Disclosure Report
in Accordance with § 26a of the German Banking Act
and the German Solvency Regulation

as at 31 December 2012

Finanzgruppe

Die norddeutsche Art.

The rounding of figures may result in minor differences in the totals and percentages calculated in this report.

1 Preamble

The German Solvency Regulation entered into force on 1 January 2007. It spells out the regulations governing the capital adequacy of institutes, groups of institutions and financial holding groups demanded by §10 of the German Banking Act (HGB) and supersedes the previous Principle I.

The German Solvency Regulation (SolvV) transposes the European standards prescribed in the Banking Directive and the Capital Adequacy Directive into national law. The European standards in turn are based on the international Basel II set of regulations issued by the Basel Committee on Banking Supervision.

Requirements relating to the regular disclosure of qualitative and quantitative information to enhance market discipline are defined in Pillar 3 of Basel II. The aim is to create transparency with regard to the risks entered into by the institutes. Pillar 3 thus supplements the minimum capital requirements of Pillar I and the supervisory review process of Pillar 2. In Germany the disclosure requirements were generally implemented in § 26a of the German Banking Act (KWG). These requirements were spelled out in Part 5 of the German Solvency Regulation in §§ 319 to 337.

This report as at 31 December 2012 constitutes the disclosure of qualitative and quantitative information in accordance with the German Solvency Regulation by Norddeutsche Landesbank Girozentrale, Hanover, (NORD/LB) as the superordinate institute in the NORD/LB Group for a regulatory group. Disclosure in accordance with the German Solvency Regulation is generally aligned towards a group approach. This means that member companies in the Group are not obliged to disclose such information separately.

The disclosure principles and the disclosure process of the NORD/LB Group are set out in the "Disclosure Guidelines for the Norddeutsche Landesbank Group on Regulatory Disclosure in accordance with § 26a of the German Banking Act and the German Solvency Regulation". An important principle in this respect is the regular review of the disclosure report with regard to the need for optimisation. As a result of the last review several optimisations have been carried out to further improve transparency. Where only clarifications or more precise definitions were made, these are considered in this report, but they are not explicitly pointed out as they did not result in any changes in content.

The disclosure report is an auxiliary document supplementing the Annual Report of the NORD/LB Group prepared on the basis of International Financial Reporting Standards (IFRSs) and the individual annual reports of Group member institutes prepared on the basis of the German Commercial Code. Norddeutsche Landesbank Luxembourg S. A., Luxembourg, and NORD/LB COVERED FINANCE BANK S. A., Luxembourg are exceptions in this case because they prepare their annual financial statements in accordance with IFRSs.

Information on equity is disclosed on the one hand, while on the other hand material risks and the corresponding system of risk management as well as methods of risk control are described. The overall risk profile of the NORD/LB Group is reviewed and its material risks are identified in the risk inventory, which takes place at least annually. This currently includes counterparty risk (credit risk and investment risk), market-price risk, liquidity risk and operational risk.

Quantitative disclosures contained in this report are based on the German Commercial Code which currently constitutes the basis for preparing regulatory reports in accordance with the German Solvency Regulation in the NORD/LB Group. Norddeutsche Landesbank Luxembourg S. A. and NORD/LB COVERED FINANCE BANK S. A. are exceptions here too, since their quantitative disclosures relating to the equity are based on Lux GAAP or on IFRSs.

For further information about risk beyond regulatory German Solvency Regulation requirements, this report contains a few references to the risk report which is part of the NORD/LB Group's management report. Here a detailed account is given on risk developments for each significant risk types in the period under review and an outlook for developments anticipated in future.

In accordance with § 320 para. 1 of the German Solvency Regulation, this disclosure report is published on the NORD/LB website under www.nordlb.de/reports. The publication of the report is announced in the electronic German Federal Register (www.ebundesanzeiger.de) in accordance with § 320 para. 2 of the German Solvency Regulation.

