704
Regional governments and local authorities	6,727	378		667	7,772
Institution	4,744	196	3	143	5,086
Corporate	18,277	4,020	1	196	22,495
Retail	11,341	322	0	2	11,665
Exposures secured by real estates	1,444	11			1,455
Other <sup>2</sup>	4,106	12		148	4,266
Total standardised approach	74,858	5,479	32	2,075	82,444
Total exposure	343,878	53,609	855	30,678	429,020

<sup>1)</sup> Quarterly average
2) 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.

<sup>1)</sup> Quarterly average
2) 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.

#### 4.4.2 Exposure by geography

In table 4.5, exposure is split by geography areas, based on where the exposure is booked. The home markets for Nordea are the Nordic countries, the Baltic countries, Poland and Russia.

Nordea is geographically well diversified as no market accounts for more than 30% of the total exposure. The exposure in Sweden and Finland represents 24% and 29% of the total exposure in the Group respectively, while Denmark accounts for 21% and Norway 15%.

The growth in the IRB exposure classes institution and corporate is mainly referable to Finland, while Norway, Sweden and Denmark contribute the most to the IRB retail growth. In May 2011, Nordea was approved to use the IRB approach for the corporate and retail portfolios stemming from the acquisition of the Danish Fionia Bank A/S. This resulted in a shift in exposure of approximately EUR 2bn from the standardised approach (mainly corporate and retail other) to the corresponding IRB portfolios.

In Denmark the decrease in the IRB portfolio is attributable to lower institution exposure. In all other countries the IRB exposures have increased compared to the previous year. The growth in Finland is a result of increased derivative exposures, while the increase in Sweden mainly represents higher volumes of low risk holdings of covered bonds. The increase in the standardised approach refers to central governments and central banks with the highest credit quality.

#### 4.4.3 Exposure by industry

In table 4.6 the total exposure is split by industry 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).

The IRB corporate portfolio is well diversified between industries. The real estate management and investment sector is the largest sector which together with other financial institutions are the only sectors that account for more than 5% of the total exposure of EUR 516bn. During the year the exposure class IRB institution increased exposures to banks and decreased exposures to other financial institutions. The largest relative decrease, except from other financial institutions, are found within the industry telecommunication operators. The highest nominal increase has shown up within real estate management and investment.

Table 4.7 shows the exposure in the IRB portfolio distributed both by industry and geography. This illustrates Nordea's diversification of the corporate portfolio and cross-border business model.

Table 4.5 Exposure classes split by geography, 31 December 2011

EURm		of which Denmark	of which Finland	of which Norway		Baltic countries	Poland	Russia	Other	Total	Total 2010
IRB exposure classes											
Institution	68,992	5,890	36,704	6,684	19,714					68,992	53,497
Corporate	164,365	39,367	43,668	36,180	45,150					164,365	157,542
Retail	155,025	50,546	31,592	29,824	43,063					155,025	148,777
– of which mortgage	124,020	36,191	25,606	25,006	37,217					124,020	117,166
– of which other retail	27,912	13,611	4,995	4,452	4,854					27,912	28,528
– of which SME	3,093	744	991	366	992					3,093	3,083
Other non-credit obligation assets	1,408	371	248	159	630					1,408	1,723
Total IRB approach	389,790	96,174	112,212	72,847	108,557					389,790	1,723
Total IRB approach 2010	361,538	97,658	96,107	64,734	103,038					309,790	361,538
Total IKB approach 2010	301,330	77,030	70,107	04,734	103,030						301,330
Standardised exposure class	es										
Central governments and central banks	53,799	11,096	29,723	5,447	7,533	631	1,797	606	11,524	68,357	35,850
Regional governments and local authorities	9,075	998	2,792	246	5,039	203				9,278	7,805
Institution	303	1	273	14	15	240	924	117	3,119	4,704	7,699
Corporate	676	11	595	2	68	4,466	1,831	4,603	11,970	23,546	25,328
Retail	5,994	685	2,949	959	1,400	1,025	4,060	49	71	11,198	11,553
Exposures secured by real estates	529		529			2,023	191	325	400	3,469	2,428
Other <sup>1</sup>	4,388	1,319	774	220	2,075	446	107	849	233	6,023	4,897
Total standardised approach		14,110	37,635	6,888	16,131	9,035	8,911	6,549	27,317	126,575	4,077
Total standardised approach		17,110	37,033	0,000	10,131	7,000	0,711	0,549	21,011	120,373	
2010	53,996	7,718	22,063	3,579	20,637	8,299	6,702	5,273	21,289		95,559
Total exposure	464,554	110,284	149,847	79,735	124,688	9,035	8,911	6,549	27,317	516,365	
Total exposure 2010	415,534	105,376	118,170	68,313	123,675	8,299	6,702	5,273	21,289		457,097

<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.

Table 4.6 Exposure split by industry sector, 31 December 2011

	Inter	nal rating b	ased appro	ach	Standa	ardised approa	ach		
EURm	Institution	Corporate	Retail	Other non-credit obligation assets	Central govern- ments and central banks	Regional govern- ment and local authorities	Other <sup>1</sup>	Total	Total 2010
Retail mortgage			124,020				3,469	127,489	119,593
Other retail			27,912				11,198	39,111	40,081
Central and local governments					26,864	9,278		36,141	25,122
Banks	50,158				41,494		2,759	94,411	43,725
Industry sector									
<ul> <li>Construction and engineering</li> </ul>		4,889	346				658	5,893	4,830
<ul><li>Consumer durables (cars, appliances etc)</li></ul>		4,824	55				772	5,651	6,294
<ul><li>Consumer staples (food, agriculture etc)</li></ul>		11,569	179				873	12,621	12,629
– Energy (oil, gas etc)		3,758	1				674	4,433	4,186
- Health care and pharmaceuticals		2,043	107				485	2,635	2,607
– Industrial capital goods		4,939	23				878	5,840	5,584
– Industrial commercial services		17,824	516				1,296	19,636	19,353
– IT software, hardware and services		1,290	67				241	1,598	2,169
– Media and leisure		2,521	250				203	2,973	3,136
<ul> <li>Metals and mining materials</li> </ul>		1,241	7				42	1,289	1,124
– Paper and forest materials		3,232	25				271	3,529	4,085
<ul> <li>Real estate management and investment</li> </ul>		43,124	459				1,452	45,036	41,611
– Retail trade		11,898	568				1,152	13,618	13,030
– Shipping and offshore		8,784	6				4,650	13,441	13,105
– Telecommunication equipment		585	1				36	622	613
- Telecommunication operators		1,972	3				105	2,080	2,836
- Transportation		3,620	147				945	4,711	4,527
<ul><li>Utilities (distribution and production)</li></ul>		7,795	15				875	8,685	7,394
- Other financial institutions	18,834	14,770	72				2,127	35,804	47,140
<ul> <li>Other materials (chemical, building materials etc)</li> </ul>	,	6,633	88				892	7,613	8,184
- Other		7,053	158	1,408			12,887	21,506	24,141
Total exposure	68,992	164,365	155,025	1,408	68,357	9,278	48,940	516,365	
Total exposure 2010	53,497	157,542	148,777	1,722	35,850	7,805	51,904	, -	457,097

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

Table 4.7 IRB corporate exposure split by industry and geography, 31 December 2011

EURm	Denmark	Finland	Norway	Sweden	Total	Total 2010
Construction and engineering	533	1,523	2,027	805	4,889	4,197
Consumer durables (cars, appliances etc)	549	1,253	1,101	1,921	4,824	5,269
Consumer staples (food, agriculture etc)	7,101	1,821	1,917	730	11,569	11,480
Energy (oil, gas etc)	8	1,195	1,319	1,236	3,758	3,467
Health care and pharmaceuticals	349	529	195	971	2,043	1,811
Industrial capital goods	729	2,893	129	1,189	4,939	4,728
Industrial commercial services	3,615	3,535	6,671	4,002	17,824	17,181
IT software, hardware and services	292	461	110	426	1,290	1,672
Media and leisure	558	670	602	690	2,521	2,579
Metals and mining materials	35	543	221	442	1,241	1,083
Paper and forest materials	260	1,560	93	1,319	3,232	3,863
Real estate management and investment	6,804	9,116	10,526	16,678	43,124	40,108
Retail trade	4,511	3,138	1,442	2,807	11,898	11,338
Shipping and offshore	908	1,232	5,031	1,614	8,784	8,472
Telecommunication equipment	5	575	0	4	585	603
Telecommunication operators	248	790	81	853	1,972	2,789
Transportation	705	996	708	1,211	3,620	3,263
Utilities (distribution and production)	1,840	3,103	1,624	1,227	7,795	6,901
Other financial institutions	4,361	4,471	1,358	4,581	14,770	14,136
Other materials (chemical, building materials etc)	817	2,856	580	2,380	6,633	7,333
Other	5,139	1,409	445	60	7,053	5,267
Total exposure	39,367	43,668	36,180	45,150	164,365	
Total exposure 2010	38,952	37,758	34,631	46,201		157,542

#### 4.4.3.1 Specification of exposure against central government and central banks

Nordea applies the standardised approach for exposure to central governments and central banks. In this approach, the external rating from an eligible rating agency is converted to a credit quality step (the mapping is defined by the financial supervisory authorities). Each credit quality step corresponds to a fixed risk weight. Nordea uses

Standard & Poor's as eligible rating agency. In table 4.8, the central government and central bank exposure distributed by credit quality steps is presented.

Out of the total exposure of EUR 68bn, 99% of the exposure was towards central governments and central banks within the highest credit quality step, resulting in no RWA. The increase in exposure is related to placement of liquidity as well as increased holdings in high rated sovereigns in the Norwegian and Finnish liquidity buffers.

Table 4.8 Exposure to central governments and central banks

EURm Standard & Poor's rating	Credit quality step	Risk weight	31 December 2011 Exposure	31 December 2010 Exposure
AAA to AA-	1	0%	67,557	35,302
A+ to A-	2	20%	247	126
BBB+ to BBB-	3	50%	235	193
BB+ and below, or without rating	4 to 6 or blank	100-150%	318	230
Total			68,357	35,850

#### 4.4.4 Specification of off-balance exposure

The distribution of the off-balance exposure is specified in table 4.9. The off-balance exposure is presented as original exposure, i.e before the application of CCF.

The total off-balance volume decreased with 20% in 2011. The decrease is driven by changes in the corporate and institutions portfolios in Nordea Bank Finland, where the commercial paper framework was removed from the original exposure, in order to be aligned with market practice. However, RWA was unaffected by the removal due to a CCF factor of 0% for these exposures. Furthermore, the off-balance exposures in the retail portfolio in Nordea Bank Finland decreased as a result of lower exposures in the sub exposure class other retail. The decrease is partly explained by RWA optimisation activities, where a review of asset class and product segmentation led to improved data quality.

The overall capital requirements split by exposure type are shown in table 4.10, where the exposure for derivatives stems from counterparty credit risk. The information in the table includes exposures from both the IRB and standardised exposure classes.

Table 4.10 shows that off-balance sheet items have a smaller effect on RWA than on-balance sheet items. At the end of 2011, only 23% of the total credit risk RWA stems from off-balance sheet items and derivatives, which is at the same level as in 2010. RWA for off-balance sheet items was 15% of the total RWA, while RWA for on-balance sheet items, including securities financing, was 77% of total RWA.

The exposure class IRB corporate has the largest portion of off-balance exposure, which constitutes 61% of the total original exposure in this exposure class with a large part referring to revocable credit facilities.

The reason that an off-balance exposure amount does not contain the same risk as an on-balance exposure amount is that the off-balance amount is transformed to an on-balance equivalent amount through the application of a CCF between 0% and 100%. The main categories within off-balance sheet items are guarantees, credit commitments and unutilised portion of approved credit facilities. Credit commitments and unutilised amounts are the part of the external commitments that has not been utilised. The CCF is set depending on the approach, product type and whether the utilised amounts are unconditionally cancellable or not.

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

Table 4.9 Original exposure off-balance divided per exposure class

EURm	31 December 2011	31 December 2010
IRB exposure classes		
Institution	3,658	5,267
Corporate	72,125	93,798
Retail	14,702	16,885
– of which mortgage	4,913	4,417
– of which other retail	8,651	11,351
– of which SME	1,138	1,117
Other non-credit obligation assets	11	0
Total IRB approach	90,496	115,950
Standardised exposure classes		
Central government and central banks	1,265	1,564
Regional governments and local authorities	4,718	6,233
Institution	1,028	682
Corporate	13,889	15,892
Retail	5,804	6,437
Exposures secured by real estates	74	71
Other	23	149
Total standardised approach	26,801	31,027
Total	117,297	146,978

An average CCF can vary between periods without having an effect on RWA. The increased CCF for IRB institution and corporate, as seen in table 4.11, are mainly driven by the removal of commercial paper program in Finland that had a CCF of 0%. The result is a higher average CCF, while RWA remains unchanged. In IRB retail the unsecured credit promises has decreased in sub exposure class other retail, which was the main contributor to the lower average CCF and also to decreased RWA.

Table 4.10 Exposure, RWA and capital requirements per exposure type, 31 December 2011

EURm	On-balance sheet items <sup>1</sup>	Off-balance sheet items	Derivatives	Total	Total 2010
Original exposure	421,926	117,297	42,962	582,185	546,791
EAD	421,687	51,719	42,959	516,365	457,097
RWA	125,126	24,667	11,811	161,604	164,662
Capital requirements	10,011	1,973	945	12,929	13,173
Average risk weight	30%	48%	27%	31%	36%

<sup>1)</sup> On-balance sheet items include securities financing

Table 4.11 Credit conversion factor and off-balance exposure split by IRB exposure class, 31 December 2011

EURm	Exposure after substitution effects <sup>1</sup>	Exposure	CCF	CCF 2010
Institution	4,010	1,675	42%	37%
Corporate	70,612	32,080	45%	39%
Retail	14,667	10,563	72%	76%
– of which mortgage	4,913	3,932	80%	82%
– of which other retail	8,620	5,932	69%	75%
– of which SME	1,134	699	62%	65%

<sup>1)</sup> Exposure after substitution effects is the exposure after taking credit risk mitigation techniques, such as guarantees and credit derivatives, into account.

#### 4.4.5 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 individually defined and agreed on 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. 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.

4.4.5.1 Pillar I method for counterparty credit risk
The marked-to-market method, also called the current exposure method (CEM), is used to calculate the exposure for counterparty credit risk in accordance with the credit risk framework in the CRD, i.e. the sum of current expo-

sure (replacement cost) and potential future exposure. The potential future exposure is an estimate reflecting possible changes in the future market value of the individual contract during the remaining maturity, and is measured as the notional principal amount multiplied by the add-on factor. The size of the add-on factor depends on the contract's remaining maturity and the type of 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 4.12, the exposure as well as the RWA split by the exposure classes are shown. The increase in exposure during 2011 is a combination of both increased market values and potential future exposures. The market values have increased as a result of changes in interest rates and exchange rates, which affect interest rate derivatives and FX derivatives. Long EUR swap rates have decreased which on a total level causes market values to increase as a drop in long EUR rates have a negative correlation with Nordea's derivative market values. A strengthening of the USD against the most significant currencies in Nordea (SEK, DKK, NOK and EUR) also causes market values to increase which was noted during 2011.

Potential future exposure increases as a result of increased notional amounts for derivatives. As the potential future exposure also changes with respect to maturity of the underlying derivatives, this component also has an effect on the total exposure.

Table 4.12 Counterparty credit risk split by exposure class<sup>1</sup>

	31 December 201	1	31 December 2010	)
EURm	Exposure	RWA	Exposure	RWA
IRB exposure classes				
Institution	28,289	6,029	18,384	4,062
Corporate	11,070	5,174	7,437	3,848
Retail	121	47	58	29
Total IRB approach	39,480	11,250	25,879	7,939
Standardised exposure classes				
Central government and central banks	1,564	69	1,082	68
Other	1,915	492	1,212	309
Total standardised approach	3,479	561	2,295	376
Total exposure	42,959	11,811	28,174	8,315

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

4.4.5.2 Counterparty credit risk for internal credit limit purposes Counterparty credit risk for internal credit limit purposes for the main part of Nordea's OTC derivatives exposure is calculated using an internal simulation model. This is a change from 2010 when an internal add-on based method was used.

In table 4.13, the counterparty credit risk is presented for different counterparty types.

As of December 2011, the current exposure net (after close-out netting and collateral reduction) was EUR 11bn and the pre-settlement risk ("worst-case-scenario") was EUR 45bn, comprised of both simulated and non-simulated trades. The rise in the current exposure net by 56% since December 2010 is mainly due to falling interest rates and a stronger USD throughout 2011. The noticeable change in the pre-settlement risk is due to several underlying changes;

- Business volumes have increased (+22%) measured as notional volumes.
- Structural portfolio composition, have meant increased risk due to lower interest rates and stronger USD.
- More advanced risk calculation has impacted the risk on less diversified portfolios upwards and on more diversified portfolios downwards.
- The risk measures have increased due to a more conservative (higher) confidence level.

For internal capital purposes (economic capital framework), the main part of the counterparty credit risk exposure is calculated using a measure referred to as expected positive exposure.

On traded OTC contracts, Nordea performs fair value adjustments, which are adjustments to the counterparty credit risk exposure done by including an estimate of the cost of hedging the specific counterparty credit risk. This cost of hedging is either based directly on market prices or on a theoretical calculation based on the credit rating of the counterparty.

### 4.4.5.3 Regulatory development

Within the proposed Basel III / CRD IV, the RWA calculation framework for counterparty credit risk has been expanded. Among a number of developments, the main addition to regulation is the addition of capital held for potential counterparty migration termed Credit Value Adjustment (CVA) risk. During 2012, Nordea will further update the counterparty credit risk framework to be compliant with Basel III / CRD IV.

4.4.5.4 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,

Table 4.13 Counterparty credit risk exposures (internal)

	31 Decemb	ber, 2011	31 December, 2010		
EURm	Current exposure net Pre-settlement risk		Current exposure net	Pre-settlement risk	
Public entities	1,049	4,183	481	2,249	
Institution	2,293	20,607	1,990	19,236	
Corporate	7,585	20,120	4,518	12,110	
Total	10,927	44,910	6,990	33,595	

Table 4.14 Mitigation of counterparty credit risk exposure due to closeout netting and collateral agreements

		31 Decemb	er 2011		31 December 2010			
	Current	Reduction from closeout	Reduction	Current	Current	Reduction from closeout	Reduction	Current
EURm	Exposure (gross)	netting agreements	from held collateral	Exposure (net)	Exposure (gross)	netting agreements	from held collateral	Exposure (net)
Total	168,971	150,676	7,368	10,927	98,649	87,369	4,291	6,990

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 is largely cash (EUR, USD, DKK, SEK and NOK), as well as government bonds and to a lesser extent mortgage bonds are accepted.

In table 4.14, information of how the counterparty credit risk exposure is reduced with risk mitigation techniques is

As of December 2011, Nordea had 1,086 (+19%) financial collateral agreements. The effects of closeout netting and collateral agreements are considerable, as 94% (93%) 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, e.g. rating triggers. For a few agreements the minimum exposure level for further posting of collateral will be lowered in case 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 upon a condition in some of the long-term derivative contracts, which gives the option to terminate a contract at a specific time or upon the occurrence of specified credit related events.

The 10 largest counterparties, measured on current exposure net, account for around 11% (17%) of the total current exposure net, and consists of a mix of financial institutions, public and corporate counterparties, with high credit quality.

Nordea began clearing repo trades through central clearing during 2011. In 2012, additional focus will be set to reducing Nordea's bilateral OTC derivative exposures by increased usage of central clearing for liquid and standardised products. The usage of central clearing may increase the transaction costs of derivative deals, but is expected to reduce Nordea's exposure amounts and counterparty credit risk.

#### 4.4.5.5 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 con-

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.

#### 4.4.6 Other items

In the exposure class other items, Nordea's equity holdings in the banking book are included. Investments in companies in which Nordea holds over 10% of the capital are deducted from the capital base (see table 2.1) and are hence not included in the other items. For more information about equity holdings in the banking book see section

#### 4.5 Rating and scoring

In this section the probability of default (PD) is described with respect to the development of rating/risk grade distribution and migration.

#### 4.5.1 Rating and scoring definition

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

- The credit approval process
- Calculation of risk weighted amounts (RWA)

- Calculation of economic capital (EC) 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 reflects only 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 (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– for non-defaulted customers and 3 grades from 0+ to 0- for defaulted customers.

In table 4.15, the mapping from the internal rating scale to the S&P's rating scale, using condensed scales, is shown

The mapping of the internal ratings to 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.

Table 4.15 Indicative mapping between internal rating and Standard & Poor's

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

Ratings are assigned in conjunction with credit proposals and the annual review of the customers, and are 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 on a differentiation of rating models to better reflect the risk involved for customers with different characteristics. Rating models have therefore been developed for several 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 largely 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. The ambition is always to improve the scorecards, and thereby the risk differentiation.

Nordea has established an internal validation process in accordance with the CRD requirements with the aim to ensure and improve 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.

The Risk Committee has established the sub-committee Credit Risk Model Validation Committee (CRMVC). The charter for the CRMVC was approved in September 2011. The CRMVC is responsible for the approval of the annual rating and scoring model validations, as well as approval of proposals concerning the credit risk model validation framework.

#### 4.5.2 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 between 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 the 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.

Figure 4.2 Exposure distributed by rating grade, IRB institution

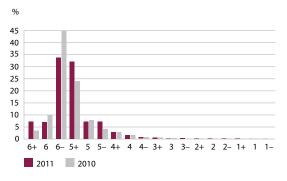
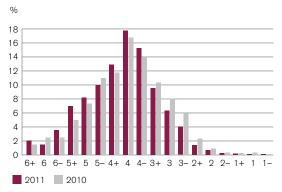


Figure 4.3 Exposure distributed by rating grade, IRB corporate



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.