2 Application

German Solvency Regulation requirements for disclosure relate to regulatory groups of institutes in accordance with §10a of the German Banking Act. However, only the significant companies from a risk point of view in the group of institutes are included in disclosure. The institutes are selected on the basis of a concept of materiality which is regularly reviewed so that changes in the regulatory group are taken into account for disclosure purposes.

Compliance with the principle of materiality therefore results in a deviating scope of application. The group of significant companies, which are included in the quantitative risk reporting using the look-through approach, is defined in a multi-stage process which is described in section 5.2.1. In the NORD/LB Group, quantitative risk reporting on the basis of individual risks is based on the significant companies of the NORD/LB Group from a risk point of view.

Based on this concept, NORD/LB, Bremer Landesbank Kreditanstalt Oldenburg – Girozentrale –, Bremen (Bremer Landesbank), Norddeutsche Landesbank Luxembourg S.A., Luxembourg (NORD/LB Luxembourg), Deutsche Hypothekenbank (Actien-Gesellschaft), Hanover (Deutsche Hypo) as well as NORD/LB COVERED FINANCE BANK S.A., Luxembourg (NORD/LB CFB), are included in this report as significant Group institutes from a risk point of view. All qualitative and quantitative disclosures therefore refer to this basis of consolidation. Particularities of the individual Group institutes are explicitly stated.

From the point of view of the entire Group, the other institutes account in quantitative terms for an insignificant level of individual risk. Risks concerning these companies are treated as investment risk.

The audit of the significant Group companies from a risk point of view considers both the consolidated companies in accordance with IFRS and the companies included in the regulatory basis of consolidation. “Group” is hence the term used below to refer to both the regulatory group and the group in accordance with IFRSs.

In accordance with §323 para. 1 no. 2 of the German Solvency Regulation, Table 1 contains an overview of the regulatory group of significant institutes included in the NORD/LB Group and information on how they are treated in the IFRS basis of consolidation.

Table 1: Consolidation matrix for the NORD/LB Group

Type of institute	Name	Regulatory treatment				IFRS consolidation	
		Consolidation		Deduction method	Risk-weighted investments		
		Full	Proportionate			Full	Measured using equity method
Bank (parent company)	Norddeutsche Landesbank Girozentrale	●				●	
Bank	Bremer Landesbank Kreditanstalt Oldenburg – Girozentrale –	●				●	
Bank	Norddeutsche Landesbank Luxembourg S.A.	●				●	
Bank	Deutsche Hypothekenbank (Actien-Gesellschaft)	●				●	
Bank	NORD/LB COVERED FINANCE BANK S.A.	●				●	

The independent market presence of the five significant Group institutes highlights the focus on their own products and regions while, at the same time, the close ties within the Group represent a significant factor for success. Below is a description of each institute.

NORD/LB is a registered public institute in Germany, with registered offices in Hanover, Braunschweig and Magdeburg. Its head office is in Hanover. NORD/LB is the state bank (Landesbank) for the federal states of Lower Saxony and Saxony-Anhalt. In these two federal states and in Mecklenburg-Western Pomerania the bank performs the functions of a central and clearing bank for the savings banks (Girozentrale). NORD/LB operates in the segments of Private and Commercial Customers, Corporate Customers & Markets, Energy and Infrastructure Customers, Ship and Aircraft Customers and Real Estate Banking Customers as a commercial bank.

Bremer Landesbank sees itself as a universal bank acting as a regional commercial bank with transregionally chosen business while at the same time performing its role as a state bank and a central bank for the savings banks. Its core business region is North West Germany, from where the bank supports its regional and international customers in Europe. The owners of Bremer Landesbank are NORD/LB, which holds 54.8 per cent of the share capital, the federal state of Bremen with a 41.2 per cent shareholding and the Association of the Savings Banks of Lower Saxony with 4.0 per cent.

NORD/LB Luxembourg was founded in 1972 as an independent public limited enterprise under Luxembourg law. Since 1975 it has been a wholly-owned subsidiary of NORD/LB. NORD/LB Luxembourg's activities lie in the business segments of Private Banking, Corporate Banking and Financial Markets.

Deutsche Hypo, which was established in 1872, is a well-positioned mortgage bank with a rising volume of commercial real estate business. The pooling of know-how raises the significance, image and acquisition power of the NORD/LB Group among customers, partners and investors in the market for providing finance for commercial real estate. NORD/LB holds 100 per cent of Deutsche Hypo's share capital and the voting rights.

NORD/LB CFB was established as a wholly-owned subsidiary of NORD/LB Luxembourg. It is a specialised bank with a licence to issue lettres de gage publiques (covered bonds under Luxembourg law). NORD/LB CFB acts as a centre of competence for the NORD/LB Group's OECD-wide international public finance business. NORD/LB CFBs funding focusses on medium and long-term covered issues outside the EURO.

In addition to the five significant institutes in the NORD/LB Group stated above, the basis of consolidation under regulatory law and IFRSs comprises another 103 companies which are not significant from a risk point of view and in which NORD/LB holds direct or indirect interest. These include seven banks, four financial services institutions, 75 financial companies, three insurance companies, one investment company, three providers of support services and ten other companies.

Of these companies, 27 are fully consolidated under regulatory law, 56 are subject to the deduction method and 25 are exempted from inclusion in the consolidated reports in accordance with § 31 para. 3 of the German Banking Act. 43 companies included in the IFRS basis of consolidation are not consolidated under regulatory provisions. 49 companies are fully consolidated in accordance with IFRSs and 11 are measured using the at Equity method. 60 companies included in the regulatory basis of consolidation are not consolidated in accordance with IFRSs.

A complete list of equity holdings in accordance with § 313 para. 2 of the German Commercial Code is published in the notes to the consolidated financial statements (Note 83).

The insignificant Group companies from a risk point of view result in deviations between the figures in the disclosure report and those in the Annual Report of the NORD/LB Group. Deviations may also occur because German Commercial Code figures are used in the disclosure report and IFRS figures in the consolidated financial statements and because other effects of consolidation are not included.

Changes to the figures disclosed as at the reporting date 31 December 2011 are also the result methodological changes made in the meantime.

In the NORD/LB Group there are currently no limitations or other significant restrictions on the transfer of funds or liable equity in accordance with § 323 para. 1 no. 3 of the German Solvency Regulation.

There are no exceptions in the NORD/LB Group relating to compliance with specific German Banking Act provisions for subsidiary Group member institutes defined in the waiver regulation in § 2a of the German Banking Act, for example instructions concerning equity, large-scale loans and internal control systems in accordance with § 25a para. 1 of the German Banking Act.

There were no subsidiaries in the NORD/LB Group which are subject to the deduction method and report insufficient capital in accordance with § 323 para. 2 of the German Solvency Regulation.

3 Risk Management

3.1 Risk Management Strategies and Processes

The business activities of a bank inevitably involve the deliberate undertaking of risks. Efficient risk management in terms of a risk-and-return-oriented allocation of equity is therefore a key component of modern bank management and a high priority for the NORD/LB Group. From a business point of view, the NORD/LB Group defines risk as being potential direct or indirect financial losses due to unexpected negative differences between the actual results and projected results of business activity.

The NORD/LB Group conducts at least once a year and when required a multi-stage process to develop an overall risk profile in accordance with the Minimum Requirements for Risk Management (MaRisk) General Part AT 2.2. In this profile the risk types relevant to the NORD/LB Group are presented and a further distinction is made between material and non-material risks. Material in this context are all relevant risks which could have a negative impact on the NORD/LB Group's capital resources, earnings, the liquidity position or the achievement of NORD/LB Group's strategic goals.

Basic conditions for structuring this risk management process are specified for banks and groups of banks in the MaRisk on the basis of § 25a of the German Banking Act. In accordance with these requirements, proper business organisation includes the specification of strategies on the basis of procedures for ascertaining and securing risk-bearing capacity, which comprises both risks and the capital available for covering these risks.

The responsible handling of risks is the uppermost priority in the business policy of the NORD/LB Group. The Group risk strategy, drafted with this in mind, overrides the risk strategies of the significant companies of the NORD/LB Group from a risk point of view and is substantiated by their risk strategies.