#### 4.5.3 Rating and scoring risk grade distribution

In this section the rating and scoring risk grade distributions for the IRB exposure classes are presented.

4.5.3.1 Rating distribution of the IRB institution portfolio In December 2011, approximately 99% (99%) of the institution exposure is found in the nine highest rating grades, 4 and higher.

As shown in table 4.16 the average PD in the IRB institution portfolio has improved. Rating grades 6 and 6—decrease while 6+, 5+ and 5 increase Increased derivative exposures are mainly distributed to rating grade 5+ and 6—. In addition to improved average PD the average LGD decreases which explains the lower average risk weight. More information about the rating migration is shown in section 4.5.4.

4.5.3.2 Rating distribution of the IRB corporate portfolio In December 2011, approximately 76% (72%) of the IRB corporate exposure was found in the nine highest rating grades, 4– and above.

During 2011 many industries have showed continued recovering from the financial challenges in previous years. This can be seen in the corporate rating distribution where the average risk weight has decreased as a result of a lower average PD compared with previous year. Average PD decreases from 0.76% to 0.59% during the year as result of migration. The exposure in rating grades below 4– has decreased during 2011, while exposures increased in the ratings grades 4– and above. Furthermore, more collaterals in the corporate portfolio has resulted in lower average LGD which in turn also explains the the improved average risk weight. The average risk weight decreased from 57% to 53% during 2011.

As shown in figure 4.4, almost all industries contribute to the higher average rating and therefore also the lower PD. The industries with highest increased average rating are industrial capital goods, transportation and metals

Table 4.16 Exposure towards IRB institution, distributed by rating grade<sup>1</sup>

	31	December 2011 Institution		31	December 2010 Institution	
EURm Rating	PD scale	Exposure	Average risk weight	PD scale	Exposure	Average risk weight
6+	0.03%	4,930	9%	0.03%	1,821	13%
6	0.03%	4,734	7%	0.03%	5,237	9%
6-	0.05%	23,201	10%	0.05%	23,818	9%
5+	0.07%	22,024	13%	0.07%	12,770	16%
5	0.10%	4,939	27%	0.10%	4,119	21%
5-	0.16%	5,004	28%	0.16%	2,117	34%
4+	0.24%	1,941	39%	0.24%	1,538	46%
4	0.35%	1,094	59%	0.35%	808	61%
4-	0.53%	357	70%	0.53%	335	71%
3+	0.81%	359	75%	0.81%	279	90%
3	1.19%	73	101%	1.19%	115	102%
3–	2.01%	94	122%	2.01%	71	122%
2+	3.63%	7	144%	3.63%	28	144%
2	6.16%	11	171%	6.16%	36	168%
2–	9.86%	27	201%	9.86%	49	204%
1+	14.79%	10	219%	14.79%	20	234%
1	20.71%	2	254%	20.71%	7	254%
1–	26.93%	1	263%	26.93%	0	N/A
	0.09%2	68,808	16%	0.11%2	53,167	17%

<sup>1)</sup> Exposure includes rated customers. 2) Exposure weighted PD.

Table 4.17 Exposure towards IRB corporate, distributed by rating grade<sup>1</sup>

·	31	31 December 2011 Corporate			31 December 2010 Corporate		
<b>EURm</b> Rating	PD scale	Exposure	Average risk weight	PD scale	Exposure	Average risk weight	
6+	0.03%	3,116	14%	0.03%	2,095	13%	
6	0.03%	2,293	13%	0.03%	3,688	15%	
6-	0.05%	5,462	18%	0.05%	3,705	18%	
5+	0.07%	10,910	23%	0.07%	7,421	23%	
5	0.10%	12,848	27%	0.10%	11,069	28%	
5-	0.16%	15,685	37%	0.16%	16,563	37%	
4+	0.24%	20,294	45%	0.24%	17,764	45%	
4	0.35%	28,033	55%	0.35%	25,321	55%	
4-	0.53%	24,112	64%	0.53%	21,168	66%	
3+	0.81%	14,981	77%	0.81%	15,639	77%	
3	1.19%	9,922	85%	1.18%	12,087	90%	
3–	2.01%	6,295	97%	2.01%	8,886	98%	
2+	3.63%	2,132	112%	3.63%	3,499	120%	
2	6.16%	958	132%	6.16%	1,220	127%	
2–	9.86%	354	148%	9.86%	457	148%	
1+	14.79%	193	162%	14.79%	288	175%	
1	20.71%	110	177%	20.71%	400	215%	
1–	26.93%	87	201%	26.93%	121	181%	
	0.59%2	157,785	53%	0.76%2	151,393	57%	

<sup>1)</sup> Exposure includes rated customers. 2) Exposure weighted PD.

and mining materials, while telecommunication equipment together with IT software, hardware and services have lower average rating compared to previous year.

# 4.5.3.3 Scoring risk grade distribution of the IRB retail portfolio

At the end of 2011, approximately 89% (87%) of the retail exposure was found in the nine highest risk grades, C—and above. For retail mortgage and retail other the corresponding share is 91% and 82% and for SME 56%.

The average PD decreased from 0.90% to 0.84% as well as the LGD decreases which results in lower average risk weights compared with 2010. In the retail portfolio the improved credit quality is a result of the yearly calibration of the scorecards. An improved set up for differentiating the calibration of the scorecards and the reason codes has been implemented in Nordea Bank Denmark.

Figure 4.4 Development of average rating per industry for the IRB corporate portfolio

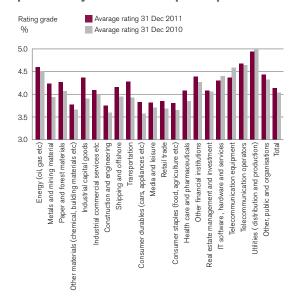


Table 4.18 Exposure towards IRB retail, distributed by risk grade<sup>1</sup>

31 December 2011 31 December 2010 Retail Retail **EURm** Average risk Average risk weight Risk grade PD scale weight PD scale Exposure Exposure A+ 0.08% 50,602 3% 0.08% 41,859 3% 5% 5% Α 0.11%17,822 0.11% 16,389 A-0.16% 13,638 6% 0.16% 12,818 6% 8% 0.22% 9% B+0.22% 11,801 13,132 В 0.31% 10,508 11% 0.31% 12,275 11% В-0.43% 12,265 14% 0.43% 9,316 14% 17% 0.60% 7,789 17% C+ 0.60%7,431 C 0.84% 6,497 22% 0.84% 8,550 22% C-1.17% 4,974 27% 1.17% 5,160 28% 4,352 D+1.64% 3,707 31% 1.64% 32% D 2.30% 3,065 36% 2.30% 3,465 38% D-3.20% 2,523 44% 3.20% 3,411 42% E+ 4.47% 2,439 50% 4.47% 2,478 50% Е 3,051 6.30% 2,952 56% 6.30% 56% E-8.79% 560 63% 8.79% 566 62% F+ 12.28% 582 65% 12.28% 758 66% 237 F 17.19% 75% 17.19% 240 76% 925 88% F-24.04% 1,108 86% 24.04%  $0.84\%^2$ 152,810 13% 0.90%2 17% 146,435

<sup>1)</sup> Exposure includes scored customers.

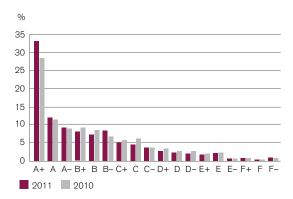
<sup>2)</sup> Exposure weighted PD.

Table 4.19 Exposure towards IRB retail sub-exposure classes, distributed by risk grade<sup>1</sup>

		31 Decem Ret				31 Decen Ret		
EURm Risk grade	PD scale	Retail mortgage	Other Retail	SME	PD scale	Retail mortgage	Other Retail	SME
A+	0.08%	45,711	4,565	326	0.08%	37,470	4,101	288
A	0.11%	15,331	2,456	35	0.11%	14,079	2,274	36
A-	0.16%	11,203	2,406	29	0.16%	10,798	1,986	34
B+	0.22%	9,279	2,481	41	0.22%	10,733	2,359	40
В	0.31%	7,932	2,518	58	0.31%	9,417	2,772	86
В-	0.43%	9,216	2,971	78	0.43%	6,889	2,334	93
C+	0.60%	5,486	1,776	169	0.60%	5,827	1,864	98
C	0.84%	4,527	1,713	257	0.84%	6,063	2,346	141
C-	1.17%	3,113	1,259	602	1.17%	3,180	1,396	583
D+	1.64%	2,453	901	353	1.64%	2,755	1,275	323
D	2.30%	2,048	787	230	2.30%	2,095	1,061	309
D-	3.20%	1,645	668	210	3.20%	2,246	830	335
E+	4.47%	1,670	602	167	4.47%	1,558	743	177
E	6.30%	1,770	1,159	122	6.30%	1,651	1,142	159
E-	8.79%	323	140	97	8.79%	318	167	82
F+	12.28%	355	194	33	12.28%	308	412	37
F	17.19%	156	64	17	17.19%	128	76	36
<u>F</u> –	24.04%	726	347	35	24.04%	563	328	34
		122,944	27,007	2,859		116,077	27,466	2,892

<sup>1)</sup> Exposure includes scored customers.

Figure 4.5 Exposure distributed by risk grade, IRB retail



# 4.5.4 Rating and scoring migration

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

- Changes in rating/risk grade for existing customers (pure migration).
- Different rating distribution of new customers and customers leaving Nordea, compared to the rating distribution of existing customers during the comparison period.
- Increased or decreased exposure per rating/risk grade to existing customers.

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 macroeconomic development and timely payments among other things.

Figures 4.6 to 4.8 show the rating/scoring migration for institution, corporate and retail customers during 2011, comparing the development from the beginning of the year with year-end. The migration is based on existing customers at year-end 2010 and 2011 and is shown both in terms of number of customers and exposure. The RWA decrease due to rating/scoring migration reflects the impact of procyclicality in the pillar I capital requirement calculations of the IRB approaches.

Out of the total exposure in the institution portfolio approximately 20% has migrated up or down during 2011. This corresponds to approximately 32% of the number of counterparts. The migration downwards is shown in the rating grades 6- and 5+ related to a few counterparties have been downgraded during the year. Compared to 2010 the migration has been more stable during this year.

In the corporate portfolio approximately 51% has migrated either up or down in 2011 with respect to exposure and 53% in terms of number of customers. 32% of the customers existing in both end 2010 and end 2011 have been upgraded during the year. The migration in

Figure 4.6a Institution Re-rated Exposure at Default (%)

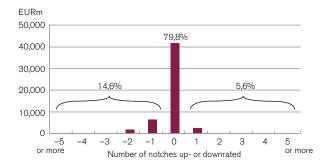


Figure 4.7a Corporate Re-rated Exposure at Default (%)

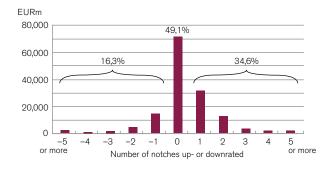


Figure 4.8a Retail Re-scored Exposure at Default (%)

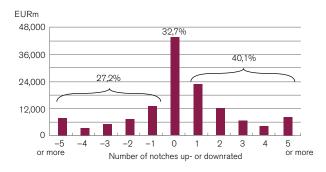


Figure 4.6b Institution Re-rated number of customers (%)

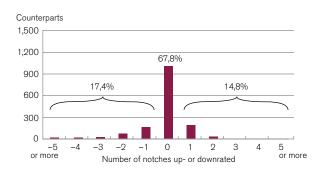


Figure 4.7b Corporate Re-rated number of customers (%)

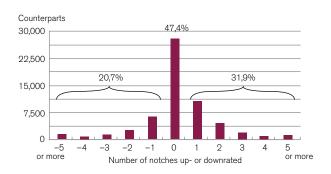
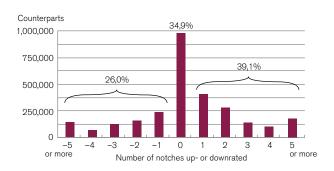


Figure 4.8b Retail Re-scored number of customers (%)



the corporate portfolio has reduced corporate RWA more in 2011 than during 2010.

Of the total exposure in the retail portfolio approximately 67% has migrated up or down during 2011 which corresponds to approximately 65% of the customers.

On an overall level the migration has had a positive impact on credit risk RWA during 2011 as it has reduced RWA with approximately 3.5%. This calculation does not take into account the changes in exposure distribution, rating distribution of lost and new customers or customers who have defaulted during the year.

#### 4.6 Collateral and maturity

In this section the collaterals and maturity have been broken down and specified.

#### 4.6.1 Loss Given Default

In table 4.20, the exposure per exposure class secured by eligible collateral, guarantees and credit derivatives is shown. In 2011, approximately 37% (38%) of total exposure was secured by eligible collateral, while the corresponding figure for the IRB portfolio is 49% (47%). The relative share of collateralised exposure remains stable.

In the FIRB approach the LGD estimates are predefined in the legislation. For instance, exposure fully secured by real estate collateral is assigned an LGD of 30-35% depending on national regulations. Exposure fully secured by other physical collateral is assigned an LGD of 40% and the LGD value for unsecured senior exposure is 45%. The LGD values for the retail portfolio are based on an internal model, and divided in pools of collateral that are based on historical loss data.

Average LGD in all IRB exposure classes remains stable although with small decreases in all exposures classes during 2011. The average LGD in institutions remains stable at 26% as does average LGD in both corporate and retail which remain at 41% and 18% respectively.

Average LGD in the retail portfolio has improved during the year as a result of growth in residential real estate exposure. The relative share of the collateral type real estate, compared to all collaterals in the IRB portfolio, has decreased though due to an increase in cash as collateral.

### 4.6.1.1 Guarantees and credit derivatives

The guarantees used as credit risk mitigation are to a large extent 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 IRB approach for credit risk. All central governments, regional governments and institutions are eligible as well as some multinational development banks and international organisations. Guarantees issued by corporate entities can only be taken into account if their rating corresponds to A- (S&P's rating scale) or better.

The guarantors, central governments and municipalities comprise approximately 88% of the total guaranteed exposure. The exposure that is guaranteed by these guarantors receives an average risk weight of 0%.

5% of the guarantors are IRB institutions, of which 100% have a rating of 5 or higher. IRB corporate accounts for 4% of the guarantors, where 100% have a guarantor with a rating of 5 or higher. The remaining 3% of the guarantors are within the standardised institution portfolio.

Credit derivatives are only used as credit risk protection to a very limited extent since the credit portfolio is considered to be well diversified.

#### 4.6.1.2 Collateral distribution

Table 4.21 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 relative terms. Financial collateral, with an LGD of 0%, has the highest relative increase but also the other types of collateral increase during the year except real estate which somewhat decreases in relative terms. Real estate is commonly used as collateral for credit risk mitigation purposes. There is no certain concentration of real estate collateral to any region within the Nordic and Baltic countries. Other physical collateral consist mainly of ships.

#### 4.6.1.3 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 Nordea.
- 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.

A common way to analyse the value of the collateral is to measure the loan to value (LTV) ratio, i.e. the exposure divided by market value. In table 4.22, the retail mortgage exposures are distributed by LTV range up to the top LTV bucket based on the LTV ratio. In 2011, the retail mortgage exposure increased in the LTV buckets representing loan-to-value below 50%.

Table 4.20 Exposure secured by collaterals, guarantees and credit derivatives, 31 December 2011

			of which secured by guarantees	of which	Average	Average
EURm	Original exposure	Exposure	and credit derivatives	secured by collateral	weighted LGD	weighted LGD 2010
IRB exposure classes						
Institution	71,394	68,992	532	6,387	25.9%	26.5%
Corporate	209,684	164,365	7,499	58,434	40.9%	41.2%
Retail	160,195	155,025	2,985	124,970	17.7%	18.2%
– of which mortgage	125,001	124,020		122,334	13.1%	13.6%
– of which other retail	31,599	27,912	2,629	1,010	37.7%	36.8%
– of which SME	3,595	3,093	356	1,626	23.9%	23.8%
Other non-credit obligation assets	1,921	1,408	1	4	n.a.	n.a.
Total IRB approach	443,194	389,790	11,017	189,795		
Total IRB approach 2010	432,669	361,538	9,468	171,646		
Standardised exposure classes						
Central government and central banks	64,070	68,357	290	2		
Regional governments and local authorities	10,404	9,278	2,0	_		
Institution	5,034	4,704		0		
Corporate	32,771	23,546	313	40		
Retail	16,924	11,198	77			
Exposures secured by real estates	3,534	3,469		3,469		
Other <sup>1</sup>	6,253	6,023	2	0		
Total standardised approach	138,990	126,575	682	3,511		
Total standardised approach 2010	114,122	95,558	1,105	2,483		

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

Table 4.21 Collateral distribution

Total	100.0%	100.0%
Financial Collateral	4.1%	2.5%
Commercial Real Estate	17.3%	16.6%
Residential Real Estate	71.5%	74.3%
Receivables	1.2%	1.1%
Other Physical Collateral	5.9%	5.4%
	31 Dec 2011	31 Dec 2010

Table 4.22 Loan-to-value distribution, Retail mortgage exposure, on-balance

	31 Dec 2011		31 Dec 2010	
EURbn	Exposure	%	Exposure	%
<50%	90.3	75.2	85.7	75.5
50-70%	21.6	18.0	20.0	17.6
70-80%	6.0	5.0	5.3	4.6
80-90%	1.6	1.3	1.8	1.6
>90%	0.6	0.5	0.8	0.7
Total	120.1	100.0	113.5	100.0

The exposure is continously distributed by LTV buckets. For example, an exposure of 540 with a LTV of 54% is distributed 500 to the <50% bucket and 40 to the 50–70% bucket.

Table 4.23 IRB exposures split by maturity, 31 December 2011

EURm	Institution	Corporate	Retail
< 1 year	43,420	43,817	57,815
1–3 years	15,003	27,698	3,692
3–5 years	4,458	32,734	5,154
> 5 years	6,111	60,116	88,364
Total exposure	68,992	164,365	155,025

#### IRB exposure split by maturity, 31 December 2010

EURm	Institution	Corporate	Retail
< 1 year	37,289	42,343	63,191
1–3 years	11,311	30,513	2,402
3–5 years	779	27,831	5,867
> 5 years	4,117	56,855	77,318
Total exposure	53,497	157,542	148,777

Table 4.24 Obligor weighted PD vs. ADF, 2011

	Average PD	Average ADF
Retail	1.26%	1.09%
Corporate & Institution	1.37%	1.20%

Table 4.25 Estimated vs realised LGD, 2011

	LC	LGD		
	Estimated <sup>1</sup> %	Realised average %		
Retail	17.7%	9.4%		

<sup>1)</sup> Defaulted customers are not included

#### 4.6.2 Maturity

Exposure in the IRB exposure classes is divided by maturity, defined as remaining maturity, and is presented in table 4.23.

The distribution of exposures in the corporate and institutions portfolio have been stable with respect to maturity.

# 4.7 Estimation and validation of credit risk parameters

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

The PD, LGD and CCF parameters are validated 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 frequency (ADF).

The PD estimation, and hence the validation, takes into account that the rating models used for corporate and institution customers have 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.

Table 4.24 shows, from the validation, the average PD based on Nordea's current PD scale and weighted with the number of customers for each exposure class. The average PD is based on the period 2003–2009 for the corporate and institution portfolios and 2005–2009 for the retail portfolio. Table 4.24 also shows the average ADF, calculated as the customer-weighted default frequency for the period 2004–2010 for the corporate and institution portfolios and 2006–2010 for the retail portfolio.

Table 4.25 shows estimated and realised LGD for IRB exposure. The estimated LGD is higher than the realised LGD mainly due to the fact that the estimated LGD includes a downturn add-on.

In table 4.26, 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 the internal LGD and CCF estimates for corporate and institution exposure have been used. The figures represent the full-year outcome. The EL ratio used for calculating risk-adjusted profit was on average 22 basis points, excluding the sovereign and institution exposure classes. This value is calculated as the average value of all four quarters of 2011.

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 the average EL disregarding the fact that EL includes extra margins for statistical uncertainty and, in the case of LGD, a downturn add-on.

# 4.8 Loan portfolio, impaired loans and loan losses 4.8.1 Loan portfolio

Nordea's total loans have increased by 7% to EUR 337bn during 2011 (EUR 314bn). The increase is attributable to an increase of 7% both in the household portfolio and in the corporate portfolio. The portion of total lending to corporate customers was unchanged at 54% and also unchanged to household customers at 45%. The portfolio is geographically well diversified with no market accounting for more than 30% of total lending. Nordea has no significant direct exposure to PIIGS. Lending in the Baltic countries constitutes 2.5% and the shipping industry 3.6% of the Group's total lending. Lending to companies owned by private equity funds constitutes less than 3% of lending, of which 99% are senior loans. The overall credit quality is solid with strongly rated customers and continued positive rating migration. The total effect on RWA from rating and scoring migration in the portfolio was a decrease by approximately 3.5.% during 2011.