The risk strategies of the significant Group companies from a risk point of view are in each case defined in accordance with the business model, the business strategy and the Group risk strategy policy and are reviewed at least once a year. All risk strategies contain information on the principles of risk strategy, the organisation of the risk management and on sub-strategies for risks relating to the material risk types.

The core element of the risk strategy is the risk-bearing capacity model (RBC model), on the basis of which risk appetite is specified. For the NORD/LB Group it was conservatively determined that normally in a going-concern scenario at most 80 per cent of the risk capital may be covered with risk potential. 20 per cent of the risk capital is held as a buffer.

The maximum risk capital is also allocated to the material risk types in the risk strategies. Most of the coverage is allocated to credit risk, reflecting the NORD/LB Group's focus on customer-oriented lending business. The individual institutes are responsible for determining the allocation relevant for them, although this must be consistent with the allocation for the Group.

The Group risk strategy and the risk strategies of the significant companies from a risk point of view were reviewed and adjusted in 2012 and discussed with the Supervisory Boards after being passed by the respective Managing Board.

The risk strategies aim to achieve an optimal management of all material risk types and to achieve the transparent presentation of these risks to the management, the supervisory bodies and other third parties with a justified interest. Based on this, the significant companies of the NORD/LB Group from a risk point of view have a range of further instruments at operational level which ensure that there is sufficient transparency of the risk situation and structure the required limitation and portfolio diversification in a way which can be controlled and monitored. These instruments are described in detail in the NORD/LB Group's risk handbook and in the risk handbooks and relevant documents of the individual companies.

Furthermore, the NORD/LB Group has also made commitments in the restructuring plan agreed with the European Union (EU) in the year under review which are considered in the risk management.

The NORD/LB Group has, in accordance with MaRisk AT 4.5, implemented a risk organisation system that complies with the risk policies of the Group's risk strategy. The risk organisation comprises structures to guarantee the regulated interaction of all the divisions of the NORD/LB Group's significant companies from a risk point of view involved in the process of risk control. Furthermore, an efficient risk management process with clearly defined tasks and authorities, backed up by an adequate IT infrastructure and qualified employees, ensures smooth procedures. An effective internal control and monitoring system ensures compliance. The aim is to consistently optimise the risk organisation and to adapt it to current requirements.

The NORD/LB Group has implemented risk management processes which cover all divisions. The sub-processes apply to all risk types:

- Risk identification: Identification of the relevant risks (overall risk profile) in the risk inventory based on the risk universe and distinction between material and non-material risks (reviewed at least annually and as and when required)
- Risk assessment: Regular quantitative and / or qualitative assessment of risks using predefined methods
- Risk reporting: Reporting on the risk situation (internal and external, risk-type specific and general, regular and ad-hoc)
- Risk control and monitoring: Limiting and management (acceptance, mitigation, transfer, avoidance) of risks and monitoring of limits (limit / utilisation comparison)

Activities for the ongoing optimisation of the risk organisation include improvement to the internal control system geared to establishing uniform process and risk-oriented structures and procedures. Detailed descriptions of the risk management sub-processes are laid out in the NORD/LB Group's risk handbook and the relevant documents of the individual institutes.

For more detailed information on risk management strategies and processes in accordance with § 322 of the German Solvency Regulation, chapter 5 on the individual risk types is referred to.

3.2 Risk Management Structure and Organisation

Responsibility for the NORD/LB Group's risk management lies with the Managing Board of NORD/LB. The Managing Board coordinates the Group risk strategy and its amendments in the Erweiterter Konzernvorstand (Extended Group Managing Board), which also includes the Chairmen of the Bremer Landesbank, NORD/LB Luxembourg and Deutsche Hypo. NORD/LB CFB, as a subsidiary of NORD/LB Luxembourg, is represented by NORD/LB Luxembourg in the Erweiterter Konzernvorstand. After the Group risk strategy has been passed by the Managing Board of NORD/LB, it is submitted to the Supervisory Board of NORD/LB for its information and discussed with it.

The responsible Chief Risk Officer (CRO) in the Managing Board of NORD/LB bears, in concert with the heads of the market departments, responsibility for drawing up and monitoring the Group risk strategy. This includes the monitoring of material risks including the risk reporting at Group level. At individual institute level responsibility lies with the respective Managing Board or the risk officer.

NORD/LB's Finance and Risk Control Division is responsible for updating and developing the RBC model, continually monitoring compliance and regularly reviewing the risk strategies of the NORD/LB Group and NORD/LB.

Operational risk management is performed decentrally in the Group companies. In order to ensure the greatest possible comparability with regard to the assessment, monitoring, controlling and reporting of all material risks, the instruments used for this purpose are agreed with the significant subsidiaries from a risk point of view. In addition to the Erweiterter Konzernvorstand, various other committees and divisions are involved in the risk management of the NORD/LB Group:

- Konzernsteuerungskreise (Group Control Committees): A system of Konzernsteuerungskreise (KSK), whose members are, depending on the Konzernsteuerungskreis, various members of the Managing Board and divisional heads of the significant companies from a risk point of view, supports the institute-wide control.
- Group Risk Committee: The Group Risk Committee (GRC) is chaired by the Chief Risk Officer. Other permanent members are the Chairman of the Managing Board, the Chief Operating Officer, the heads of the market divisions and the heads of the Central Management Risk Division, the Finance and Risk Control Division, the Research / Economy Division and the credit back office divisions of NORD/LB and the risk officers at Bremer Landesbank, NORD/LB Luxembourg and Deutsche Hypo. Further participants are invited when required. The GRC supports the respective Managing Board in the holistic consideration of risks. The focus of the GRC lies in considering the overall portfolio of the NORD/LB Group taking into account all material risk types and strengthening Group integration.
- Other advising committees (Weitere beratende Gremien): The Konzernsteuerungskreise and Managing Boards are supported by a number of other committees which provide advice in specific areas. These include for example the Asset Liability Committee (ALCO).

The RWA(+) Board is responsible for generating impetus in the operational control of risk-weighted assets (RWA). In this committee the relevant information on RWA and shortfall development and on economic and regulatory equity is analysed and combined in a forecast. In the RWA(+) Board possible measures are compiled, assessed and controlled in respect of their implementation.

The structure and organisation of risk management at the NORD/LB Group compiles with the requirements of MaRisk. The process of risk management is subject to constant review and improvement. Adjustments which may be made cover organisational measures, adjustments to procedures for quantifying risk and the continuous updating of relevant parameters.

On 1 July 2012 the divisions Risk Control and Controlling and the group Cost and Efficiency Management of NORD/LB were consolidated under the Finance and Risk Control Division. The formation of the new competence centre allows the control systems of NORD/LB Group to be further optimised, processes to be arranged more efficiently and the reporting to be more specific and tailored even better to the needs of the various user groups.

In the year under review the NORD/LB Group extended the Group-wide risk control. In future the NORD/LB Group will make more intensive use of standard methods, rules and processes (including the credit rating process for large volume exposures by authorised persons in NORD/LB).

The risk-oriented and process-independent audit of the effectiveness and adequacy of risk management is carried out by the Internal Audit Divisions of NORD/LB and the subsidiaries. As an instrument of the Managing Board, they are part of the internal monitoring process. The aims of Internal Audit also include the monitoring of the effectiveness, efficiency and correctness of business activities. It also facilitates the optimisation of business processes and of controlling and monitoring procedures.

The Group audit department is carried out in addition to the internal audits in the subsidiaries. The focus is on NORD/LB Group's risk strategy, Group-wide risk-bearing capacity, Group accounting and Group reporting, reporting on Group control and the reliability of the internal audits of the subsidiaries. In addition to the Group audits, joint audits of the Group audit with the internal audits (cooperative Group audits) also take place. The objectives, tasks, roles and instruments of the Group audit are defined in a policy.