Nordic countries and Poland, Baltics and Russia accounts for 91% (93%) of total loans distributed by

Table 4.26 EL vs. gross loss and net loss

	Retail House	Retail Household <sup>1</sup>				
EURm	Mortgage	Other	Corporate <sup>1</sup>	Institution	Government	Total
2011						
EL	-123	-212	-407	-26	-2	-771
Gross loss	-103	-314	-1,061	0	0	-1,478
Net loss	-61	-201	-472	0	0	-735
2010						
EL	-111	-223	-478	-22	-5	-839
Gross loss	-86	-319	-1,094	0	0	-1,499
Net loss	-27	-192	-659	0	0	-879
2009						
EL	-81	-198	-451	-21	-3	-754
Gross loss	-108	-236	-1,479	-19	0	-1,842
Net loss	-97	-148	-1,262	21	0	-1,486

1) SME Retail is included in the corporate segment.

borrower domicile. Of the Nordic countries Denmark has the largest share of lending with approx. 27% or EUR 92bn. Other EU countries represent the main part of the lending outside the Nordic countries. For a breakdown of the loan portfolio by geography see the Annual Report.

# 4.8.1.1 Lending to corporate customers

Loans to corporate customers increased 7% to EUR 181bn (EUR 169bn). The industries real estate and energy together with public and organisations increased the most in 2011. The three largest industries account for approximately 19% of total lending. Real estate remains the largest industry in the lending portfolio, at EUR 44.8bn (EUR 42.5bn).

The distribution of loans to corporate by size of loans, seen in table 4.27, shows a high degree of diversification where approximately 67% of the corporate volume represents loans up to EUR 50m per customer.

The real estate portfolio, shown in table 4.28, predominantly consists of relatively large and financially strong companies, with 76% (71%) of the lending in rating grades 4- and higher. There is a higher level of collateral coverage for the real estate portfolio than for other corporate customers. 38% or EUR 17bn of lending to the real estate industry is to companies in Sweden and more than 40% is to companies with mainly residential real estate.

Loans to shipping and offshore increased by 7% to EUR 12.2bn (EUR 11.4bn) in 2011.

The severe deterioration of economic outlooks in the second half of 2011 strongly affected highly cyclical sectors such as the shipping industry and Nordea's loan losses to the industry increased during the year. Especially the tanker market has been hit hard with lower global demand and increased overcapacity affecting freight rates negatively. It has caused further deterioration of collateral values and it has been more difficult to find ways for suc-

cessful restructurings. In other shipping segments, the situation is more stable, although markets are not strong. Nordea has necessary work-out resources to handle problem customers and identify new potential risk customers early.

The shipping portfolio is well diversified by type of vessel, has a focus on large and financially robust industrial players and exhibits strong credit quality, with an average rating of 4. Nordea is a leading bank to the global shipping and offshore sector with strong brand recognition and a world leading loan syndication franchise. Reflecting Nordea's global customer strategy, there is an even distribution between Nordic and non-Nordic customers. The approach to the industry remains unchanged with conservative terms and a counter-cyclical lending policy.

# 4.8.1.2 Lending to household customers

In 2011, lending to household customers increased by 7% to EUR 151bn (EUR 141bn), mortgage loans increased by 8% to EUR 120bn, and consumer loans increased by 5% to EUR 31bn. The proportion of mortgage loans of total household loans was 80% (79%), of which the Nordic market accounts for 94%.

# 4.8.2 Impaired loans

In the tables 4.30–4.33 impaired loans, loan losses and allowances are distributed and stated according to International Financial Reporting Standard (IFRS) as in the Annual Report which differs somewhat from the CRD (further explained in section 4.2). In table 4.30, impaired loans to corporate customers are distributed by industry.

Impaired loans gross increased 12% during the year to EUR 5,438m from EUR 4,849m, corresponding to 139 basis points of total loans. 60% of impaired loans gross are performing loans and 40% are non-performing loans. Impaired loans net, after allowances for individually

Table 4.27 Loans to corporate customers, split by size of loan

	31 Dec 2011		31 Dec 2010		
Size EURm	Loans EURbn	%	Loans EURbn	%	
0-10	75.6	41.7	68.8	40.7	
10-50	44.9	24.8	37.6	22.3	
50-100	21.6	11.9	18.5	10.9	
100-250	24.0	13.2	21.2	12.6	
250-500	13.2	7.3	11.1	6.6	
500-	1.9	1.0	11.7	6.9	
Total	181.2	100%	169.1	100%	

Table 4.28 Real estate management industry, loans and total exposure, split by country

_	31 Dec 2011		31 Dec 2010		
EURbn	Loans	%	Loans	%	
Denmark	7.3	16.3	6.5	15.3	
Finland	8.0	17.9	7.4	17.3	
Norway	10.0	22.2	9.6	22.6	
Sweden	17.0	38.0	17.0	39.9	
Baltic countries	1.4	3.1	1.2	2.9	
Poland	0.4	0.8	0.2	0.4	
Russia	0.4	1.0	0.4	0.9	
Other	0.3	0.6	0.3	0.7	
Total	44.8	100%	42.5	100%	

Table 4.29 Shipping and offshore industry, loans

_	31 Dec 2011		31 Dec 2010		
EURbn	Loans	%	Loans	%	
Bulk carriers	1.4	11.1	1.8	15.3	
Product tankers	1.1	9.0	0.9	8.1	
Crude tankers	1.5	12.6	1.0	8.7	
Chemical tankers	0.9	7.3	0.8	7.3	
Gas tankers	1.0	8.2	0.7	6.4	
Other Shipping	2.8	22.9	3.1	27.1	
Offshore and Oil Services	3.5	28.9	3.1	27.1	
Total	12.2	100.0%	11.4	100.0%	

assessed impaired loans, amounted to EUR 3,546m (EUR 3,097m), corresponding to 91 basis points of total loans. Allowances for individually assessed loans increased to EUR 1,892m (EUR 1,752m) and allowances for collectively assessed loans decreased to EUR 579m (EUR 782m). The decrease in allowances for collectively assessed loans follows improved rating of the corporate customers. The ratio of individual allowances to cover impaired loans was 35%, while total allowances in relation to impaired loans gross decreased to 45% (52%). The industries with the largest increases in impaired loans were shipping, financial institutions, consumer staples and also consumer lending to

households. Provisions for off-balance sheet items have decreased to EUR 162m (EUR 331m) in 2011.

In table 4.31, impaired loans are distributed by geography and industry. The increase in impaired loans is mainly related to Denmark where the prolonged difficult economic environment has negatively affected overleveraged household, agriculture and SME customers. The overall credit quality is still good in Denmark and positive rating migration has continued in the corporate portfolio as most corporates have a strong financial position with a relatively good outlook.

Table 4.30 Loans, impaired loans and allowances, split by customer type, 31 December 2011

				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Allowances for		
EURm	Loans before allowances 2010	Loans before allowances 2011	Impaired loans before allowances	Impaired loans in % of loans	collectively assessed loans	Specific allowances	Provisioning ratio
To credit institutions	15,824	51,893	26	0.05	-2	-26	108%
- of which banks	12,658	49,546	26	0.05	<b>-</b> 2	-26	108%
– of which other credit institutions	3,166	2,348		-	_		
To the public¹	316,709	339,646	5,412	1.59	-577	-1,866	45%
– of which corporate	170,995	182,957	3,717	2.03	-319	-1,417	47%
Energy (oil, gas, etc.)	3,977	4,996	0	0.01	-12	0	
Metals and mining materials	1,356	1,993	5	0.35	-6	-3	164%
Paper and forest materials	2,339	2,518	8	0.44	-3	-3	79%
Other materials (building materials, etc,)	6,051	6,116	304	4.66	-32	-154	61%
Industrial capital goods	2,036	2,087	110	7.35	-4	-61	59%
Industrial commercial services, etc.	16,550	16,157	317	1.78	-12	-138	47%
Construction and civil							
engineering	4,640	5,043	191	4.00	-21	-71	48%
Shipping and offshore	11,544	12,309	443	3.07	-7	-130	31%
Transportation	4,504	4,540	73	1.70	-12	-22	47%
Consumer durables (cars, appliances, etc.)	3,603	3,533	206	5.64	-5	-73	38%
Media and leisure	3,008	2,856	112	4.30	-3	-51	48%
Retail trade	11,586	11,793	358	2.99	-31	-203	65%
Consumer staples (food, agriculture, etc.)	12,729	12,044	547	4.19	-65	-159	41%
Health care and pharmaceuticals	2,060	2,093	19	1.07	-1	-4	25%
Financial institutions	21,025	12,639	252	1.36	-6	-85	36%
Real estate management	42,791	45,046	523	1.05	-67	-156	43%
IT software, hardware and services	1,924	1,544	61	3.64	-8	-31	64%
Telecommunication equipment	1,924	1,344	6	2.50	-8 0	-31 -7	114%
Telecommunication operators	1,698	1,230	1	0.09	-1	0	114%
Utilities (distribution and	1,090	1,230	1	0.09	-1	U	11070
production)	4,775	5,412	6	0.16	-3	-3	88%
Other	12,637	28,827	174	0.64	-21	-62	48%
– of which household	141,066	151,666	1,695	1.12	-258	-449	42%
Mortgage financing	111,355	120,558	643	0.53	-120	-84	32%
Consumer financing	29,711	31,109	1,052	2.64	-138	-365	48%
– of which public sector	4,647	5,023	0	0.00	0	0	104%
Total loans in the banking operations	332,533	391,539	5,438	1.39	-579	-1,892	45%
Loans in the life insurance operations	327	878					
Total loans including life insurance operations	332,860	392,417	5,438	1.39	-579	-1,892	45%

Provisions for off-balance sheet items for 2011 were EUR 13m for credit institutions and EUR 149m related to lending to the public. 1) Corresponding lending figure after allowances EUR 337,203m

Table 4.31 Impaired loans gross and allowances split by country and industry, 31 December 2011

Metals and mining materials   7	EURm	Total 2010	Total 2011	Denmark	Finland	Norway	Sweden	Baltic	Poland	Russia	Allow- ances	Provision- ing ratio
Metales and mining materials   7	Energy (oil, gas etc)	0	0	0	0	0	0	0	0	0	12	
Paper and forest materials												
December   Part		7	5	0	1	1	0	0	0	4	9	164%
Part		64	8	4	2	1	0	0	0	0	6	79%
goods         140         110         57         41         0         11         0         0         6         59%           Industrial commercial services, etc.         267         317         107         124         47         13         22         3         0         150         47%           Construction and engineering         188         191         74         32         23         3         16         4         39         91         48%           Shipping and off-shore         263         443         173         34         167         70         0         0         0         137         31%           Transportation         65         73         32         28         4         22         0         6         0         35         4%         70         0         0         0         13         4%         4%           Consumer durables         233         206         68         35         3         94         4         2         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	(building materials	310	304	23	128	10	83	39	8	13	186	61%
cial services, etc.         267         317         107         124         47         13         22         3         0         150         47%           Construction and engineering engineering regineering         188         191         74         32         23         3         16         4         39         91         48%           Shipping and off-shore         263         443         173         34         167         70         0         0         0         35         34%           Consumer durables (cars, appliances etc.)         233         206         68         35         3         94         4         2         0         78         38%           Media and leisure         105         112         46         53         4         5         3         0         0         24         48%           Retail trade         410         358         151         129         27         27         21         3         0         24         48%           Retail trade         410         358         151         129         7         11         3         12         1         4         25         41%           Heath Irade		140	110	57	41	0	11	0	0	0	65	59%
engineering         188         191         74         32         23         3         16         4         39         91         48%           Shipping and off-shore         263         443         173         34         167         70         0         0         0         137         31%           Transportation         65         73         32         28         4         2         0         6         0         35         47%           Consumer durables (cars, appliances etc.)         233         206         68         35         3         94         4         2         0         78         38%           Media and leisure         105         112         46         53         4         5         3         0         0         54         48%           Retail trade         410         358         151         129         27         27         21         3         0         254         48%           Retail trade         410         358         494         23         11         3         12         1         4         225         41%           Health care and pharmaceuticals         15         19         7 </td <td></td> <td>267</td> <td>317</td> <td>107</td> <td>124</td> <td>47</td> <td>13</td> <td>22</td> <td>3</td> <td>0</td> <td>150</td> <td>47%</td>		267	317	107	124	47	13	22	3	0	150	47%
shore         263         443         173         34         167         70         0         0         0         137         31%           Transportation         65         73         32         28         4         2         0         6         0         35         4%           Consumer durables         233         206         68         35         3         94         4         2         0         78         38%           Media and leisure         105         112         46         53         4         5         3         0         0         54         48%           Retail trade         410         358         151         129         27         27         21         3         0         234         656           Consumer staples (food, agriculture, etc.)         431         547         494         23         11         0         0         0         0         25         41%           Health care and pharmaceuticals         15         19         7         11         0         0         0         0         9         25%           Financial institutions         13         252         234         15		188	191	74	32	23	3	16	4	39	91	48%
Transportation   Consumer durables   Consumer spapiliance setc.   Consumer spapiliance setc.   Consumer staples   Consumer cution   Consumer   Consum		262	4.40	170	2.4	1/7	<b>5</b> 0	0	0	0	107	010/
Consumer durables (cars, appliances (cars, app												
Cars, appliances etc.   233   206   68   35   3   94   4   2   0   78   38%     Media and leisure   105   112   46   53   4   5   3   0   0   54   48%     Media and leisure   105   112   46   53   4   5   3   0   0   54   48%     Media and leisure   105   112   46   538   4   5   3   0   0   54   48%     Media and leisure   105   112   46   538   4   5   3   0   0   54   48%     Media and leisure   410   358   151   129   27   27   21   3   0   234   65%     Consumer staples (food, agriculture, etc.)   431   547   494   23   11   3   12   1   4   225   41%     Health care and pharmaceuticals   15   19   7   11   0   0   0   0   0   0   0   5   25%     Financial institutions   113   252   234   15   2   0   1   0   0   0   0   223   43%     Financial institutions   13   252   234   15   2   0   1   10   0   0   0   0   223   43%     IT software, hardware and services   75   61   29   19   1   13   0   0   0   0   0   39   64%     Telecommunication equipment   9   6   0   0   0   0   0   0   0   0   39   64%     Telecommunication operators   133   1   1   0   0   0   0   0   0   0   0	-	65	73	32	28	4	2	0	6	0	35	47%
Media and leisure         105         112         46         53         4         5         3         0         0         54         48%           Retail trade         410         358         151         129         27         27         21         3         0         234         65%           Consumer staples (food, agriculture, etc.)         431         547         494         23         11         3         12         1         4         225         41%           Health care and pharmaceuticals         15         19         7         11         0         0         0         0         0         525%           Financial institutions         113         252         234         15         2         0         1         0         0         92         36%           Real estate         505         523         190         31         130         31         142         0         0         92         36%           Real estate         505         523         190         13         130         0         0         0         0         0         0         0         0         0         0         0         0         0<		233	206	68	35	3	94	4	2	0	78	38%
Retail trade	= =					4	5	3	0	0	54	
Final Content	Retail trade	410	358		129	27	27	21	3	0	234	
Pharmaceuticals	(food, agriculture,	431	547	494	23	11	3	12	1	4	225	41%
Real estate         505         523         190         31         130         31         142         0         0         223         43%           IT software, hardware and services         75         61         29         19         1         13         0         0         0         39         64%           Telecommunication equipment         9         6         0         6         0         0         0         0         0         0         7         114%           Telecommunication operators         133         1         1         0         0         0         0         0         0         118%           Utilities (distribution and productions)         1         6         6         0         0         0         0         0         0         5         88%           Other, public and organisations         166         174         108         49         0         6         11         0         0         84         48%           Corporate         3,500         3,717         1,804         760         41         9         234         40         4         204         32%           Household consumer         754 <t< td=""><td></td><td>15</td><td>19</td><td>7</td><td>11</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>5</td><td>25%</td></t<>		15	19	7	11	0	0	0	0	0	5	25%
Transitivare, hard-ware and services   75   61   29   19   1   13   0   0   0   39   64%     Telecommunication equipment   9   6   0   6   0   0   0   0   0   0   0	Financial institutions	113	252	234	15	2	0	1	0	0	92	36%
ware and services         75         61         29         19         1         13         0         0         0         39         64%           Telecommunication equipment         9         6         0         6         0         0         0         0         0         7         114%           Telecommunication operators         133         1         1         0         0         0         0         0         0         1         118%           Utilities (distribution and productions)         1         6         6         0         0         0         0         0         0         5         88%           Other, public and organisations         166         174         108         49         0         6         11         0         0         84         48%           Corporate         3,500         3,717         1,804         760         431         362         271         28         60         1,736         47%           Household mortgages         562         643         47         267         41         9         234         40         4         204         32%           Household consumer         754         1,	Real estate	505	523	190	31	130	31	142	0	0	223	43%
equipment         9         6         0         6         0         0         0         0         7         114%           Telecommunication operators         133         1         1         0         0         0         0         0         0         1         118%           Utilities (distribution and productions)         1         6         6         0         0         0         0         0         0         5         88%           Other, public and organisations         166         174         108         49         0         6         11         0         0         84         48%           Corporate         3,500         3,717         1,804         760         431         362         271         28         60         1,736         47%           Household mortgages         562         643         47         267         41         9         234         40         4         204         32%           Household consumer         754         1,052         622         366         47         15         3         0         503         48%           Public sector         0         0         0         0 <td< td=""><td></td><td>75</td><td>61</td><td>29</td><td>19</td><td>1</td><td>13</td><td>0</td><td>0</td><td>0</td><td>39</td><td>64%</td></td<>		75	61	29	19	1	13	0	0	0	39	64%
operators         133         1         1         0         0         0         0         0         0         1         18%           Utilities (distribution and productions)         1         6         6         0         0         0         0         0         0         0         5         88%           Other, public and organisations         166         174         108         49         0         6         11         0         0         84         48%           Corporate         3,500         3,717         1,804         760         431         362         271         28         60         1,736         47%           Household mortgages         562         643         47         267         41         9         234         40         4         204         32%           Household consumer         754         1,052         622         366         47         15         3         0         503         48%           Public sector         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	equipment	9	6	0	6	0	0	0	0	0	7	114%
and productions)         1         6         6         0         0         0         0         0         0         5         88%           Other, public and organisations         166         174         108         49         0         6         11         0         0         84         48%           Corporate         3,500         3,717         1,804         760         431         362         271         28         60         1,736         47%           Household mortgages         562         643         47         267         41         9         234         40         4         204         32%           Household consumer         754         1,052         622         366         47         15         3         0         503         48%           Public sector         0	operators	133	1	1	0	0	0	0	0	0	1	118%
Organisations         166         174         108         49         0         6         11         0         0         84         48%           Corporate         3,500         3,717         1,804         760         431         362         271         28         60         1,736         47%           Household consumer         562         643         47         267         41         9         234         40         4         204         32%           Household consumer         754         1,052         622         366         47         15         3         0         503         48%           Public sector         0	and productions)	1	6	6	0	0	0	0	0	0	5	88%
Household mortgages 562 643 47 267 41 9 234 40 4 204 32% Household consumer 754 1,052 622 366 47 15 3 0 503 48% Public sector 0 0 0 0 0 0 0 0 0 0 0 0 0 0 104% Total impaired loans 4,816 5,412 2,473 1,393 519 385 505 71 64 Allowances 2,498 2,443 1,097 788 258 226 -1 34 34 2,443		166	174	108	49	0	6	11	0	0	84	48%
mortgages         562         643         47         267         41         9         234         40         4         204         32%           Household consumer         754         1,052         622         366         47         15         3         0         503         48%           Public sector         0         0         0         0         0         0         0         0         0         0         0         104%           Total impaired loans         4,816         5,412         2,473         1,393         519         385         505         71         64         4         2,443         1,097         788         258         226         -1         34         34         2,443         2,443         2,443         2,443         2,489         2,489         2,443         1,097         788         258         226         -1         34         34         2,443	Corporate	3,500	3,717	1,804	760	431	362	271	28	60	1,736	47%
consumer         754         1,052         622         366         47         15         3         0         503         48%           Public sector         0         0         0         0         0         0         0         0         0         0         0         0         104%           Total impaired loans         4,816         5,412         2,473         1,393         519         385         505         71         64	Household mortgages	562	643	47	267	41	9	234	40	4	204	32%
Public sector         0         0         0         0         0         0         0         0         0         0         0         104%           Total impaired loans         4,816         5,412         2,473         1,393         519         385         505         71         64           Allowances         2,498         2,443         1,097         788         258         226         -1         34         34         2,443		754	1,052	622	366	47	15		3	0	503	48%
Total impaired loans         4,816         5,412         2,473         1,393         519         385         505         71         64           Allowances         2,498         2,443         1,097         788         258         226         -1         34         34         2,443	Public sector	0			0	0		0	0		0	104%
Allowances 2,498 2,443 1,097 788 258 226 -1 34 34 2,443		4,816	5,412		1,393	519	385		71	64		
Provisioning ratio 52% 45% 44% 57% 50% 59% 0% 47% 53%							226	-1	34	34	2,443	
	Provisioning ratio	52%	45%	44%	57%	50%	59%	0%	47%	53%		

Table does not includ credit institutions.