The treatment of new products, new markets, new sales channels, new services and their variations is regulated decentrally in the new product processes (NPP) in the significant institutes of the NORD/LB Group from a risk point of view taking into account the respective conditions. There is close coordination between the institutes regarding the implementation of NPP.

The essential aim of NPP is to identify, analyse and assess all potential risks for the NORD/LB Group prior to starting the new business. This includes all of the essential audit areas, documentation of the new business activities, their treatment in the overall operational process, the decisions to start the business and where applicable the associated restrictions.

For more detailed information on the structure and organisation of risk management in accordance with § 322 of the German Solvency Regulation, chapter 5 on the individual risk types is referred to.

3.3 Hedging and Mitigating Risk

Various measures for hedging and mitigating risk are undertaken, depending on risk type in question. For more detailed information on hedging and mitigating risk in the system of risk management in accordance with § 322 of the German Solvency Regulation, chapter 5 on the individual risk types is referred to.

3.4 Risk Reporting

The reports drawn up on at least quarterly basis on risk-bearing capacity (RBC reports) constitute the main instrument for risk reporting at Group and individual institute level to the respective Managing Board and the supervisory bodies. Compliance with the specifications of the risk strategies on risk appetite and on the allocation of risk capital to the material risk types is therefore reviewed regularly.

In addition to receiving the report on risk-bearing capacity, the Managing Boards of the institutes subject to the Covered Bond Act (Pfandbriefgesetz) are also informed about risks relating to covered bond business on at least a quarterly basis. These reports prepared at individual institute level meet the requirements of § 27 of the Covered Bond Act.

In general the management approach is applied for risk reporting: internal and external risk reports are always based on the same terms, methods and data.

In addition to risk reporting for the entire bank, data relating to the individual risk types is regularly reported to the Managing Board and to bodies, committees and specialised bank divisions. For details on reporting within the scope of risk management in accordance with §322 of the German Solvency Regulation, chapter 5 on the individual risk types is referred to.

3.5 Risk Types

3.5.1 Credit Risk

Credit risk is a component of counterparty risk and is broken down into classic credit risk and counterparty risk in trading. Classic credit risk defines the risk of loss occurred when a credit borrower defaults or when the credit rating of such a credit borrower deteriorates. Counterparty risk in trading defines the risk of loss occurred when a borrower or contract partner in trading transactions defaults or when the credit rating of such a borrower or contract partner deteriorates. It is broken down into counterparty risk in trading, replacement risk, settlement risk and issuer risk:

- Counterparty risk in trading defines the risk of loss occurred when a borrower defaults or when the credit rating of such a borrower deteriorates. It equates to traditional credit risk and relates to money market transactions.

- Replacement risk defines the risk of the contract partner in a pending transaction with a positive present value defaulting and this transaction having to be replaced with a loss.

- Settlement risk is broken down into advance payment risk and clearing risk. Advance payment risk defines the risk when the bank has completed a payment of the counter-payment not being made by the contract partner or, if payments are offset, the balance not being paid. Clearing risk defines the risk of transactions not being able to be cleared by either party upon or after the expiry of the contractually agreed performance date.

- Issuer risk defines the risk of loss occurred when an issuer or reference entity defaults or when the credit rating of such an issuer or reference entity deteriorates.

In addition to the original credit risk, cross-border capital transfer services involve country risk (transfer risk). This is the risk that, despite the ability and willingness of the individual counterparty to meet payment claims, a loss will occur as a result of overriding government hindrances.

3.5.2 Investment Risk

Investment risk is another component of counterparty risk and defines the risk of incurring losses when making equity available to third parties. A potential loss due to other financial liabilities is also a component of investment risk, unless it was considered in the other risks.

In addition to the original investment risk, cross-border capital transfer services involve country risk (transfer risk).

3.5.3 Market-Price Risk

Market-price risk is defined as the potential losses which may be incurred as a result of changes in market parameters. With market-price risk a distinction is made between interest-rate risk, currency risk, share-price risk, fund-price risk, volatility risk, credit-spread risk in the banking book and commodity risk.