Table 4.32 Reconciliation of allowance accounts for impaired loans, 2011

EURm	Individually	Collectively	T-1-1
EUKIII	assessed	assessed	Total
Opening balance, 1 Jan 2011	-1,752	-782	-2,534
Provisions	-1,065	-90	-1,155
Reversals	304	293	597
Changes through the income statement	-761	203	-558
Allowances used to cover write-offs	632	0	632
Reclassification			0
Currency translation differences	-11	0	-11
Closing balance, 31 Dec 2011	-1,892	-579	-2,471

Table 4.33 Loan losses, 2011

EURm	New provisions and write-offs	Reversals and recoveries	Net loan losses	Loan loss ratio bps
To credit institutions	-2	10	8	_
– of which banks	-2	10	8	_
– of which other financial institutions				
To the public	-1,476	733	-743	24
– of which corporate	-1,059	578	-481	28
Energy (oil, gas, etc.)	-1	6	5	_
Metals and mining materials	0	1	0	_
Paper and forest materials	-5	13	9	_
Other materials (building materials, etc.)	-69	41	-29	49
Industrial capital goods	-15	14	0	2
Industrial commercial services, etc.	-74	54	-20	12
Construction and civil engineering	-37	32	-5	11
Shipping and offshore	-175	50	-125	110
Transportation	-16	9	-8	18
Consumer durables (cars, appliances, etc.)	-15	22	7	_
Media and leisure	-35	16	-19	64
Retail trade	-102	68	-34	30
Consumer staples (food, agriculture, etc.)	-94	28	-66	53
Health care and pharmaceuticals	-2	4	2	_
Financial institutions	-45	21	-24	11
Real estate management	-74	51	-24	6
IT software, hardware and services	-75	15	-60	317
Telecommunication equipment	-1	0	0	31
Telecommunication operators	0	1	0	_
Utilities (distribution and production)	3	4	7	_
Other	-227	130	-97	78
– of which household	-417	154	-263	19
Mortgage financing	-103	42	-61	6
Consumer financing	-314	112	-201	69
– of which public sector	0	0	0	0
Total	-1,478	743	-735	22

#### 4.8.3 Loan losses

Table 4.33 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. Loan losses decreased 16% to EUR 735m in 2011 from EUR 879m in 2010. EUR 481m relates to corporate customers (EUR 660m) and EUR 263m (EUR 220m) relates to household customers, of which EUR 201m is loan losses relating to consumer loans. Within corporates the main losses were in sectors shipping, consumer staples and IT software/hardware services. The severe deterioration of economic outlooks in the second half of 2011 strongly affected highly cyclical sectors such as the shipping industry. Weak market conditions in the tanker, dry cargo and containership markets resulted in a general decline in vessel values during the year resulting in increased losses.

Collective net loan losses were positive EUR 206m following positive rating migration during the year. In the Baltic countries, the loan loss ratio was 14 basis points compared to 99 basis points a year ago.

Loan losses corresponded to 23 basis points in 2011 (31 basis points), of which 24 basis points in H2 2011, as shown in figure 4.9. The situation was stable H2/H1. Loan losses are well in line with Nordea's risk appetite over the cycle. As shown in table 4.33, the loan loss ratio was 22 basis points when lending to the public as well as lending to credit institutions is included (29 basis points).

Figure 4.9 Annualised net loan losses

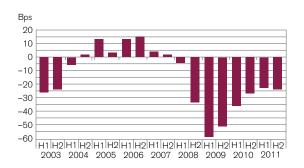


Table 4.34 shows past due loans not impaired split by corporate and household customers. Past due loans to corporate customers that are not considered impaired were at end of 2011 EUR 1,443 down from EUR 1,825m one year ago, while past due loans for household customers increased to EUR 1,754m (EUR 1,603m).

To recognise the risk related towards lending to developing countries, Nordea carries transfer risk allowance and provisions for non-investment grade rated countries. The transfer risk exposure is dominated by a few countries and is primarily short-term and trade related. As can be seen in table 4.35, Asia accounts for more than half of the total transfer risk exposure where China (EUR 267m) and Republic of Korea (EUR 255m) contributing the highest reflecting these countries' importance for Nordea's Nordic corporate customers. The total transfer risk allowance and provisions at the end of 2011 was EUR 13m, down from EUR 25m 2010.

Table 4.34 Past due loans, not impaired, 31 December 2011

EURm	Corporate customers	Household customers
6–30 days	920	991
31–60 days	186	329
61–90 days	114	127
>90 days	222	306
Total	1,443	1,754
Past due loans, not impaired, in %	0.85%	1.25%

# Past due loans, not impaired, 31 December 2010

EURm	Corporate customers	Household customers
<u> </u>	customers	customers
6–30 days	1,021	841
31-60 days	491	349
61–90 days	91	114
>90 days	222	298
Total	1,825	1,603
Past due loans, not impaired, in %	1.08%	1.14%

**Table 4.35 Transfer risk exposure** 

	31 Dec	31 Dec
EURm	2011	2010
Asia	911	1,302
Eastern Europe and CIS	134	178
Latin America	161	849
Middle East	375	521
Africa	163	175
Total	1,743	3,025

# 5. Market risk

The market risk taking activities are mainly oriented towards the Nordic and European markets, and the risk is to a large extent driven by interest rate risk. The total consolidated market risk for the Nordea Group, measured by VaR, was on average EUR 73m in 2011, compared to EUR 84m in 2010. However, the market risk was significantly reduced during the period of increased turbulence in financial markets during the year, and the average VaR during the second half of 2011 was EUR 54m. At the end of 2011, total VaR was EUR 47m.

# 5.1 Market risk management

#### 5.1.1 Governance of market risk

Group Market Risk Management (GMRM) has the operational responsibility for the development and maintenance of the group wide market risk framework. The framework defines common management principles and policies for the market risk management in the Nordea Group. These principles and policies are approved by the Board of Directors. The same reporting and control processes are applied for market risk exposures in both the trading and banking books.

Transparency in all elements of the risk management process is central to maintaining risk awareness and a sound risk culture throughout the organisation. 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, whereas GEM, the Board of Directors and its associated risk committees receive reports on a monthly 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.
- Having detailed business procedures that clearly state how policies and guidelines are implemented.
- Defining clear risk mandates (at departmental, desk and individual levels), in terms of limits and restrictions on which instruments may be traded.

- Having a framework for approval of traded financial instruments and methods for the valuation of these that require an elaborate analysis and documentation of the instruments' features and risk factors.
- Having risk models that make risk figures easily decomposable.
- Having a "business intelligence" type risk IT system that allows all traders and controllers to easily monitor and analyse their risk figures.
- Having proactive information sharing between trading and risk control.

# 5.1.2 Management of market risk

Market risk is defined as the risk of value loss in Nordea's holdings and transactions as a result of changes in market rates and parameters that affect the market value, for example changes to interest rates, credit spreads, FX rates, equity prices, commodity prices and option volatilities.

Nordea Markets and Group Treasury are the key contributors to market risk in the Nordea Group. Nordea Markets is responsible for the customer-driven trading activities, whereas Group Treasury is responsible for asset and liability management, liquidity buffer, investments, and funding activities for Nordea's own account. For all other banking activities, the basic principle is that market risks are eliminated by matching assets, liabilities and off-balance sheet items.

#### 5.1.2.1 Structural market risks

Structural FX risk arises primarily from investments in subsidiaries and associated enterprises denominated in foreign currencies. The general principle is to hedge this by matched funding, although exceptions from this principle may be made in markets where matched funding is impossible to obtain, or can only be obtained at an excessive cost.

Earnings and cost streams generated in foreign currencies or from foreign branches generate an FX exposure, which for the individual Nordea companies is handled in each company's FX position. Direct profit and loss in foreign exchange in Nordea's legal entities must be hedged at least monthly.

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 over time. In Nordea this is seen as structural interest income risk (SIIR).

#### 5.1.2.2 Other market risks in Nordea

Market risk on Nordea's account also arises from the Nordea sponsored defined benefit pension plans for employees (pension risk) and from the investment of policyholders' money with guaranteed minimum yields in Life & Pensions. The latter is described in chapter 9.

#### 5.1.3 Measurement of market risk

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

In relation to the implementation of the new capital requirements directive (CRD III), Nordea has also introduced three new risk measures from end of 2011; Stressed Value-at-Risk, the Incremental Risk Measure and the Comprehensive Risk Measure. The three new risk measures are now included in the calculation of regulatory capital for market risk in the trading book.

#### 5.1.3.1 Value-at-Risk

Nordea's VaR model is a ten-day, 99% confidence level model, which uses the expected shortfall approach and is based on historical simulation on up to two years' historical changes in market prices and rates. This implies that Nordea's 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 both in the trading book and in the banking book.

VaR is used to measure interest rate, credit spread, FX, equity and liquid commodity risks. A total VaR measure calculated 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.

# 5.1.3.2 Stressed Value-at-Risk

Stressed VaR is calculated using a similar methodology as the ordinary VaR measure. However, whereas the ordinary VaR model is based on up to two years' historical data, stressed VaR is based on a 250 day period with considerable stress in financial markets.

#### 5.1.3.3 Incremental risk measure

The incremental risk measure (IRM) measures the risk of losses due to the credit migration or default of issuers of tradable corporate debt or credit derivatives held in the trading book. Nordea's IRM model is based on montecarlo simulations and measures the risk with a 99.9% probability over a one-year horizon.

#### 5.1.3.4 Comprehensive risk measure

The comprehensive risk measure (CRM) measures the total risk related to positions in credit correlation products. This includes the risk of losses due to the credit migration or default of issuers of tradable corporate debt and other risk factors specifically relevant for correlation products. Similarly to the IRM model, Nordea's CRM model is also based on Monte Carlo simulations and measures the risk with a 99.9% probability over a one-year horizon.

# 5.1.3.5 Stress testing

Stress tests are used to estimate the possible losses that may occur under extreme market conditions. 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. Subjective stress tests, where the portfolios are exposed to scenarios for financial developments that are deemed particularly relevant at a particular time. The scenarios are inspired by the financial, the macroeconomic or geopolitical situation, or the current composition of the portfolio.
- 3. 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.

Historical stress tests and sensitivity tests are conducted daily for the consolidated risk across banking book and trading book. Subjective stress tests are conducted periodically for the consolidated risk across the banking book and trading book.

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 group wide stress tests, see chapter 10.

# 5.1.4 Market risk appetite

The market risk appetite in Nordea is expressed through risk appetite statements issued by the Group Board of Directors. The market risk appetite statements are defined in terms of maximum tolerated loss within a quarter and maximum level of market risk economic capital in relation to total economic capital.

Compliance with the risk appetite is ensured by the cascading of market risk limits throughout the organisation and through the use of stop-loss rules.

For more information on the risk appetite framework in Nordea see section 2.2.2.

Table 5.1 Consolidated market risk for the Nordea Group, 31 December 2011

EURm	Measure	31 Dec 2011	2011 high	2011 low	2011 avg	31 Dec 2010
Total risk	VaR	47.2	114.7	41.1	72.5	80.9
– Interest rate risk	VaR	37.9	129.1	32.1	79.7	91.4
– Equity risk	VaR	6.1	14.9	1.5	7.8	13.0
– Credit spread risk	VaR	11.2	34.6	9.7	20.2	33.0
– Foreign exchange risk	VaR	5.0	15.8	3.8	8.2	13.9
Diversification effect		22%	49%	16%	37%	47%

Table 5.2 Market risk for the trading book, 31 December 2011

EURm	Measure	31 Dec 2011	2011 high	2011 low	2011 avg	31 Dec 2010
Total risk	VaR	22.6	70.8	18.6	34.3	31.8
– Interest rate risk	VaR	21.2	57.1	15.5	29.4	24.6
– Equity risk	VaR	1.2	4.9	0.5	1.9	1.5
– Credit spread risk	VaR	6.1	17.1	5.6	10.7	14.5
– Foreign exchange risk	VaR	4.2	13.6	2.9	6.2	8.2
Diversification effect		31%	52%	13%	30%	35%
Total stressed VaR <sup>1</sup>	sVaR	63.6	73.4	28.1	45.2	

<sup>1)</sup> Stressed VaR has been calculated since 1 October 2011, consequently the high, low and average figures relate only to this period.

Table 5.3 Methods for calculating capital requirements

	Interest rate risk			Equity risk	FX risk
EURm	General	Specific	General	Specific	General
Nordea Group	IA	$IA^1$	IA	$IA^1$	IA
Nordea Bank Danmark	IA	SA	IA	SA	IA
Nordea Bank Finland	IA	$IA^1$	IA	$IA^1$	IA
Nordea Bank Norge	IA	SA	IA	SA	IA

#### 5.2 Consolidated market risk for the Nordea Group

The consolidated market risk for the Nordea Group presented in table 5.1 includes both the trading book and the banking book. The total VaR was EUR 47m (EUR 81m) at the end of 2011 demonstrating a considerable diversification effect between interest rate, equity, credit spread and foreign exchange risk, as the total VaR is lower than the sum of the risk in the four categories. The commodity risk was at an insignificant level.

## 5.3 Market risk for the trading book

The market risk for the trading book is presented in table 5.2. The total VaR was EUR 23m (EUR 32m) at the end of 2011. The main contribution to the total VaR was interest rate risk. The interest rate VaR was EUR 21m (EUR 25m), with the largest part of the interest rate sensitivity stemming from interest rate positions in EUR, DKK and SEK.

# 5.4 Capital requirements for market risk in the trading book (pillar I)

Market risk in the CRD context contains two categories: general risk and specific risk. General risk is related to changes in overall market prices and specific risk is related to price changes for specific issuers. When the capital requirements for market risk are calculated using the internal model approach, general risk is based on VaR with an additional capital charge for stressed VaR, whereas specific risk is based on equity VaR and credit spread VaR with an additional capital charge for incremental risk and comprehensive risk.

Nordea uses the internal model approach to calculate the market risk capital requirements for the predominant part of the trading book. However, for specific interest rate risk from Danish mortgage bonds and for specific equity risk from structured equity options, the market risk capital

IA:internal model approach, SA: standardised approach.

1) 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 approach.

Table 5.4 Capital requirements for market risk, 31 December 2011

	Tradir	ng book, IA	Tradir	ng book, SA	Bankir	ng book, SA		Total
EURm	RWA	Capital requirements	RWA	Capital requirements	RWA	Capital requirements	RWA	Capital requirements
Interest rate risk <sup>1</sup>	1,272	102	1,618	129			2,890	231
Equity risk	56	4	929	74			985	79
Foreign exchange risk	208	17			698	56	906	72
Commodity risk			24	2			24	2
Diversification effect	-447	-36					-447	-36
Stressed Value-at-Risk	2,081	166					2,081	166
Incremental risk charge	787	63					787	63
Comprehensive risk charge	917	73					917	73
Total	4,875	390	2,571	206	698	56	8,144	652

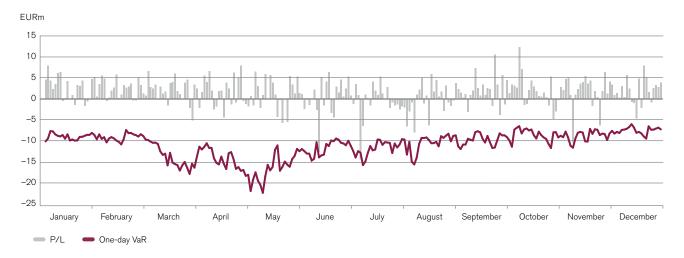
<sup>1)</sup> Interest rate risk in the column Trading book IA includes both general and specific interest rate risk which is elsewhere referred to as interest rate VaR and credit spread VaR.

# Capital requirements for market risk, 31 December 2010

	Tradir	ng book, IA	Tradir	ng book, SA	Bankir	ng book, SA		Total
EURm	RWA	Capital requirements						
Interest rate risk <sup>1</sup>	1,934	155	2,798	224			4,732	379
Equity risk	50	4	621	50			671	54
Foreign exchange risk	368	29			979	78	1,347	107
Commodity risk			50	4			50	4
Diversification effect	-1,035	-83					-1,035	-83
Total	1,317	105	3,469	278	979	78	5,765	461

<sup>1)</sup> Interest rate risk in the column Trading book IA includes both general and specific interest rate risk which is elsewhere referred to as interest rate VaR and credit spread VaR.

Figure 5.1 Backtest of VaR for the trading book:
Profit/loss (actual, excluding commissions) against one-day VaR



requirements are calculated using the standardised approach. The usage of the internal model approach in the Group's legal entities is shown in table 5.3.

In addition to positions in the trading book, market risk capital requirements also cover FX risk in the banking book through the standardised approach.

By the end of 2011, RWA and the capital requirements for market risk in the trading book were EUR 8,144m (EUR 5,765m) and EUR 652m (EUR 461m), respectively. The decomposition of the current figures is presented in table 5.4. With the adoption of the CRD III amendment, new risk types under the internal model approach have been introduced. For the Nordea Group this implies an additional capital charge for stressed VaR, incremental risk and comprehensive risk. In addition, under the standardised approach the risk weights for specific equity risk have increased. The total CRD III impact for the Nordea Group is an increase of EUR 3,984m in market risk RWA, which explains the increase in RWA between 2010 and 2011.

Without the effects from the CRD III, the RWA would have been significantly reduced as a consequence of actively reduced risk levels in the trading book (mainly interest rate risk).

## 5.4.1 Backtesting of the VaR model

Backtesting is conducted on a daily basis in accordance with the guidelines laid out by the Basel Committee on Banking Supervision. Backtests are conducted using both hypothetical profit/loss and actual profit/loss (hypothetical profit/loss is the profit/loss that would have been realised if the positions in the portfolio had been held constant during the following trading day). The profit/loss is in the backtest compared to one-day VaR figures.

#### 5.4.2 Validation of models used for calculation of IRM and CRM

The models used in the calculation of the incremental risk measure and the comprehensive risk measure are validated through an assessment of the quantitative and qualitative reasonableness of the various data being modelled (distribution of defaults and credit migrations, dynamics of credit spreads, recovery rates and correlations etc.). The input parameters are evaluated through a range of methods including sensitivity tests and scenario analysis.

#### 5.5 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 on 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. As of end 2011 the interest rate VaR in the banking book was EUR 26m (EUR 83m). Table 5.5 shows the net effect on fair value of a parallel shift in rates of up to 200 basis points.

#### 5.6 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 repricing periods, volumes or reference rates of assets, liabilities and derivatives do not correspond exactly.

Nordea's SIIR management is based on policy statements resulting in different SIIR measures, targets and organisational procedures.

Table 5.5 Interest rate sensitivities for the banking book, 31 December 2011, instantaneous interest rate movements

EURm	+200 bp	+100 bp	+50 bp	–50 bp	–100 bp	–200 bp
DKK	-31.8	-15.9	-7.9	7.9	15.9	31.8
EUR	-75.4	-35.9	-16.7	13.5	24.0	60.6
JPY	14.3	3.2	1.0	-0.6	-0.9	-1.3
NOK	-15.6	-7.8	-3.9	3.9	7.8	15.6
RUB	-20.8	-10.4	-5.2	5.2	10.4	20.8
SEK	-37.0	-18.5	-9.3	9.4	19.0	36.9
USD	-33.2	-16.0	-7.9	7.9	16.1	33.1
Total	-200.2	-101.7	-50.1	47.7	92.9	198.4

The totals are netted and include currencies not specified. In accordance with an analysis of account holder behaviour, a portion of non-maturing deposit accounts are assumed to be fixed term.

Table 5.6 Repricing gap analysis, 31 December 2011

			Interest rate fixing period						
EURm	Group balance sheet	Within 3 months	3-6 months	6–12 months	1–2 years	2–5 years	>5 years	No repricing	Total
Assets									
Interest bearing assets	492,929	348,839	24,437	20,564	17,288	11,862	19,526	50,413	492,929
Non interest bearing assets	223,273	0	0	0	0	0	0	223,273	223,273
Total assets	716,202	348,839	24,437	20,564	17,288	11,862	19,526	273,686	716,202
Liabilities and equity									
Interest bearing liabilities	431,861	310,726	17,610	16,571	15,794	39,722	23,049	8,389	431,861
Non interest bearing	284,341	0	0	0	0	0	0	284,341	284,341
Total liabilities and equity	716,202	310,726	17,610	16,571	15,794	39,722	23,049	292,730	716,202
Off-balance sheet items, net		-27,555	5,977	-5,452	-5,293	28,643	3,680	0	
Exposure		10,558	12,804	-1,460	-3,799	784	158	-19,044	
Cumulative exposure			23,362	21,902	18,103	18,886	19,044	0	
SIIR impact of increasing i	nterest rate	s for the yea							
Impact <sup>1</sup>		89	85	5					
Cumulative SIIR impact			174	179					

<sup>1)</sup> Impact is calculated based on +100bps change on exposure.

Table 5.7 Equity holdings outside the trading book, 31 December 2011

EURm	Book value	Fair value	Unrealised gains/losses <sup>3</sup>	Realised gains/losses <sup>3</sup>	Capital requirements
Investment portfolio <sup>1</sup>	710	710	-5	-17	57
Other <sup>2</sup>	137	137	8	39	11
Total	847	847	3	22	68

<sup>1)</sup> Of which listed equity holdings, 121.

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.

#### 5.6.1 SIIR measurement methods

The basic measures for SIIR are the two repricing gaps (increasing rates and decreasing rates) measuring the effect on Nordea's net interest income for a 12 month period of a one percentage point increase, respectively decrease, in all interest rates (note that table 5.6 below also covers repricing gaps over 12m). The repricing 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.

#### 5.6.2 SIIR analysis

At the end of the year, the SIIR for increasing market rates was EUR 179m (EUR 213m) and the SIIR for decreasing market rates was EUR –276m (EUR –230m). These figures imply that net interest income would increase if interest rates rise and decrease if interest rates fall.

# 5.7 Equity risk in the banking book

In table 5.7, the equity holdings in the banking book are grouped based on the intention of the holding. All equities in the table are booked at fair value. The portfolio of illiquid alternative investments is included with a fair value of EUR 638m (EUR 674m), of which hedge funds EUR 223m, private equity funds EUR 260m, credit funds EUR 94m and seed-money investments EUR 61m. All four types of investments are spread over a number of funds.

# 5.8 Determination of fair value of financial instruments

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 best evidence of fair value is the existence of published price quotations in an active market

<sup>2)</sup> Of which listed equity holdings, 33.

<sup>3)</sup> Result for 2011.