- Interest-rate risk always occurs when the value of an item or a portfolio reacts to changes to one or several interest rates or to changes in full yield curves and when these changes may consequently impair the item. This also includes the credit-spread risk in trading book positions and the liquidity reserve in accordance with the German Commercial Code.

- Credit-spread risk in the banking book defines potential changes in value which would result in the banking book if the credit-spread applicable for the respective issuer, borrower or reference entity used for the market value of the item changed.

- Other partial risks relevant for NORD/LB include the risk that the value of an item reacts to changes in one or more currency exchange rates (currency risk), share prices or share indexes (share-price risk), fund prices (fund-price risk) or volatilities applied for valuing options (volatility risk) and the changes result in a reduction in the items value.

3.5.4 Liquidity Risk

Liquidity risks are risks which may result from malfunctions in the liquidity of individual market segments, unexpected events in lending, deposit or new issue business or deterioration in the bank's own refinancing conditions. The NORD/LB Group understands placement risk to be a component of liquidity risk. It describes the risk of own issues not being placed in the market or only placed at poorer conditions. Liquidity risks are broken down into traditional liquidity risk, refinancing risk and market liquidity risk:

- Traditional liquidity risk is the risk that payment obligations cannot be met or cannot be met on time. Potential causes can be a general disruption in the liquidity of money markets which affects individual institutes or the entire financial market. Market disruptions may in particular result in significant asset classes not being available for use as collateral. Alternatively unexpected events in bank's own lending, deposit or new issue business may also result in liquidity shortages. The focus of the NORD/LB Group consideration is on the respective coming twelve months.

- Refinancing risk constitutes potential declines in earnings resulting from a deterioration in the banks own refinancing conditions on the money market or capital market. The most significant cause in this case is a change in the assessment of the bank's credit rating by other market participants. The focus of consideration here is on the entire range of terms to maturity. By considering the individual currencies, spread risks from cross-currency swaps will also be considered.

- Market-liquidity risk defines potential losses to be borne if transactions need to be concluded at conditions which are not in line with the fair market value due to a lack of liquidity in individual market segments. Market liquidity risks may primarily result from security items in the trading and banking books.

3.5.5 Operational Risk

Operational risk is defined as the risk of incurring losses as a result of the inadequacy or failure of internal procedures, employees and technology or losses which occur as a result of external influences. The definition includes legal risks and reputational risks as secondary risks. The NORD/LB Group understands compliance risk, outsourcing risk, dilution risk and fraud risk to be components of operational risk as well.

- Legal risk defines the risk of losses occurring due to the non- or insufficient consideration of the legal framework specified by legal regulations and case law. Legal risk only exists in the banks external relations.

- Reputational risk defines the risk of a loss occurring due to a loss of confidence among customers, business partners or owners.

- Compliance risk defines the risks of penalties being handed out by courts, authorities or disciplinary bodies as a result of improper procedures, processes and the like (due to non-compliance with laws, regulations, codes of conduct and standards) in the bank's internal relations.

- Outsourcing risk defines the risks resulting from the outsourcing of activities and processes.

- Dilution risk defines the risk relating to the balance and convertibility of a purchased receivable as a result of the borrower of the purchased receivable not being obliged to pay in full.

- Fraud risk defines the risk resulting from other criminal actions against the bank which cause a preventable loss of assets or damage to reputation.

4 Capital Structure and Adequacy

4.1 Capital Structure

The components of capital of the NORD/LB Group included in the summary in accordance with § 10a para. 6 of the German Banking Act comprise the core capital and the supplementary capital allocated to the consolidated companies (companies that belong to the Group) as well as certain deductions.

The core capital of the NORD/LB Group as at 31 December 2012 before half-deductible items totals € 9 360 million and primarily comprises capital paid in, other eligible reserves, a special item for general banking risks in accordance with § 340g of the German Commercial Code, additional capital in accordance with § 10 para. 2a clause 1 no. 8 of the German Banking Act, other capital in accordance with § 10 para. 2a clause 1 no. 10 of the German Banking Act and asset-side differences of which 50 per cent may be recognised.