Table 5.8 Determination of fair value from quoted market prices or valuation techniques (Nordea Group, excl. Life & Pensions), 31 December 2011

_	Quoted prices in active markets for same instrument	Valuation technique using observable data	Valuation technique using non-observable data	
EURm	(Level 1)	(Level 2)	(Level 3)	Total
Assets				
Loans to credit institutions	48	8,791	0	8,839
Loans to the public	0	72,931	0	72,931
Debt securities	57,025	13,285	400	70,710
Shares	3,759	3	1,496	5,258
Derivatives	548	170,424	956	171,929
Other assets	0	6,854	0	6,854
Prepaid expenses and accrued income	0	205	0	205
Liabilities				
Deposits by credit institutions	0	20,138	0	20,138
Deposits and borrowings from the public	0	21,054	0	21,054
Debt securities in issue	31,756	6,087	0	37,843
Derivatives	358	165,731	1,241	167,330
Other liabilities	8,212	10,351	0	18,563
Accrued expenses and prepaid income	0	664	0	664

and when such prices exist they are used for the assignment of fair value. Published price quotations are predominantly used 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. These 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 for which quoted prices in an active market are not available.

The calculation of fair value using valuation techniques is supplemented by a portfolio adjustment for uncertainties associated with the model assumptions and uncertainties associated with the portfolio's counterparty credit risk and liquidity risk.

If non-observable data has a significant impact on the valuation, the instrument cannot be recognised initially at fair value and any upfront gains are therefore deferred and amortised over the contractual life of the contract.

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 Market Risk

Management (GMRM) and all models are reviewed on a regular basis.

The valuation framework is a joint responsibility between the Group CFO and the Group CRO. The Group Valuation Committee, a sub-committee to the Risk Committee consisting of senior management representatives from Group Finance, GMRM and the control organisations in the business divisions, serves as an oversight committee and supports the CFO and CRO on different issues in relation to the framework, including standards for valuation and processes for valuation and valuation control.

Table 5.8 shows fair value by valuation method as of 31 December 2011.

# 5.8.1 Compliance with requirements applicable to exposure 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 and processes are governed by policies and instructions developed and maintained by GMRM. The product 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 on-going 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 to match the Group's risk appetite. The risk management framework was redesigned during 2009 and 2010 and the implementation continues with enhanced focus on key risks as well as simplified reporting and structured follow-up procedures.

# **6.1 Operational risk management** 6.1.1 Governance of operational risk

Group Operational Risk and Compliance (GORC) 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 as well as educational and training activities are important components when managing operational risks. To cover this broad scope, Group Security, Group Compliance and Group Legal functions are included in Group Risk Management, and close cooperation is maintained with Group IT, 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 at the objective to follow best practice regarding market conduct and ethical standards in all business activities.

The key principle of operational risk in Nordea is the three lines of defense. The first line of defense is represented by the risk and compliance officer network in the business organisation, which ensures that operational and compliance risk is managed effectively within the Group. GORC, representing the second line of defense, has defined a common set of standards (Group Directives, processes and reporting) in order to manage these risks.

Group Internal Audit, representing the third line of defense, provides assurance to the Board of Directors on the risk management, control and governance processes.

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

# 6.1.2 Management 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 these risks. Management of risks is proactive, emphasising training and risk awareness.

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.

An important part of operational and compliance risk management is protecting the Group from being used for the purpose of money laundering and terrorist financing. Therefore the Group has well defined processes concerning customer identification and verification, customer acceptance, monitoring of customer relations, record keeping, detection and reporting of suspicious activities and transactions and employee training to ensure adequate awareness.

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.

Operational risks are managed based on common principles established for the Group. A common operating model and key processes are set forth in the Operational Risk Policy. During 2011 a new IT system for operational risk has been implemented, which allows a better alignment as well as connectivity between the processes, thereby providing better analyses and risk identification.

#### 6.1.3 Measurement of operational risk

6.1.3.1 Key processes

#### Risk self assessment

The risk self assessment process puts focus on the key risks, which are identified through a top-down approach with division management's involvement as well as a bottom-up approach where existing information from processes such as quality and risk analyses, incident reporting and product approval is included. The risks are then categorised, quantified, assessed and documented in a structured way with mitigating actions. Based on the prioritisation, each division identifies a set of key risks and GORC uses the risks and the prioritisations as input for the Group Risk Map, where Group risks are identified and followed up on separately. 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

#### Internal control checklist

The internal control process aims at ensuring fulfillment 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) is commented on and signed off by the division manager, and subsequently reported to GORC. 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.

## 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.

Business continuity management covers the broad scope from the procedures for handling incidents in the organisation via escalation procedures to crisis management on Group level. The most important parameters governing all business continuity preparedness are the recovery requirements and prioritisations of products and services. As most service chains are supported by IT applications, disaster recovery plans for technical infrastructure and IT systems constitute a core of the business continuity management in Nordea.

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 programmes or projects, significant changes to organisations, processes, systems and proce-

dures. In principle, the product approval process described above constitutes a QRA.

A compliance awareness programme targeted for senior management was introduced in 2011 and a group wide Operational Risk and Compliance Awareness Programme was launched in the end of 2011. Both programmes aim to set the tone at the top and increase the awareness of operational and compliance risk related threats and challenges throughout the organisation.

#### 6.1.3.2 Key reports

#### Annual report on internal control

The result and comments from the internal control process represent the main input. The reporting is provided annually.

GORC 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.

# Semi-annual reporting on operational and compliance

Semi-annual reporting on operational and compliance risks is done based on input from risk and compliance officers in the business. The risk and compliance officers are asked to make their own reflections on the division's future challenges, improvements and his/her own ability to work independently. Reporting also contains specific, ad hoc themes, focusing on currently relevant areas. Group reporting is based on the risk and compliance officers' reports as well as GORC's own observations and analysis of key risks, incident reporting and other relevant data. Group reports are sent to GEM and the Board of Directors.

#### **Incident reporting**

Incident reporting reflects Basel II standards and is compliant with ORX (Operational Riskdata Exchange Association) reporting requirements. Nordea joined ORX in 2010 and starting from Q2 2011 Nordea delivers risk loss data on a quarterly basis to ORX. The introduction of a new operational risk system further enables the two-tiered incident reporting process, by having loss reporting separated from the incident reporting. Business has the flexibility to adjust the incident reporting process to its specific need whereas Group loss reporting is done according to one standardised process set by GORC, in order to avoid capturing data which is not needed from a Group perspective, as well as ensuring compliance with ORX. Group loss

reporting is made by the risk and compliance officer, based on information from the initial incident, in order to ensure consistent quality in the process. The threshold levels for incidents are EUR 1,000 for minor incidents and EUR 20,000 for major incidents and losses classified as minor or major are reported in the same way. Incidents with no direct financial loss are still reported if there is a reputational, regulatory, process or other impact to it. Aggregated incident reports are included in regular risk reports to Group Risk Management and the Board Risk Committee, and key observations are included in the semi-annual report on operational risk.

Figure 6.1 shows incidents reported last 5 years combined (2007–2011) distributed by ORX event types.

#### 6.1.4 Operational risk appetite

The risk appetite framework for operational risk and compliance covers monitoring of the status of mitigating actions for top risks identified in the Group Risk Map, expected operational risk losses, reputational impact measured as the number of customer complaints, compliance with regulatory requirements as well as breaches of internal policies or external regulations.

# 6.2 Capital requirements for operational risk

The capital requirements for operational risk are calculated mainly 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 gross income for each business line. The capital requirements for operational risk for 2011 amounts to EUR 1,236m (EUR 1,176m). The capital requirements for operational risk is updated on a yearly basis.

Figure 6.1 Distribution of incidents reported



# 7. Securitisation and credit derivatives

Nordea's role in securitisation has been limited to that of being a sponsor of various schemes together with some limited trading on credit derivatives as described below. Nordea has not used securitisation as originator by having its loans or their risk transferred outside of Nordea.

Nordea is using Value-at-Risk modelling to calculate a new capital requirement for credit derivatives trading under the capital adequacy rules.

# 7.1 Introduction to securitisation and credit derivatives trading

EU directive (2006/48/EC) defines securitisation as a scheme where credit risk of underlying exposures is converted into marketable securities so that payments from these securities depend on the performance of the underlying exposures and a subordination scheme exists for determining how losses are distributed among investors to these securities. In a traditional securitisation, the ownership of these 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 entailed by these assets 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. In addition to becoming exposed to the credit risk of a single entity credit derivative trading often involves buying and selling protection for so called Collateralised Debt Oblication (CDO) tranches. These can be characterised as credit risk related financial products the risk of which depend on the risk of a portfolio of single entities ('reference portfo-

lio') as well as the so called subordination. Subordination defines the level of defaults in the reference portfolio after which further defaults will create a credit loss for the investor in the CDO tranche. Because hedging CDO tranches always involves a view how the correlation between the credit risk of single names evolves it has been customary to talk about correlation trading in this context. The market risk created by Nordea's correlation trading is 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 requirements are 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 2011, Nordea is sponsoring the following SPEs presented in table 7.1.

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 judgements about risks and rewards from the SPE and assesses its ability to make operational decisions for the SPE. 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 7.1 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 prefer-

Table 7.1 Special Purpose Entities where Nordea is the sponsor, 31 December 2011

			Accounting		Nordea's	Total
EURm		Duration	treatment	Book	investment <sup>1</sup>	assets
CMO Denmark A/S	Collateralised Mortgage Obligation	<1 years	Consolidated	Trading	2	2
Kalmar Structured Finance A/S	Credit Linked Note	<5 years	Consolidated	Trading	2	24
Viking ABCP Conduit	Receivables Securitisation	<5 year	Consolidated	Banking	1,092	1,157
Total					1,096	1,183

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

ences in terms of credit risk, interest rate risk, pre-payment risk, maturity etc. The SPE purchases a pool of mortgage bonds and reallocates the risks by issuing a tranched bond (CMOs). At year end 2011 the total notional of outstanding bonds was EUR 0m (EUR 26m) available to investors. Nordea offers a secondary market for bonds issued by CMO Denmark A/S. However, there were no positions in this category as of year-end of 2011. The RWA and capital requirement of these positions are included within the market risk framework of Nordea's trading book.

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 CDO. At the same time, Nordea purchases protection under similar terms from Kalmar which issues CLNs 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 outstanding CLNs in this category was EUR 23m (EUR 91m) at year end 2011.

Nordea holds CLNs issued by the SPE as part of offering a secondary market for the notes. The investment amounted to EUR 51m (EUR 25m) at year end 2011. 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 and funds 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 support of the purchase of the support of the purchase of the purchas

mum EUR 1,443m at year end 2011 (EUR 1,299m) out of which EUR 1,092m (EUR 948m) were utilised. There is no outstanding CP issue at year end 2011. The credit facility results in an RWA of EUR 697m, which is included within the credit risk framework of Nordea's banking book.

#### 7.3 Credit derivatives trading

Nordea acts as an active intermediary in the credit derivatives market, especially in Nordic 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 in 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 are then carried by the seller of protection.

Credit derivatives transactions create counterparty risk in similar manner to other derivative transactions. Counterparties in these transactions are typically subject to a financial collateral agreement, thus the exposure is on daily basis covered by collateral placements.

Table 7.2 and table 7.3 list the total outstanding volumes of credit default swaps and CDOs at the end of 2011, split by bought and sold positions.

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 7.2 Credit default swaps, 31 December 2011

	Total gross	
EUD	notional	notional
EURm	sold	bought
Single name CDS: Investment grade	5,978	5,743
Single name CDS: Non-Investment grade	3,644	3,388
Multi name CDS indices	19,095	19,276
Total	28,717	28,407

Table 7.3 Collateralised Debt Obligations (CDO) -Exposure (excl. NLP)<sup>1</sup>, 31 December 2011

Notionals EURm	Bought protection	Sold protection
CDOs, gross	1,575	2,267
Hedged exposures	1,394	1,394
CDOs, net <sup>2</sup>	181 <sup>3</sup>	8734
Of which:		
– Equity	114	223
– Mezzanine	65	101
- Senior	2	549

<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 218m (EUR 71m) and net sold protection to EUR 53m (EUR 80m). Both bought and sold protection are, to the predominant part, investment grade.

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

3) Of which investment grade EUR 181m (EUR 209m) and sub investment grade FIR 0m (FIR 4m)

Under the existing VaR approval the total capital requirement against the correlation trading portfolio was EUR 73.4m as of Q4 2011 when the total capital requirement for market risk was EUR 652m.

The risk positions in correlation trading are integrated in Nordea's consolidated market risk management and are as such subject to:

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

EUR 0m (EUR 4m).

4) Of which investment grade EUR 873m (EUR 922m), subinvestment grade EUR 0m (EUR 0m) and not rated EUR 0m (EUR 0m)

# 8. Liquidity risk and funding

Nordea has during 2011 continued to benefit from its focus on prudent liquidity risk management, reflected by a diversified and strong funding base. Nordea has had access to all relevant financial markets and has been able to actively use all its funding programmes. Nordea issued approximately EUR 32bn in long-term debt in 2011 of which approximately EUR 18bn in the Swedish, Finnish and Norwegian covered bond markets.

# **8.1 Liquidity risk management 8.1.1 Governance of liquidity risk**

Group Treasury is responsible for pursuing the Group's liquidity strategy, managing the liquidity in the Group and for compliance with the Group wide limits set by the Group Board and by the Risk Committee. Furthermore Group Treasury develops the liquidity risk 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 Management of liquidity 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. Nordea's liquidity management and strategy 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 the Group's four domestic markets in the form of a strong and stable retail customer base and the variety of funding programs. Funding programs are both short-term (US Commercial Papers, European Commercial Papers, Commercial Papers, Certificates of Deposits) and long-term (Covered bonds, European Medium Term Notes, Medium Term Notes) in diverse currencies. Foreign exchange risk is covered.

In table 8.1 the funding sources are presented. As of the end of 2011, the total volume utilised under short-term programmes was EUR 66.8bn with the average maturity of 0.2 years and the total volume under long-term programmes was EUR 113.1bn with the average maturity of 6.4 years. During 2011, the volume of long-term programmes increased by EUR 16.3bn and the volume of short-term programmes increased by EUR 10.8bn. Nordea publishes periodically information on the liquidity situation of the Group to remain trustworthy at all times. See tables 8.2 for the maturity structure of the balance sheet.

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. Stress testing framework includes also Survival horizon metrics (see below), which represents a combined liquidity risk scenario (idiosyncratic and market wide stress).

## 8.1.3 Measurement of liquidity risk

The liquidity risk management focuses on both short-term liquidity risk and long-term structural liquidity risk. In order to manage short-term funding positions, Nordea measures the funding gap risk, which expresses the expected maximum accumulated need for raising liquidity in the course of the next 30 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 consists of central bank eligible high-grade liquid securities held by Group Treasury that can be sold or used as collateral in funding operations.

During 2011 Basel Liquidity Coverage Ratio likewise Survival horizon metrics was introduced. In alignment with Basel, the Board of Directors has set a limit for a minimum survival of 30 days. The survival horizon metrics is composed of Liquidity Buffer and Funding gap risk cash flows, but includes even expected behavioural cash flows from contingent liquidity drivers. Survival horizon defines the short-term liquidity risk appetite of the Group (see section 8.1.4).

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

Table 8.1 Funding sources, 31 December 2011

Liability type	Interest rate base	Average maturity	EURm
Deposits by credit institutions			
- shorter than 3 months	Euribor etc	0.1	53,440
– longer than 3 months	Euribor etc	4.9	1,876
Deposits and borrowings from the public			
– Deposits on demand	Administrative	0.0	116,485
- Other deposits	Euribor etc	0.2	73,606
Debt securities in issue			
<ul> <li>Certificates of deposits</li> </ul>	Euribor etc	0.2	35,459
<ul> <li>Commercial papers</li> </ul>	Euribor etc	0.1	31,381
<ul> <li>Mortgage covered bond loans</li> </ul>	Fixed rate, Market based	8.0	76,495
– Other bond loans	Fixed rate, Market based	3.0	36,615
Derivatives			167,390
Other non-interest-bearing items			50,119
Subordinated debentures			
<ul> <li>Dated subordinated debenture loans</li> </ul>	Fixed rate, Market based	6.7	3,863
- Undated and other subordinated debenture loans	Fixed rate, Market based		2,640
Equity			26,118
Total (total liabilities and equity)			675,487
Liabilities to policyholders			40,715
Total (total liabilities and equity) including Life insurance	e operations		716,202

Table 8.2 Maturity analysis for assets and liabilities, 31 December 2011

EURbn	<1 months	1–3 months	3–12 months	1–2 years	2–5 years	5–10 years	>10 years	Not specified	Total
Cash and balances from									
central banks	41.3								41.3
Loans to the public	73.8	8.4	21.1	21.0	59.0	60.0	93.9		337.2
Loans to credit institutions	11.2	1.0	0.9	0.4	0.6	0.2			14.3
Interest-bearing securities incl. Treasury bills	74.9							25.2	100.1
Other assets incl. Derivatives								223.3	223.3
Total assets	201.1	9.4	22.0	21.4	59.6	60.2	93.9	248.5	716.2
Deposits and borrowings from the public	24.8	10.2	11.3	1.2	0.7	0.4		141.5	190.1
Deposits by credit institutions	46.6	6.8	1.4	0.1	0.1	0.3			55.3
Debt securities in issue	21.7	35.5	22.9	26.7	43.8	13.2	16.1		180.0
- of which CDs & CPs	21.4	35.0	8.6	1.7					66.8
– of which covered bonds	0.0	0.0	6.7	17.9	28.7	7.3	16.0		76.5
– of which other bonds	0.2	0.5	7.6	7.1	15.0	5.9	0.2		36.6
Subordinated liabilities			0.6			3.2		2.6	6.5
Other liabilities incl. Derivatives								258.2	258.2
Equity								26.1	26.1
Total liabilities and									
equity	93.0	52.6	36.2	28.0	44.6	17.2	16.1	428.5	716.2

<sup>Maturity analysis is based on both contractual and behavioural information of remaining maturity of items.
Amortisation are included in time bucket corresponding the estimated cash flow date.
Time bucket 'Not specified' includes items which are lacking specific timing of cash flows.</sup> 

Table 8.3 Liquidity buffer<sup>1</sup> composition, 31 December 2011

	Currency d	listribution, m	narket values i	n EURm	
Type of asset	SEK	EUR	USD	CCY	Sum
1. Cash and balances with central banks	152	19,871	11,220	10,061	41,305
2. Balances with other banks	0	0	0	0	0
3. Securities issued or guaranteed by sovereigns, central banks or multilateral development banks <sup>2</sup>	2,265	6,604	2,132	9,763	20,764
4. Securities issued or guaranteed by municipalities or other public sector entities $^{2}$	238	161	0	0	399
Covered bonds <sup>2</sup> 5. – Securities issued by other bank or financial institute	7,754	7,457		8,194	23,404
6. – Securites issued by the own bank or related unit	59	4,403		10,787	15,249
7. Securites issued by non financial corporates <sup>2</sup>					
8. Securites issued by financial corporates, excluding covered bonds <sup>2</sup>	495	921	1,926	190	3,532
9. All other securites <sup>3</sup>	0	93	0	5	98
Total Liquidity reserve	10,962	39,512	15,278	39,000	104,751
10. Other securities eligible for central bank collateral (+) and cash and balances above (-)	286	-19,800	-11,027	-10,196	-40,738
Total Liquidity buffer (Nordea definition)	11,247	19,711	4,251	28,804	64,013

<sup>1)</sup> According to Swedish Bankers' Associations definition 2011-10-07

primarily comprise retail loans, other loans with a remaining term to maturity longer than 6 months and committed facilities. The CEO in GEM 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 appetite

Board defines the liquidity risk appetite by setting limits for applied liquidity risk measures. The most central measure is Survival horizon, which defines the risk appetite by setting the minimum survival of 1 month under institution specific and market wide stress scenario with limited mitigation actions.

# 8.2 Liquidity risk and funding analysis

The short-term liquidity risk has been held at moderate levels throughout 2011. The average funding gap risk, i.e. the average expected need for raising liquidity in the course of the next 30 days, has been EUR -5.8bn (EUR -10.2bn). Nordea's liquidity buffer has been in the range EUR 51.3 – 65.0bn (EUR 47.3 – 61.1bn) throughout 2011 with an average of EUR 59.3bn (EUR 52.7bn). Nordea's liquidity buffer is highly liquid, consisting of only central bank eligible securities held by Group Treasury as shown in table 8.3. Survival horizon has been in range of EUR 8.3 – 50.9bn throughout 2011. This expresses the excess liquidity for set limit of 30 days. The aim of always maintaining a positive net balance of stable funding has been comfortably achieved throughout 2011. The yearly average for the net balance of stable funding was EUR 48.4 (EUR 33bn). The net balance of stable funding is shown in table 8.4.

Table 8.4 Net balance of stable funding, 31 December 2011 Stable liabilities and equity

Liability type	EURbn
<b>Equity and Core Liabilities</b>	
Deposits and borrowings from the public	151.3
Equity	26.1
Structural funding	
Long term deposits from credit institutions	0.4
Long CD and CP	4.7
Long term bonds issued	89.9
Other structural funding	2.4
Total stable liabilities	274.8
Stable long-term assets	
Asset type	
Core assets	
Loans to the public	205.6
Long term loans to credit institutions	4.5
Illuiquid assets	6.1
Total stable long-term assets	216.3
Net balance of stable funding (NBSF)	58.5

<sup>2) 0-20 %</sup> Risk weight

<sup>3)</sup> All other eligible & unemcumbered securites held by Treasury.

# 9. Risk and capital in the life and pension operation

The nature of life insurance leads Nordea's life and pension operation to take risks that are quite different to those addressed in the banking operation. However, the main risks in Nordea's life and pension operation are market risks and life insurance risks.

#### 9.1 Risk management system and governance

The Nordea Group has issued a Market Risk Policy, where the direct exposure from market risk to Nordea's own Profit and Loss (P/L) account as well as asset and liability market risks are included.

The life and pension operation has its own risk management function, which monitors market risk and measures solvency and financial buffers levels, risk limit utilisation and asset and liability management (ALM) related market risks. On a weekly basis this is reported for the legal entities and consolidated for the life and pension operation. Market risk for the separated equity capital of the legal entities in the life and pension operation is estimated and reported daily by Group Market Risk Management (GMRM).

Solvency ratios for the consolidated life and pension operation (Nordea Life Holding AB) are measured monthly and reported to regulators on a quarterly basis. The ALM position is reported weekly to senior management in the Nordea Group, and the ALM related P/L risk and the market risk of the separated shareholders equity capital are reported regularly to GMRM.

#### 9.2 Asset and liability management

The ALM aims at optimizing the rate of return to policy-holders given a level of risk, while creating long-term value of the life and pension operation.

The "ALM square", which has been the central risk and capital management concept since 2003, has been adopted as a mindset, meaning that the elements of value and risk given by the four objectives (P/L, economic value & capital, legal requirements and costumers) are taken into consideration when making risk management decisions in the life and pension operation.

Table 9.1 shows the assets and liabilities as of 31 December 2011 on an IFRS basis. The development of assets and liabilities is determined mainly by premium in- and outflow and the investment result.

# 9.3 Key risks in the life and pension operation 9.3.1 Market risk

The market risk is defined as the Profit Loss as a result of movements in market rates and prices (e.g. interest and FX rates, equity and commodity prices, volatilities) that affect

the value of Nordea's positions. Market risk is measured according to two approaches:

- A scenario-based risk measure is used to measure the risk Nordea faces if the return on assets were to fall short of the guaranteed yields to policy holders.
- Value-at-Risk is used to measure the market risk in the separated equity capital investment. See chapter 5 for further details.

#### 9.3.2 Life insurance risk

Life insurance risk is defined as a Profit Loss from changes in mortality, longevity and disability rates. The sensitivity on the financial accounts from these risks is shown in table 9.2.

The sensitivity to movement in interest rates has an effect on Nordea's own account due to the current level of the financial buffers. The relative higher effect on policyholders is due to the fact that the Unit Linked business is included within the sensitivities, which was not the case in 2010. This furthermore explains the increased sensitivity to a decrease in equities (share prices).

#### 9.3.3 Investment risk/return

Investment return performance is relevant for the Traditional portfolio and to a certain extent for the New Traditional portfolio, because Nordea is carrying the risk and decides upon the asset allocation in a strategic as well as tactical perspective.

All figures in table 9.3 are consolidated from the different legal life companies. The assets under management

Table 9.1 Assets and liabilities, 31 December 2011

Assets	2011 EURm	2010 EURm
Investment properties	3,523	3,506
Shares	13,730	11,376
Alternative investments	2,938	3,077
Debt Securities – At fair value	20,560	19,368
Debt Securities – HtM	2,282	2,256
Deposits and treasury bills	4,639	4,916
Other assets	1,927	1,750
Total assets	49,599	46,249
Liabilities	2011 EURm	2010 EURm
Traditional provisions	23,572	21,819
Collective bonus potential	1,311	1,791
Unit Linked provisions	4,899	5,202
Investment contracts	10,226	9,339
Other insurance provisions	706	616
Other liabilities	6,974	5,579
Shareholders equity	1,388	1,381
Subordinated loans	523	522
Total liabilities	49,599	46,249

Table 9.2 Life insurance risk and market risk in the life insurance operations

	31 Dec	2011	31 Dec 2010		
Sensitivites EURm	Effect on policyholders	Effect on Nordea's own account	Effect on policyholders	Effect on Nordea's own account	
Mortality – increased living with 1 year	-148	-92	-133	-73	
Mortality – decreased living with 1 year	227	18	190	8	
Disability – 10% increase	-34	-7	-28	-5	
Disability – 10% decrease	34	7	28	5	
50 bp increase in interest rates <sup>2</sup>	-208	83	-78	0	
50 bp decrease in interest rates <sup>2</sup>	200	-98	32	0	
12% decrease in all shareprices <sup>2</sup>	-713	-82	-457	-6	
8% decrease in property value	-194	-46	-262	-8	
8% loss on counterparts <sup>1</sup>	-39	0	-33	0	

<sup>1)</sup> Loss on counterparts is in 2011 defined as counterparts risk on derivatives. The figures for 2010 is adjusted to be comparable. 2) Effect on policyholders includes from 2011 Unit Link and Investment contracts.

Table 9.3 Investment return, traditional life insurance

	31 Dec 2011		31 Dec 2010		
EURm	Assets under man- agement	Investment return	Assets under man- agement	Investment return	
Interest bearing securities and deposits	19,100	7.4%	19,805	4.9%	
Shares	5,416	-4.4%	3,062	8.1%	
Alternative investments	2,867	4.7%	3,058	15.8%	
Investment property	3,182	4.9%	3,408	5.0%	
Total return	30,565	4.8%	29,333	6.3%	

are affected by the investment return and the in- and outflows in the different asset classes. The low interest rate environment and the turbulent financial markets during 2011 have resulted in a total investment return for the traditional business of 4.8%.

#### 9.3.4 Mitigation of guaranties

For the guaranteed part of the policies alone (0% and above) the average guarantee decreased from 2.34% in 2010 to 2.26% in 2011. The strong sales in Unit Linked policies (no guarantees) in 2010 have continued with gross written premiums further increasing by 20% during 2011.

# 9.4 Capital management and solvency position 9.4.1 Development of financial buffers

The financial buffers express the policyholders' potential for bonus on top of the guaranteed yield for the Traditional portfolio. For the shareholders, the financial buffers are important as they offer P/L protection against insufficient investment return, crediting and/or low return environments.

For the life and pension operation a moderate financial buffer level is a prerequisite to have a stable P/L due to the mostly fee based business models. However, at low financial buffer levels, higher P/L volatility is expected.

The financial buffer developed negatively during 2011 as shown in table 9.5. The reduction in the financial buffer has primarily been driven by the falling interest rate levels. This has had less of an effect in Sweden due to the introduction of a new discount curve for calculating liabilities. In addition, the Danish business has decided to use the new FSA liability discount curve introduced in December 2011 which is binding until the introduction of Solvency II.

Table 9.4 Insurance provisions (technical provisions) and provision on investment contracts divided into guarantee levels (technical interest rates)

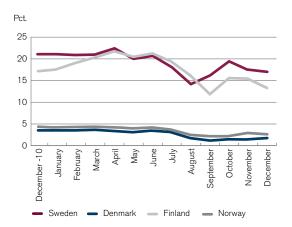
31 Dec 2011 EURm	non	0 pct.	0 to 3 pct.	3 to 5 pct.	Over 5 pct.	Total liabilities
Technical provision	10,868	3,647	13,627	10,380	176	38,697
31 Dec 2010						Total
EURm	non	0 pct.	0 to 3 pct.	3 to 5 pct.	Over 5 pct.	liabilities
Technical provision	11,090	3,267	11,664	10,169	170	36,360

Insurance claims provisions are EUR 429m in 2011 and EUR 434m in 2010.

**Table 9.5 Financial buffers** 

	Financial buf	fers	% of guaranteed liabilities		
EURm	31 Dec 2011	31 Dec 2010	31 Dec 2011	31 Dec 2010	
Denmark	254	482	1.7%	3.5%	
Norway	133	199	2.6%	4.3%	
Sweden	446	465	17.0%	21.0%	
Finland	478	645	13.3%	17.2%	
Total	1,311	1,791	5.1%	7.3%	

Figure 9.1 Financial buffers



## 9.4.2 Market Consistent Embedded Value (MCEV)

The Market Consistent Embedded Value model (MCEV) is a stochastic dividend stream model projecting the future developments in a large number of scenarios through Monte Carlo simulation. The model calculates the dividend stream to the shareholder in each scenario and derives the economic value (EV) for the shareholder in each scenario by finding the net present value of the dividend stream by discounting, using discount factors relevant for the specific scenario. Having run a large number of Monte Carlo simulations and knowing the EV in each scenario, the model draws up the probability distribution of EV for the company. The MCEV is the simple mean of the scenario-specific EVs.

The MCEV is used to reflect the value of the life and pension operation of Nordea.

During 2011 the life and pension operation experienced a decrease in the MCEV value of EUR 941m compared to 2010. The development is shown in table 9.6. The driver of the development has been the significant decrease in long interest rates that has put pressure on the predicted ability to generate future profits in some of the Traditional portfolios. Stable inflow of profitable new business sales contributed by EUR 189m to MCEV in 2011.

A more detailed description of the movements is shown in table 9.7. The major negative effect is coming from long interest rates that have decreased significantly during 2011 (up to –135 basis points), thereby having a negative impact on the financial outlook. This has severe implications for the Traditional products in particular in Denmark. New legislation and regulatory changes in Denmark, Norway and Poland has a combined effect of approximately EUR –165m ("Other"). The remaining part of "Other" is affected by the negative movement in the financial buffers as illustrated in table 9.5 and the positive period earnings.

The MCEV sensitivities are set out in table 9.8. The high Danish interest rate and equity sensitivities is due to both the very low financial outlook and the new contribution principles that were introduced at the beginning of 2011, with a slight offset from the introduction of the new Danish FSA liability discount curve.

## 9.4.3 Solvency capital and solvency ratio

The solvency ratio as at the end of 2011 is 137% with a solvency balance of EUR 455m. The improvement of EUR 154m in the solvency balance is mainly driven by increased tier 1 capital of EUR 210m. The consolidated solvency position is illustrated in table 9.9.

**Table 9.6 MCEV development** 

		31 Dec 2011	31 Dec 2010			
EURm	Traditional	Unit Linked	Total	Traditional	Unit Linked	Total
Denmark	250	171	421	1,000	155	1,155
Finland	393	406	800	464	418	883
Norway	630	191	821	728	124	852
Poland	29	169	198	11	259	271
Sweden	42	434	475	53	443	495
Total	1,343	1,371	2,714	2,256	1,399	3,655

# **Table 9.7 MCEV movement analysis**

EURm	MCEV 2010Q4	New Business	Financial effects	Expected earnings	Other	FX Effect	MCEV 2011Q4
Denmark	1,155	46	-616	27	-192	1	421
Finland	883	49	-21	30	-140	0	800
Norway	852	31	-96	33	-6	7	821
Poland	271	27	-8	16	-83	-26	198
Sweden	495	36	-88	18	12	3	475
Total	3,655	189	-830	124	-408	-16	2,714

# Table 9.8 MCEV sensitivity analysis

Assumption change	Scenario	Denmark	Finland	Norway	Poland	Sweden	Total
Yield curve change	IntRates –100bp	-229.5%	-7.4%	-23.4%	-2.8%	14.9%	-44.7%
	IntRates –50bp	-98.3%	-3.8%	-9.2%	-1.2%	6.6%	-19.5%
	IntRates +50bp	69.3%	3.8%	5.2%	0.3%	-6.0%	12.2%
	IntRates +100bp	119.1%	7.4%	7.7%	0.4%	-11.5%	21.4%
Equity return 1st year	EquityReturn +10pct	14.6%	11.9%	5.4%	2.7%	4.0%	7.7%
	EquityReturn –10pct	-21.9%	-12.1%	-6.1%	-2.7%	-4.0%	-10.7%
Admin costs (relative change)	AdminCost +10pct	-5.7%	-1.2%	-3.5%	-1.8%	-4.0%	-3.7%
	AdminCost –10pct	6.0%	1.2%	3.4%	1.8%	4.0%	2.1%
Surrender rates (relative change)	Surrender +10pct	8.8%	-0.9%	-0.9%	-3.8%	-3.2%	-0.5%
	Surrender –10pct	-9.8%	0.9%	1.0%	4.1%	3.4%	-1.2%
Pay-up rates (relative change)	Lapse +10pct	-0.3%	-0.3%	-0.6%	-1.2%	-1.1%	-1.4%
	Lapse –10pct	0.1%	0.3%	0.6%	1.3%	1.2%	-0.2%

Table 9.9 Solvency I Capital / Ratio

EURm	2011	2010
Tier 1 capital	1,165	955
Tier 2 capital	523	522
Solvency capital	1,688	1,477
Solvency requirement	-1,233	-1,176
Solvency balance	455	301
Colven ev matic	127	126
Solvency ratio	137	126

# 10. ICAAP and internal capital requirement

The current financial turmoil has increased the focus on banks' internal capital evaluation processes and their capability to assess the solvency need to cover losses and other cyclicality effects. During 2011 financial supervisors and central banks have performed several stress tests and capital reviews of the Nordea Group and its peers. The results of the EBA's capital review exercise performed during the autumn 2011, shows that the Nordea Group is well capitalised.

#### **10.1 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 requirements reflecting the risk appetite of the bank.

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, in both the business area and legal entity dimensions. Stress tests are an important driver of the increased risk awareness, looking at capital and risk from a firm-wide perspective or, on an ad-hoc basis, on more specific areas or segments. The process includes a regular dialogue with Nordea's supervisors, rating agencies and other external stakeholders with respect to risk and capital management, measurement and mitigation techniques used within Nordea.

The capital ratios and capital forecasts for the Nordea Group 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, GEM and the Board of Directors on group, subgroup as well as legal entity level. On an annual basis the capital requirements and adequacy is thoroughly reviewed and documented in Nordea's ICAAP report, which ultimately is decided and signed off by the Board of Directors.

#### 10.1.1 Capital planning and capital policy

The capital planning process shall ensure that Nordea Group and its legal entities have sufficient capital to meet minimum regulatory requirements, support the credit rating, the growth and strategic options. The process includes a forecast of the development of the capital requirements, (e.g. the pillar I and pillar II capital requirements), the available capital (e.g. core tier 1, tier 1 and tier 2 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 the Nordea Group 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 as well as the introduction of new capital adequacy regulations.

Nordea's capital policy constitutes a major component of Nordea's ICAAP and as such has a key role in the capital planning. Nordea expects to review the capital policy in light of new regulatory proposals and market perception during 2012. To support the capital management objectives, Nordea sets target capital ratios over a business cycle in the capital policy. The current capital position is described in chapter 3.

Additional policies are in place reflecting Nordea's target capital allocation in terms of core tier 1, tier 1 hybrid instruments and tier 2 capital. The policies also define the internal process for combining the capital policy and capital planning to ensure that Nordea is adequately capitalised and that capital decisions are made in a timely manner.

The Asset and Liability Committee is responsible for evaluating the capital plans and prepares proposals for decision by the CEO in GEM if needed.

## 10.1.2 Conclusion of ICAAP and SREP

Nordea's capital levels have been and continue to be adequate to support the risks taken from an internal perspective as well as from the perspective of supervisors. Heading into 2012, Nordea will closely follow the development of the new capital requirement regime as well as maintain its open dialogue with various supervisory authorities.

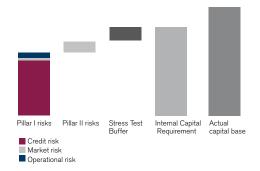
# 10.2 Internal capital requirements

Nordea's internal capital requirements are 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 requirements as shown in chapter 3.

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 stress tests both pillar I and pillar II risks and the stress tests are considered when determining Nordea's internal capital requirements. By considering the stress test results in the assessment of internal capital requirements the pro-cyclical effects inherent in the risk adjusted capital calculations of the economic capital and IRB approaches are addressed. Figure 10.1 below shows the described buildings blocks used in Nordea's internal capital requirements.

Figure 10.1 Illustration of Nordea's internal capital requirement



#### 10.2.1 Economic capital

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

- Credit risk
- Market risk
- Operational risk
- Business risk
- Life insurance risk

Pillar II of the of the Basel 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 and economic capital also includes risks in the insurance business of the group.

As of end 2011 the total economic capital equals EUR 17.7bn and figure 10.2 shows the economic capital distributed by business area and risk type. Notably the credit risk accounts for 70% of the total economic capital. EC increased less than EUR 0.2bn during the year. The main drivers were an increase in life risk due to model changes and in market risk, offset partly by a decrease in credit risk from improved credit quality.

# The economic capital framework

As a consequence of the financial turmoil and the upcoming regulations, the focus has shifted towards building capital analyses 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 measurement 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.

Figure 10.2 EC distributed by risk type

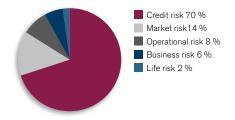
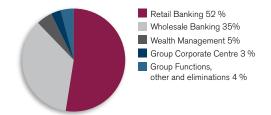


Figure 10.2 EC distributed by customer area



1) In comparison to restated EC following changes in the EC framework reflecting alignment towards regulatory framework.

The alignment provides a framework that links capital allocation to Nordea's internal capital requirements and targets, as described in Nordea's capital policy, and supports capital efficiency within the Group.

#### 10.2.2 Stress tests

During 2011 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, the Nordea Group has been part of external stress tests and capital review exercises performed by financial supervisors, central banks and equity analysts. Nordea participated in the EU-wide stress test as well as the recapitalisation exercise for European banks which was coordinated by the European Banking Authority (EBA). The results of the EBA stress test as well as the recapitalisation exercise clearly demonstrated that Nordea is well capitalised.

As a part of the ICAAP and the capital planning process, firm wide stress tests are used as an important risk management tool in order to determine how severe unexpected changes in the business and macro environment will affect the capital need. The stress test reveals how the capital need varies during a stress scenario, where the income statements, balance sheet, regulatory capital requirements, economic capital and capital ratios are impacted.

Nordea conducts a comprehensive stress test at least 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 performs 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.

# 10.2.2.1 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 the Nordea Economic Research division in each Nordic country. In addition to the stress scenarios Nordea uses its rolling finan-

cial forecast as a base case and the difference between the stressed scenarios and the base case scenario is used to determine the stress effect and the additional capital need.

While the annual stress test is based on comprehensive macro-economic scenario which involves 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 the 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 10.1.

#### 10.2.2.2 Calculation

The stressed figures and parameters from the scenario are used to calculate the effects 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 requirements 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 10.3 for the calculation process used in the stress test framework.

#### 10.2.2.3 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 GEM and the Board of Directors. A similar governance process is used for the sub groups and legal entities.

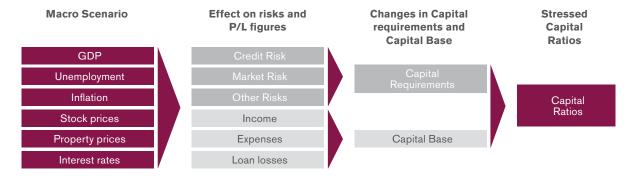
The results of the stress tests should support senior management's understanding of the implications of the current capital strategy given potential market shocks. Based on this information senior management is able to ensure that the Group holds enough capital against the risk of stressed or similar 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 requirements 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.

**Table 10.1 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 com- missions from activities in Asset Man- agement.
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.

Figure 10.3 Calculation process



# 11. Capital base

The quality of Nordea's capital base has been strengthened during 2011 following strong profit generation. Nordea has redeemed and issued tier 2 instruments during the year and had a limited portion of hybrids equal to 9% of tier 1 capital.

#### 11.1 Capital base definition

Capital for regulatory purposes is determined in accordance with the CRD and the Swedish legislation, while equity as reported in the balance sheet is based on applicable accounting standards. Balance sheet equity is the core capital in the capital base and should absorb losses so that the banks creditors will be safeguarded.

The size of the capital base must as a minimum correspond to the sum of the capital requirements for credit, market and operational risks. Only capital contributed by companies within the financial group and by the consolidated accounts is included in the capital base. Items included in the capital base should without restrictions or time constraints be available for the institution to cover risk and absorb potential losses.

The capital base has improved following strong profit generation during 2011. Profit for the year is included in the core tier 1 capital after deductions for proposed dividend. A summary of items included in the capital base is available in table 11.2.

The total capital base (referred to as own funds in the CRD) is the sum of tier 1 capital (called original own funds in the CRD) and tier 2 capital (called additional own funds in the CRD) after deductions and excluding capital related to insurance companies. The two main components in the capital base are equity in the balance sheet and subordinated debt including hybrid capital loans.

Related to the new CRD III requirements, in regards to additional fair value adjustments, Nordea has well established procedures for evaluating instruments to fair value, aligned with current accounting requirements. Some additional fair value adjustments, will be further considered when technical advice has been given by the regulators.

Different ratios are used based on different capital base items, such as:

- The core tier 1 capital ratio is calculated by dividing the core tier 1 capital excluding hybrid capital with RWA.
- The tier 1 capital ratio is calculated by dividing the tier 1 capital with RWA.
- The capital ratio is calculated by dividing the capital base with RWA.
- The capital adequacy quotient is calculated from the capital base in relation to the capital requirements.

Below is a detailed description of the items included in the capital base.

#### 11.2 Core tier 1 capital and tier 1 capital

Core tier 1 capital is defined as eligible capital including eligible reserves and net of regulatory required deductions done directly to the tier 1 capital. The capital recognised as core tier 1 capital holds the ultimate characteristics for loss absorbance defined from a going concern basis and are the most subordinated claim in terms of liquidation. The tier 1 capital is defined as core tier 1 capital and capital of the same or close to the character of eligible capital and eligible reserves. The tier 1 capital can include a limited part (up to 50% of tier 1 dependent on terms of instruments) of hybrid capital loans. Deductions mandatory for tier 1 capital will accordingly also be required as deduction in the defined core tier 1 capital.

#### 11.2.1 Eligible capital

Paid up capital is equal to the share capital contributed by shareholders.

#### 11.2.2 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.

# 11.2.3 Hybrid capital loans subject to limits

The requirement for including undated loans in tier 1 capital is restricted and repurchase can normally not take place until five years after the loan originally was 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 Swedish 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. The upper limit for including hybrid capital in the tier 1 capital is under current regulation 50% of the tier 1 capital after relevant deductions.

Currently the hybrid capital loans included in the capital base of the Nordea Group constitute 9% of the tier 1 capital.

EURm	31 December 2011	31 December 2010
Balance sheet quity	26,120	24,538
Adjustment NLP & AFS	<b>–</b> 757	-782
Subtotal	25,363	23,756
Dividend	-1,048	-1,168
Goodwill	-2,093	-2,098
Intangible assets	-893	- <del>780</del>
Deferred taxes	-169	-267
Cash Flow hedges	-123	
Shortfall deduction (50%)	-243	-234
Deduction for investments in credit institutions (50%)	-117	-106
Core tier 1 capital	20,677	19,103
Table 11.2 Summary of items included in capital base EURm	31 December 2011	31 December 2010
Calculation of total capital base		
Original own funds		
Paid up capital	4,047	4,043
Share premium	1,080	1,065
Eligible capital	5,127	5,107
Reserves	17,478	15,979
Minority interests	8	10
Income from current year	2,627	2,658
Eligible reserves	20,113	18,648
Tier 1 capital (before hybrid capital and deductions)	25,240	23,755
Hybrid capital loans subject to limits	1,964	1,946
Proposed/actual dividend	-1,048	-1,168
Deferred tax assets	-169	-266
Intangible assets	-2,986	-2,878
Deductions for investments in credit institutions	-117	-106
IRB provisions shortfall (–)	-243	-234
Deductions from original own funds	-4,563	-4,652
Tier 1 capital (net after deduction)	22,641	21,049
– of which hybrid capital	1,964	1,946
– of which core tier 1 capital	20,677	19,103
Additional own funds		
Securities of indeterminate dur. and other instr.	723	710
Subordinate loan capital	3,197	4,593
Other additional own funds	4	2
Tier 2 capital (before deductions)	3,924	5,305
Deductions for investments in credit institutions	-117	-106
IRB provisions excess (+) / shortfall (-)	-243	-234
Deductions from original additional own funds	-360	-340
Tier 2 capital (net after deductions)	3,564	4,965
Participations hold in insurance undert., reinsurance	-1,211	-1,147
D	157	122

-156

24,838

-132

24,734

Pension assets in excess of related liabilities

Total capital base

#### 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 based on the proposal from the Board to be decided at the annual general meeting of shareholders.

#### Deferred tax assets

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

#### Intangible assets

The significant part of deducted intangible assets contains goodwill and other intangible assets related 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% should be deducted from tier 1 capital and 50% should be deducted from tier 2 capital.

## IRB provisions shortfall

In accordance with the Swedish legislation, the differences between actual IRB provision (EUR 2.2bn) made for the related exposure and expected loss (EUR 2.7bn) are adjusted for in the capital base. The negative difference (when the expected loss amount is larger than the provision amount) is defined 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 transition rules calculations of the shortfall is under Swedish regulation deducted from the RWA to be neutralised in a Basel I perspective. A positive difference (provisions exceeding expected loss) can be included in tier 2 capital with certain limitations (maximum 0.6% of IRB RWA).

## Cash flow hedges

Recognised changes in the value of equity arising from cash flow hedges are not eligible for inclusion in the capital base. In table 11.1 the deduction of EUR 123m is disclosed, however in table 11.2 the deduction have been done in eligible reserves.

# 11.2.4 Changes in tier 1 capital 2011

The core tier 1 capital has increased about EUR 1.6bn and the main contribution is the profit for the year (excluding proposed dividend) of EUR 1.6bn. Minor changes have been done in the deductions. During 2011 Nordea has not issued any new hybrid loans nor have any contract been

called. As of year-end 2011, Nordea holds EUR 2.0bn in hybrid capital loans (included as tier 1 capital). Table 11.3 shows the booked outstanding amounts of hybrid capital loans included in the tier 1 capital.

#### 11.3 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 cannot 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.

#### 11.3.1 Tier 2 capital

The tier 2 capital is mainly related to subordinated debt and 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 case of a default or bank-ruptcy situation. Under such conditions, the holder of the subordinated loan would be repaid after other creditors, but before shareholders. The subordinated debt might within certain levels of losses prevent the institution to go into liquidation.

The share of outstanding loan amount possible to include in the tier 2 capital related to dated loans is reduced if the remaining maturity is less than five years. Currently only one loan is subject to reduction. Outstanding amount in the specific issue is deducted by 20% for each year.

As of year-end 2011, Nordea holds EUR 3.2bn in dated subordinated loans and EUR 0.7bn in undated subordinated loans.

Table 11.3 shows the booked outstanding amounts of hybrid capital loans included in the tier 1 capital and subordinate loans included in the tier 2 capital. Call date is where the issuer has the legal right to redeem outstanding loan amounts according the terms of agreement. The loans and the principles for time-reductions follow Swedish legislation. The book value in the table can deviate from capital amounts used in the capital base due to swap arrangements and adjustments for maturities.

### 11.3.2 Other additional funds

Other additional funds consists 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 has no significant holdings in this category and have only a minor impact in the tier 2 capital.

Table 11.3 Dated and undated loans Dated loans, tier 2

		Capital base				
Issuer	Book value EURm	31 December 2011	Start	Maturity	Call date	Step-up
Nordea Bank AB	618.0	0.0	02	Nov 12		N
Nordea Bank AB	956.6	956.6	11	May 21		N
Nordea Bank AB	499.0	499.0	08	Sep 18	Sep 13	Y
Nordea Bank AB	995.3	995.3	10	Mar 20		N
Nordea Bank AB	745.5	745.5	10	Mar 21		N
Total Dat.loans	3,814.6	3,196.6				_

#### Undated loans, tier 2

Issuer	Book value EURm	Capital base 31 December 2011	Start	Maturity	Call date	Step-up
Nordea Bank Norway ASA	154.6	154.6	86	n/a	May 121	N
Nordea Bank Finland Plc	358.8	468.2	04	n/a	Jul 14	Y
Nordea Bank Finland Plc	99.8	99.8	99	n/a	Feb 29	Y
Total Und.tier 2	613.1	722.6				

#### Undated loans, tier 1

		Capital base	_			_
Issuer	Book value EUR	31 December 2011	Start	Maturity	Call date	Step-up
Nordea Bank AB	381.9	383.3	09	n/a	Mar 15	Y
Nordea Bank AB	381.9	381.9	09	n/a	Mar 15	Y
Nordea Bank AB	463.7	481.4	05	n/a	Apr 15	Y
Nordea Bank AB	199.6	144.4	05	n/a	Mar 35	Y
Nordea Bank AB	99.8	73.5	05	n/a	Oct 35	Y
Nordea Bank AB	500.0	500.0	04	n/a	Mar 12 <sup>1</sup>	N
Total Und.tier 1	2,026.8	1,964.5				
<b>Grand Total</b>	6,454.6	5,883.7				

<sup>1)</sup> First call date has passed.

## 11.3.3 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% should be deducted from tier 1 capital and 50% should be deducted from tier 2 capital. (See table 2.1 for specification of associated companies).

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

The differences between EL and provision made for the related exposure are adjusted for in the tier 2 capital, see section 11.2.4 for further explanation.

## 11.3.4 Changes in tier 2 capital 2011

During the year, Nordea has redeemed dated subordinated loans to an amount of EUR 2.2bn. and issued EUR 1.0bn in tier 2 subordinated loans. The deduction from the shortfall has increased during the period.

# 11.4 Deductions from the total capital base Participations hold in insurance undertakings

By a transition rule in effect until end of year 2012, participations hold in insurance undertakings is deducted from the total capital base, meaning that the deduction should not affect the tier 1 capital. After year 2012, half of the amount should be deducted from tier 1 capital. There has been a minor increase in the deducted amount following the holding in the insurance sector.

#### Other deductions

Surplus net value of pension plans for employees should under certain circumstances be deducted from the sum of tier 1 and tier 2. At the end of 2011 the sum of the surplus values of the plans reached EUR 156m.

# 11.5 Changes in the capital base 2011

Figure 11.1 illustrates the main changes in the capital base during year 2011.

The main part of the increase over the year, relates to core tier 1 capital stemming from profit.

#### 11.6 Capital transferability and restrictions

In general, the 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 the local regulator and are of importance when governing the capital position within the Group. The guarantee schemes introduced within EU during 2008 has under certain circumstances limited the transferability of capital with impact on cross border financial groups. There are no such restrictions directly affecting Nordea as per end of 2011.

# 11.7 Development of the capital base and the components

Figure 11.2 illustrates the increase in the capital base over a period of ten years and the developments of its main components; core tier 1, hybrid capital and tier 2 capital net deductions.

Figure 11.1 Development of the capital base 2011

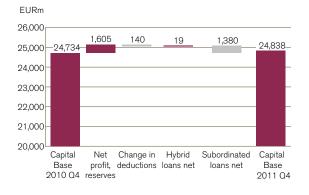
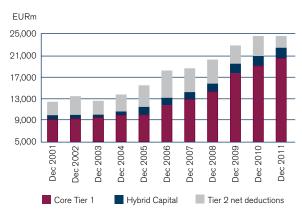


Figure 11.2 Development of the capital base



# 12. New regulations

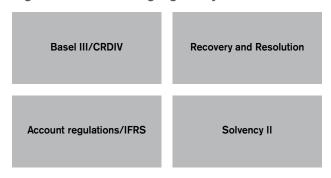
The European Commission issued a proposal of the Capital Requirement Directive IV for the European financial market in July 2011. A final version is expected to be presented early autumn 2012 and thereafter locally implemented within all member states as per January 2013.

During 2011 Nordea has put much effort into preparing for the new regulatory requirements and is moving into implementation phase in 2012 and Nordea is well prepared to meet the new requirements both in form of liquidity, capital and processes.

#### 12.1 Forthcoming regulatory framework

The changes for financial institutions in the regulatory area related to capital and risk are extensive and will be implemented in the years 2013 – 2023. Other closely related regulations are emerging such as the additional capital surcharge of so called systemically important

Figure 12.1 Forthcoming regulatory framework



4 main building blocks being enforced the next couple of years for the global financial industry capital requirement directive (CRD IV), resolution and recovery, account regulations and solvency II.

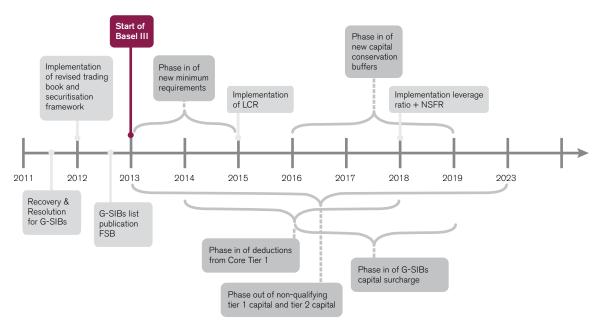
banks (SIB's) both on global (G-SIB's) and on national level (D-SIB's), a new policy for dealing with bank failure (crisis management) and changes to the accounting regulation that will have an effect on capital and risk.

The main elements of the Capital Requirement Directive (CRD) IV are further described in section 12.2. Other regulations are furthermore described in section 12.3 - 12.5.

# 12.2 Basel III and the CRD IV

In December 2010, the Basel Committee on Banking Supervision (BCBS) issued detailed rules of new global regulatory standards on credit institutions capital adequacy, leverage and liquidity that collectively are referred to as Basel III. These standards will be transposed to European legislation through the CRD IV.

Figure 12.2 Overview of the Basel III implementation and transition agreements



In Europe the Commission proposal was sent to the Parliament and Council in July 2011 for further discussion and will probably be finalised after summer 2012 and is expected to come into force from 1 January 2013. The CRD IV will be implemented both through a Regulation and a Directive. The Regulation is intended to set a single rule book for banks in all EU Member States, i.e. directly applicable to avoid divergent national rules. The Regulation contains detailed requirements covering capital, liquidity, leverage ratio, counterparty credit risk and a single rule book for capital rules. The Directive covers areas such as authorization of banks, principles for prudential supervision including pillar II rules, corporate governance, capital buffers and sanctions if an institution breaches the requirements. Further on, the Commission and the European Banking Authority (EBA) have mandates to decide a large number of technical standards to the Regulation and Directive.

During 2011 several Quantitative Impact studies (QIS) have been carried out on many areas of the regulations initiated by the Basel Committee, Financial Stability Board (FSB) and the European Commission. Extensive data gathering exercises related to new regulations is expected to continue in the coming years.

The European Commissions proposal to a CRD IV has adopted the Basel III timetable, although in the proposal end 2011 national regulators will be allowed to impose faster implementation than the time frame set forth in Basel III. In December 2011 the European Parliament's Committee on Economic and Monetary Affairs published a report on the CRD IV proposing a number of amendments to both the Directive and Regulation. The report emphasises, among other things, the need for further development of the establishment of a single rule book and the principles of maximum harmonisation. This report will be discussed and subsequently decided upon in the Parliament later in 2012.

#### 12.2.1 Revised capital regulation

The Basel III and the CRD IV framework includes several key initiatives, which change the current Basel II and EU directive framework that has been in effect since 2007.

#### Capital base

The Basel Committee as well as the European Commission proposes a revised definition of the capital base, resulting in higher quality capital and hence higher loss-absorbing capacity. The predominant form of tier 1 capital must be common shares and retained earnings.

The regulatory deductions should mainly be applied to the Common Equity Tier 1 (CET 1) component of capital. Under the current framework important deductions have been applied to other parts of the capital base as well. According to the CRD IV framework these new changes

should be phased in between 2014-2018. However, the CRD IV proposal opens up for local regulators to phase in deductions faster. In chapter 11, the capital base composition is presented, in accordance with the current regulations

The required features of capital instruments to be eligible as additional tier 1 and tier 2 capital will be stricter. For example, instruments with incentives to redeem (e.g. step up clauses) will not be eligible. Instruments that do not contain the required features should according to the Basel III and the CRD IV framework be gradually phased out between 2013 and 2022. The CRD IV proposal opens up for local regulators to phase out instruments that are not fully compliant faster.

In line with the Basel III framework, the CRD IV proposal requires banks' to comply with the following minimum capital ratios.

- Common Equity Tier 1 (CET1) capital ratio of 4.5%
- Tier 1 capital ratio of 6%
- Total capital ratio of 8.0%

The minimum CET 1 ratio and the minimum tier 1 capital ratio should, according to the Basel III framework, be gradually phased in between 2013-2015.

## Capital buffers

Besides the changed composition of the capital base, a capital conservation buffer of 2.5% is established above regulatory minimum requirements, which is designed to ensure that banks build up capital buffers outside periods of stress which can be drawn down as losses are incurred. Further, a countercyclical buffer is implemented as an extension of the capital conservation buffer, which will be developed by national jurisdictions when excess credit growth is judged to be associated with a build-up of system wide risk. Both the capital conservation buffer and the countercyclical buffer should be covered by CET 1 capital. If banks do not meet these buffers, constraints will be imposed on the banks capital distribution, such as dividends and bonuses.

The capital conservation buffer and the countercyclical buffer should according to the framework be gradually phased-in between 2016 and 2019. However, the CRD IV proposal per July 2011 opens up for local regulators to phase in minimum requirements as well as the countercyclical buffers faster. The latter only if justified by excessive credit growth.

The Basel Committee has on top of this proposed that global systemically important banks (G-SIB's) should have an additional loss absorbency requirement ranging from 1.0% to 2.5% of RWA. This additional requirement should also be met by CET 1 capital. In 12.2.7 further information regarding SIB's and G-SIB's can be found.

Proposed new capital requirements for Swedish banks In November 2011 the Swedish authorities (the Ministry of Finance, the FSA and the Riksbank) published the capital requirements that they advocate for the major Swedish banks. The requirements are that at least 10% of the risk weighted amounts should be covered by CET 1 capital by 1 January 2013 and 12% by 1 January 2015. The requirements go further than the Basel III and the CRD IV and it is also proposed to be implemented faster. The requirements include the 4.5% minimum requirement and the capital conservation buffer of 2.5% stipulated in the CRD IV. To this the authorities have added a surcharge for domestically systemic importance banks (D-SIBs) of 3% from 2013 and 5% from 2015. The SIB surcharge includes the G-SIB's surcharge stipulated by the Basel Committee. The possibility for the Swedish authorities to implement stricter requirements is subject to the final CRD IV Directive and regulation.

Figure 12.3 Future requirements on Common Equity Tier 1 capital ratio for the major Swedish banks



12.2.2 Risk weighted amounts

Risk weighted amounts will mainly be affected by additional requirements for counterparty credit risk and an introduction of an asset correlation factor for exposures towards financial institutions.

Four changes will be introduced for counterparty credit risk: the Credit Value Adjustment (CVA), an introduction of capital charge for central counterparties (CCPs) stressed VaR and specific wrong-way risk.

The Credit Value Adjustment (CVA) Risk mirrors that the value of a financial instrument may not be realized due to the default of the counterparty. The basis of the capital charge is to hold capital against potential mark-to-market losses associated with deterioration in the credit worthiness of a counterparty (which impacts CVA, a fair value component). The capital charge can be determined according to two methods: advanced or standardised. The advanced method should be implemented if the bank has both Internal Model Method (IMM) approval for counterparty credit risk and a specific interest rate VaR approval.

Also exposures to central counterparties (CCPs) will be subject to a capital requirement. A central counterparty, also known as a clearing house, is an entity that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer. The size of the

requirement will depend on the type of exposure and whether the CCP is qualified or not. To be classified as a qualifying CCP, it must be authorized by the member state and confirmed by the competent authority. For a qualified CCP, trade exposures will be subject to a requirement of 2% and the clearing member bank is furthermore obliged to cover its exposure arising from its pre-funded contribution to the default fund. Where a CCP is not qualified, the standardised approach for credit risk shall apply for trade exposures. The bank's pre-funded and contractually committed default fund contributions to such CCP should be capitalized.

Internal Model Method (IMM) for determining the default risk charge of counterparty credit risk will also need to take into account periods of stress covering a period of 3 years.

In addition, the CRD IV proposes changes to how exposures are calculated where specific wrong-way risk has been identified. Specific wrong way risk occurs when the future exposure to a specific counterparty is highly correlated with its default probability.

## 12.2.3 New leverage regulation

The Basel Committee proposed that the risk sensitive capital framework should be supplemented with a non-risk based measure, the leverage ratio. The CRD IV introduces this in order to limit an excessive build-up of leverage on credit institutions' balance sheets and thus help containing the cyclicality of lending. It will be introduced as an instrument for the supervisory review of institutions. The impact of the ratio will be monitored with an aim to migrating to a binding pillar I measure in 2018, based on appropriate review and calibration, in line with international agreements. The ratio will be calculated as the tier 1 capital divided by the exposure (on-balance and off-balance sheet exposures, with some adjustments for certain items such as derivatives). A minimum leverage ratio of 3% will be evaluated during the parallel run period from 1 January 2013 to 1 January 2017.

### 12.2.4 New liquidity regulations

The objective of the liquidity reform is to improve the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source, thus reducing the risk of spill-over from the financial sector to the real economy. The Basel Committee has developed two new quantitative liquidity standards, as part of the new Basel III framework i.e. liquidity coverage ratio (LCR) and net stable funding ratio (NSFR). The standards aim to set the minimum levels of liquidity for internationally active banks. LCR aims to ensure that a bank maintains an adequate level of unencumbered, high quality assets that can be converted into cash to meet its liquidity need for a 30-day time horizon under an acute liquidity stress scenario. NSFR establishes a minimum acceptable amount of stable funding based on the liquidity characteristics of an institution's assets and activities over a one year horizon. To further strengthen and promote consistency in

international liquidity risk supervision, the Basel Committee has also developed a minimum set of monitoring tools to be used in the on-going monitoring and in communicating this exposure among home and host supervisors. Both LCR and NSFR will be subject to an observation period and will include a review clause to address any unintended consequences. Any revisions would be made to the LCR by mid-2013 and to the NSFR by mid-2016. After the observation period, LCR will be introduced January 2015 and NSFR will move to minimum standard by January 2018.

CDR IV issued by European Commission during the summer has adopted the same approach as Basel III by introducing LCR and NSFR with observation periods. However, the significant change is a somewhat tentative approach towards NSFR by postponing the final decision to end of 2016. By December 2015, the European Banking Authority (EBA) shall report to the Commission whether and how it would be appropriate to use NSFR, including an impact assessment. By December 2016, the Commission shall on the basis of this information, submit a report and, if appropriate, a legislative proposal to the European Parliament and Council.

#### 12.2.5 Pillar 2

Pillar 2, or the Supervisory Review Process (SRP), comprises of two processes:

- The Internal Capital Adequacy Assessment Process (ICAAP) and
- The Supervisory Review and Evaluation Process (SREP).

The Pillar II process has not been changed in the Basel III agreement compared to the current regulation in Basel II. In the CRD IV the Commission has, however, suggested a considerable widening of the national authorities mandate within Pillar II. The suggestion is to introduce systemic risk and the possibility to increase the own funds requirement for a certain type of institutions (group of institutions) that is or might be exposed to similar risks or pose similar risks to the financial system. The technical criteria for the SREP have also been extended to include a number of new criteria's (e.g. business model, geographical location of exposures, excessive leverage).

## 12.2.6 EBA binding technical standards

In January 2011 the European banking Authority (EBA) was established replacing the tasks and responsibilities from the Committee of European Banking Supervisors. EBA is an authority which main focus is to set European regulatory technical standards and guidelines for banks.

The main objective of EBA is to play a leading role in the creation of the single rule book for the EU Banking system. Based upon the CRD IV, published in July 2011, about 200 deliverables will be expected from the EBA including more than 100 binding technical standards, of which 40 during 2012. These will be detailed and leave very little possibility to make national interpretations.

### 12.2.7 Systemically Important Banks (SIB's)

In November, the Financial Stability Board (FSB) in cooperation with the Basel Committee presented, their regulatory framework regarding the G-SIB's. Furthermore FSB presented the list of a 29 banks, of which Nordea is one, that are classified as G-SIB's and therefore will be subject to an extra capital surcharge, more intensive supervision and requirements for resolution planning.

The list of G-SIB's will be updated annually and published by the FSB in November each year. As a result new entries and exits as well as the number of G-SIB's may change. The methodology will be reviewed every three years to capture changes and progress in measuring systemic importance. As from November 2012, the list will show the allocations to buckets corresponding to the level of additional loss absorbency banks would be required to meet if the requirements had been in effect.

Banks are defined and mapped into 4 buckets with capital requirements ranging from additional 1.0% to 2.5% in a two-step process; first a sample of banks (currently 73) are all analysed through the five indicator methodology as shown in table 12.1, secondly the banks considered systemically important are mapped into 4 buckets.

The additional loss absorbency requirements will be phased in parallel with the capital conservation and countercyclical buffers starting in January 2016 becoming fully effective on 1 January 2019, initially to those banks listed in November 2014 using the allocation to buckets at that date. The first three year review will be conducted by November 2017.

Table 12.1 Five indicator methodology

Indicator	Individual sub-indicator	Indicator weighting
Cross-jurisdictional	Cross-jurisdictional claims	10%
activity	Cross jurisdictional liabilities	10%
Size	Total exposures	20%
Interconnectedness	Intra-financial system assets	6.67%
	Intra-financial system	
	liabilities	6.67%
	Wholesale funding ratio	6.67%
Substitutability/ financial institution infrastructure	Asset under custody	6.67%
	Payments cleared and settled through payment systems	6.67%
	Values of underwritten transactions in debt and	
	equity markets	6.67%
Complexity	OTC derivatives	6.67%
	Level 3 assets	6.67%
	Held for trading and available	
	for sale	6.67%

The G-SIB's on the list will also need to meet the resolution planning requirements by end 2012. National authorities may decide to extend these resolution planning requirements to other institutions in their jurisdictions. For further information regarding recovery and resolution plans, please see section 12.3.

In addition to resolution planning and capital surcharges G-SIB's will also be subject to more supervision and higher supervisory expectations for risk management functions, data aggregation capabilities, risk governance and internal controls.

The FSB will also review how to extend the framework to also cover a wider group of institutions, including financial market infrastructures, insurance companies and other non-bank financial institutions that are not part of banking group structure.

## 12.2.8 Corporate governance and risk management procedures

The CRD IV Directive also introduces new rules related to the corporate governance of financial institutions. These rules are aimed at increasing the effectiveness of risk oversight by boards, strengthening the status of the risk management function and ensuring effective monitoring by supervisors of risk governance. Changes to banks risk management procedures, remuneration and disclosure are also suggested.

## 12.3 Crisis management

During 2011 FSB published the Consultative Document of "Effective resolution of Systemically Important Financial institutions" and "Key Attributes of Effective Resolution Regimes for Financial Institutions".

Also the European Commission published the Consultative documents "Crisis Management Directive", which is planned to be adopted by 2014.

The objective of the new regulations is to reduce the risk of bank's failure through better planning for financial disasters (recovery). The impact of failure could be reduced if a plan (resolution) could be prepared to enable an institution to be taken through bankruptcy in an orderly fashion without costs for tax payers.

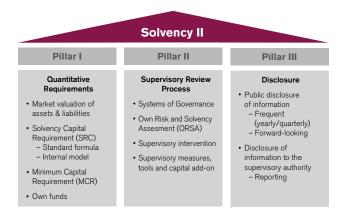
These measures put a lot of emphasis on building an international standard for national resolution regimes as well as creating requirements for resolvability.

## 12.4 Solvency II

New regulation is also approaching the insurance business – Solvency II. The latest presidency compromise text (omnibus II directive) proposes that Solvency II implementation be delayed until 1 January 2014. However some soft implementation is expected to be inforced in 2013. The three main objectives of the new legislation are firstly to have a forward looking Risk Based Solvency Capital assessment and replacing the old "volume based" capital

requirement framework. Secondly, to ensure that the risk ownership is anchored in Group Executive Management and Board of Directors and finally to ensure that the risk measurement and governance is embedded into business operations and strategic planning. The Solvency II framework - likewise Basel III - consists of three pillars as shown in figure 12.4.

Figure 12.4 Solvency II framework



Pillar I outline a valuation standard for assets and liabilities and lays out the capital requirements that firms will be required to meet for all risks, in particular insurance, credit, market and operational risk. Capital requirements may be calculated using a standard formula, or, if firms have supervisory approval, they may use their own internal models for risk measurement. The standard formula requires use of "stochastic simulation technique" to calculate the insurance liabilities, when the products have embedded options and guarantees.

Pillar II is the supervisory review process that focuses on evaluating the adequacy of capital and risk management systems and processes.

A very important element is the Own Risk and Solvency Assessment (ORSA) that shall provide a comprehensive picture of the risks the undertaking is expected to or could face in the future. It shall also enable the management body to understand these risks and how they translate into capital needs or alternatively require mitigation actions.

Supervisors may decide if a firm should hold additional capital against any risks not adequately covered in Pillar I.

Pillar III disclosures will harness market discipline by requiring firms to publish more comprehensive information of their risk and capital management.

In April 2009 the Solvency II Framework Directive was approved by the European Parliament and European Council. This is the so called Level 1 legislation.

The European Commission sent out draft consolidated implementing measures in spring 2011 and a new draft

has followed in November 2011. This is the so called Level 2 legislation. The Level 2 legislation is expected to be approved in the European Parliament in autumn 2012.

Throughout 2011 European Insurance and Occupational Pension Authority (EIOPA) has worked on the Level 3 advises. These advices are discussed with the industry in pre-consultation waiting for the Level 2 legislation to be completed. These activities include issuing supervisory standards, recommendations and guidelines to enhance convergent and effective application of the regulations and to facilitate cooperation between national supervisors.

#### 12.5 Other regulations

There are other regulations under consideration and implementation, which require close monitoring and assessment of the impact. New accounting rules and proposal for a tax on financial transactions are two examples.

Nordea's accounting policies, which follow International Financial Reporting Standards (IFRS), are under significant change. Nordea's assessment is that the most important changes for Nordea are related to Financial Instruments (IFRS 9), Insurance Contracts (IFRS 4) Employee Benefits (IAS 19) and Leasing (IAS 17), although also other changes might/will have a significant impact on Nordea. IAS 19 has been finalised and is effective for Nordea as from 1 January 2013. The finalisation dates and effective dates for the other standards are still uncertain.

## 13. Remuneration

Nordea has clear remuneration policies, instructions and processes, securing sound remuneration structures throughout the organisation.

#### 13.1 The Board Remuneration Committee

The Board Remuneration Committee (BRC) is responsible for preparing and presenting proposals to the Board of Directors on remuneration issues. This includes proposals regarding the Nordea Remuneration Policy and supplementing instructions, guidelines for remuneration to the executive officers to be decided by the Annual General Meeting (AGM) as well as the remuneration for the Group Chief Executive Officer (CEO), the Group Chief Audit Executive (CAE) and also other employees in leading positions. At least annually, the Committee follows-up on the application of the Nordea Remuneration Policy and supplementing instructions through an independent review by Group Internal Audit.

#### 13.2 Remuneration risk analysis

New regulations require financial institutions to establish a remuneration policy and to conduct a risk analysis in respect of the policy. Nordea's risk analysis includes risks related to the governance and structure of the remuneration schemes, goal setting and measurement of results, as well as fraud and reputation. Mitigating actions are furthermore described. The main focus in the analysis is on the variable remuneration elements.

## 13.2.1 Effective and balanced risk management

Nordea Remuneration Policy and its underlying instructions, systems, schemes and processes is aligned with and supports efficient risk management and discourages excessive risk-taking by:

- Ensuring that the Remuneration Policy, instructions and schemes etc. are approved at the relevant organisational level, supported by analyses of potential financial as well as non-financial consequences, where relevant.
- Having clear governance and approval processes for all compensation elements, including the grandparent principle, and by having most compensation paid as fixed compensation.
- Requiring that the main variable remuneration elements are based on a pre-determined set of well-defined financial as well as non-financial success criteria, including Nordea Group criteria.
- Having divisional pools defined by a share of divisional economic profit.

Risks related to the processes governed by the Remuneration Policy exist and will continue to exist going forward. Nordea applies a wide range of processes, tools and control activities to manage the risks and thereby reduce potential negative effects.

## 13.2.2 The governance and structure of the remuneration schemes

A range of new regulations as well as recommendations on best market practices have been issued in respect of the structure of variable remuneration elements on the back of the financial crisis. Nordea aims at developing the structure of variable remuneration elements on a continuous basis in order to meet own needs, regulatory requirements, and such best market practices. The schemes are considered to take these factors satisfactorily into account.

In the second half of 2009 Nordea engaged external consultants to perform a review of key issues in respect of Bonus structures, principles, and levels. Although certain changes and improvements were recommended, the review concluded that Nordea has a reasonably well structured Bonus schemes, measured against new international guidelines. The identified gaps were addressed by Nordea. In autumn 2010 a follow-up review was conducted, concluding a need for a shift in the balance between variable and fixed compensation due to new regulations and per 1 January 2011 Nordea introduced caps on individual variable compensation as part of fixed compensation.

Even well-structured Remuneration Policy and variable remuneration schemes can be counter-productive if the goals and performance criteria are ill-designed. Nordea pays due attention to these risks by conducting a broadly based strategy process on an annual basis and reflecting this process in the decision on financial targets, risk limits and Group KPIs. Group KPIs furthermore include both financial and non-financial targets.

## 13.2.3 Performance measurement and control defines remunerations

Measuring results and achievements correctly and consistently is, and will continue to be, a challenge. Good systems and processes for performance measurement are important for fair and equal treatment of employees under variable remuneration schemes. This applies to both quantitative and qualitative criteria. Nordea meets this challenge by undertaking continuous improvements in the financial reporting processes as well as having clear governance and approval processes, including the grandparent principle. When assessing goal and target fulfilment, discretionary judgment is furthermore applied in addition to absolute outcome.

There is always a risk of fraudulent actions by one or more employees. This means that there is a risk of e.g. manipulating results. Nordea mitigates this risk by means of its internal control framework which is based on the control environment, and includes the following elements: Values and management culture, goal orientation and follow-up, a clear and transparent organisational structure, segregation of duties, the four-eye principle, quality and efficiency of internal communication and an independent evaluation process.

#### 13.2.4 Annual review of all remuneration schemes

Nordea furthermore meets reputational challenges by performing an annual review of all remuneration schemes, aiming at having competitive remuneration schemes, while at the same time ensuring that these schemes are based on the Group's business strategies and goals. Nordea also meets the challenge by disclosing relevant information in terms of policies and principles, specific schemes, amount in respect of variable remuneration in the Group, as well as total compensation to Group Executive Management and Board of Directors.

### 13.3 Bonus schemes risk analysis

Bonus schemes are only offered to selected groups of employees employed in specific businesses areas or units approved by the Board of Directors. Nordea pays bonuses linked to performance where both divisional bonus pools and individual allocations are explicitly based on defined performance measures. Divisional financial performance is measured as risk-adjusted profits, explicitly incorporating capital and funding costs, and adjust for multi-period revenue effects as well as minimum required profit. In the event of weak or negative overall Nordea Group result, bonus pools can be adjusted downwards at the discretion of the Board of Directors. As such, individual compensation is determined based on detailed performance evaluations covering a range of financial and non-financial factors.

Inappropriate individual bonuses are prevented through both caps on the percentage of risk-adjusted profit that can be paid out as well as individual caps. Nordea has introduced deferral programmes for the staff in the risk analysis, defined as employees having an impact on Nordea's risk profile.

Care is taken to ensure that control and compliance staff employed in divisions having bonus schemes remains competitively rewarded.

The Board of Directors decides new or revised bonus schemes and outcome of divisional bonus pools on proposal by BRC. GEM has responsibility for the implementa-

tion of the agreed bonus schemes. Nordea also applies a stringent process to ensure that compensation for individuals does not encourage excessive risk taking behaviour. To supplement the division level assessment, there is an approval process for significant bonuses to individuals, with the CEO's approval required for bonuses exceeding a predetermined level.

#### 13.4 Additional disclosures on remuneration

Additional disclosures on remuneration under Nordic FSAs' regulations and general guidelines are published in the Annual Report and in a separate report on Nordea's homepage (www.nordea.com) in due time before the Annual General Meeting.

# 14. Appendix

#### 14.1 Government guarantee scheme

In response to the financial markets turmoil, the governments in each of the Nordic countries launched state funding schemes, guarantee schemes or capitalisation programs. To date, other than to facilitate the Swedish State's subscription of its pro rata number of new ordinary shares in the rights offering carried out in the spring of 2009 through the National Debt Office, the Nordea Group has not joined the Finnish or Swedish state funding or capitalisation schemes or the Danish or Norwegian capitalisation schemes. The Swedish State's subscription in Nordea's rights offering was financed through the State's stabilisation fund. The stabilisation fund is financed with fees paid by banks and other credit institutions. The total stabilisation fee paid by the Nordea Group in Sweden was EUR 20 million in 2010. The Nordea Group expects this fee to be approximately twice as high in 2011 as the stabilisation fee increases from 0.018% of a bank's total liabilities to 0.036% in 2011.

In the first half of 2011, central banks and governments begun to unwind the support measures introduced in 2008 and 2009. However, during the summer months investors became increasingly concerned about the sovereign debt crisis together with political uncertainties and weakening growth prospects. The room for fiscal stimulus has been reduced by debt worries and consequently the central banks have been forced to continue to provide liquidity to the markets. There has been a clear tightening of liquidity conditions which has also been reflected in the interbank markets.

## 14.2 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.

The Basel II framework was implemented in EU through the Capital Requirement Directive (CRD) and is built on three pillars:

- Pillar I requirements for the calculation of the RWAs and capital requirements
- 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. During 2010 and 2011, new requirements have been added to the CRD regulation. The CRD II was implemented end 2010 strengthening the large exposure regime, increased the quality of the capital base

and added stricter securitisation regulation. CRD III which was valid from 31 December 2011 includes capital requirements for re-securitisation, disclosure of securitisation positions, capital requirements for the trading book positions and remuneration policies (from 1 January 2011). The transition rule, stipulating that the capital requirement is not allowed to be below 80% of the capital requirement calculated under Basel I regulation is prolonged until end of 2015.

#### Pillar I

The 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:

Minimum capital requirements = Capital base / RWA where, Minimum capital requirements  $\geq$  8%

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 was 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:

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 counterpart and fixed estimates for LGD and CCF, while Advanced IRB is based on internal estimates for PD, LGD and CCF.

## 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 institutes 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. For further information of Pillar II, please see chapter 10.

#### 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
- Liquidity risk
- Remuneration policy

## Primary approaches in the CRD Approaches for reporting capital requirements

Credit Risk	Market Risk	Operational Risk
Standardised approach     Foundation Internal rating Based approach     Advanced Internal Rating Based approach	Standardised approach     Internal Models     approach	Basic Indicator approach     Standardised approach     Advanced Measurement approach

## 14.3 IRB approach

A diversified credit portfolio can be divided into the exposure classes defined by the CRD. The basis for calculation of the EAD in the RWA formula is the division of exposure classes. Nordea is approved to use the IRB approach for the exposure classes: institution, corporate, retail and other non-credit obligation assets. For the remaining exposure classes Nordea used the standardised approach in 2011. Following is a description of what exposures are included in the different exposure classes.

#### 14.3.1 IRB exposure classes

Institution exposure

Exposure to credit institutions and investment firms is classified as exposure to institutions. In addition, exposure to regional governments, local authorities and multilateral development banks is classified as exposure to institutions if it is not treated as exposure to sovereigns<sup>1)</sup> according to regulations issued by the authorities.

#### Corporate exposure

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

#### Retail exposure

Exposure to small and medium sized entities (with an exposure of less than EUR  $250k^2$ ) 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.

## 14.3.2 Calculation of RWA in IRB approach

The calculation of exposure at default (EAD) in Nordea differs between approaches but is also depending on the exposure classes within the 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 while LGD, EAD and maturity are set by the supervisory authorities.

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.

## 14.3.2.1 Exposure at Default (EAD)

The EAD is an estimation of the total exposure to the customer at the time of default. For on-balance sheet items, EAD is normally the same as the booked value, such as the market value or utilisation. For off-balance exposures, a CCF is multiplied with the amount to estimate how much of the exposure will be drawn at default.

## 14.3.2.2 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

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

<sup>2)</sup> EUR 100k in Baltic countries, Poland and Russia

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.

## 14.3.2.3 Loss Given Default (LGD)

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

For the FIRB institution and corporate exposure classes the LGD values are fixed by financial supervisory authorities. The LGD value in the retail IRB approach is based on internal estimates. 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, country and customer type.

#### 14.3.2.4 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. 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.

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

## 1. 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.

#### 2. 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, financial 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.

### 3. Adjusted EAD

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.

Nordea uses a wide variety of risk mitigation techniques in several different markets which contribute to risk diversification and credit protection.

#### 14.3.2.5 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.

## 14.4 Standardised approach

## 13.4.1 Standardised exposure classes

Central governments and central banks

Exposure to central governments and central banks is, treated with low risk if the counterparty is within European Economic Area (EEA) member states and has a high rating.

## Regional governments and local authorities

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

#### Institution exposure

Exposure to institutions is 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 this exposure.

## Corporate exposure

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

#### Retail exposure

Retail exposure is assigned a risk weight of 75%.

#### Exposure secured by real estate

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

#### Other

- Exposure to administrative bodies and non-commercial undertakings (such as public sector entities) subject to decision by the local authority is assigned a risk weight of 0% to 100%.
- Exposure to named multilateral development banks is assigned a risk weight of 0%. Other multilateral development banks are assigned a risk weight according to the methods used for exposures to institutions.
- Exposure to named international organisations is 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. Short-term corporate exposure, for which a short-term credit assessment by a nominated rating agency is available, is assigned a risk weight in accordance with a six step mapping scale made by the financial authorities.
- Other items
  - 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.

## 14.4.2 Calculation of RWA in 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 approach 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 approach 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.

# List of abbreviations

ADF	Actual Default Frequency	FX	Foreign Exchange
AGM	Annual General Meeting	G-SIB's	Global Systemically Important Banks
ALCO	Asset and Liability Committee	GCCR	Group Credit Committee Retail
ALM	Asset Liability Management	GCCW	Group Credit Committee Wholesale
BCBS	Basel Committee on Banking Supervision	GEM	Group Executive Management
BRC	Board Risk Committee	GEM CC	Group Executive Management
CAE	Chief Audit Executive		Credit Committee
CCF	Credit Conversion Facto	GICS	Global Industries Classification Standard
CCO	Chief Credit Officer	GMRM	Group Market Risk Management
CCP	Central Counterparties	GORC	Group Operational Risk and Compliance
CEM	Current Exposure Method	GVC	Group Valuation Committee
CET1	Common Equity Tier 1	IAS	International Accounting Standard
CDO	Collateralised Debt Obligation	ICAAP	Internal Capital Adequacy
CDS	Credit Default Swap		Assessment Process
CEO	Chief Executive Officer	IFRS	International Financial Reporting Standard
CFO	Chief Financial Officer	IMM	Internal Model Method
CLN	Credit Linked Notes	IRB	Internal Rating Based approach
CLS	Continuous Linked Settlement	IRM	Incremental Risk Measure
CMO	Collateralised Mortgage Obligations	LCR	Liquidity Coverage Ratio
CP	Commercial Paper	LGD	Loss Given Default
CRD	EU's Capital Requirements Directive	LTV	Loan to Value
CRM	Comprehensive Risk Measure	MCEV	Market Consistent Embedded Value model
CRMVC	Credit Risk Model Validation Committee	NBSF	Net Balance of Stable Funding
CRO	Chief Risk Officer	NLP	Nordea Life and Pensions
CVA	Credit Value Adjustment	NSFR	Net Stable Funding Ratio
D-SIB's	Domestic Systemically Important Banks	ORSA	Own Risk and Solvency Assessment
EAD	Exposure at Default	OTC	Over The Counter (derivatives)
EBA	European Banking Authority	ORX	An international database for incidents
EC	Economic Capital	P/L	Profit and Loss
ECC	Executive Credit Committee	PD	Probability of Default
EEA	European Economic Area	PIT	Point-in-Time
EIOPA	European Insurance and Occupational	QIS	Quantitative Impact Study
	Pension Authority	QRA	Quality and Risk Analysis
EL	Expected Loss	RWA	Risk Weighted Amount
EP	Economic Profit	S&P	Standard & Poor's
ERAT	Environmental Risk Assessment Tool	SIB's	Systemically Important Banks
EU	European Union	SIIR	Structural Interest Income Risk
EV	Economic Value	SME	Small and Medium-sized Enterprises
FFFS	Finansinspektionens Författningssamling	SPE	Special Purpose Entity
	(The Swedish FSA's directive)	SPRAT	Social and Political Risk Assessment Tool
FIRB	Foundation Internal Rating Based approach	SREP	Supervisory Review and Evaluation Process
FSA	Financial Supervisory Authority	SRP	Supervisory Review Process
FSB	Financial Stability Board	TTC	Through-the-Cycle
FTD	First-to-Default	VaR	Value at Risk