The capital paid in totalling € 1 666 million comprises the share capital of NORD/LB as the superordinate company (€ 1 607 million) and shares in the share capital or capital stock of subordinate companies (€ 59 million). The share capital under regulatory provisions has increased by € 182 million compared to the end of 2011.

Following the EU-wide bank stress test carried out by the European Banking Authority (EBA) in July 2011, in which contributions from silent partners were not recognised as core Tier 1 capital by the EBA contrary to the applicable regulations in the German Banking Act, the owners of NORD/LB decided in 2011 to convert the contributions from silent partners and other capital instruments totalling € 1 146 million into share capital plus a premium and a capital increase for cash in the amount of € 521 million. Of these capital measures, a total of € 1 389 million were implemented in 2011 and the remaining € 278 million at the start of 2012.

In addition to this, NORD/LB restructured further capital instruments totalling € 400 million into share capital plus a premium to boost its core Tier 1 capital in 2012.

The increase in share capital in 2012 is a result of the measures implemented in the period under review.

Other eligible reserves total € 5 356 million and comprise capital reserves and retained earnings. In 2012 these reserves increased by € 1 358 million primarily due to the premium paid during the implementation of the aforementioned capital measures, the conversion of contributions from silent partners at the subsidiary Bremer Landesbank into share capital plus a premium of Bremer Landesbank and retained earnings from the profit of 2011.

The special item for general banking risks in accordance with § 340g of the German Commercial Code in the amount of € 1 466 million serves to reinforce the capital of the NORD/LB Group.

Additional capital in accordance with § 10 para. 2a clause 1 no. 8 of the German Banking Act totalling € 10 million and other capital in accordance with § 10 para. 2a clause 1 no. 10 of the German Banking Act totalling € 954 million consist entirely of contributions from silent partners. The inclusion as core capital is based from 31 December 2010 on the regulations in accordance with § 10 paras. 2, 2a and 4 of the German Banking Act in conjunction with the transitional regulations in accordance with § 64m of the German Banking Act. Accordingly, contributions from silent partners received before 31 December 2010 are either included as additional capital or other capital. Additional capital is to be included 100 per cent as core capital. Other capital may in accordance with § 10 para. 2 clause 4 of the German Banking Act make up at most 35 per cent of the core capital for solvency reasons.

Other capital which is temporary or involves a repayment incentive for the issuer due to the contractual arrangements may, in deviation to this, make up at most 15 per cent of the core capital for solvency reasons in accordance with § 10 para. 2 clause 3 of the German Banking Act. However, all contributions from silent partners received before 31 December 2010 may, on a transitional basis and in accordance with § 64m para. 1 of the German Banking Act,

- be included until the end of 2020 in full as core capital;
- be neither additional nor other capital, and between 2021 and 2030 not make up more than 20 per cent and between 2031 and 2040 not make up more than 10 per cent of core capital for solvency purposes.

The contributions from silent partners existing as at 31 December 2012 have the following varying contractual arrangements and are to be categorised for inclusion in core capital as follows:

- An indefinite contribution without any cancellation privilege on the part of the subscribers and with the same status as share capital, which does not involve a repayment incentive for the issuer (in total € 10 million), issued in 2011. The interest for this contribution is for the first few years fixed at the capital market yield on the date of issue plus a standard market risk premium, after which it varies on an annual basis in the amount of the respective capital market yield plus a standard market risk premium which is fixed on the date of issue. Interest payments are excluded under certain conditions and are at the sole discretion of the issuer. This contribution meets the requirements of additional capital in accordance with § 10 para. 2a clause 1 no. 8 of the German Banking Act in conjunction with § 10 para. 4 of the German Banking Act.

- Indefinite contributions without any cancellation privilege on the part of the subscribers with priority to share capital which do not involve a repayment incentive for the issuer (in total € 568 million), issued since 2005. Compared to the end of 2011 the volume of these contributions has reduced by € 518 million, as in the year under review several contributions were restructured as part of the aforementioned capital measures into share capital plus a premium. The interest for all of these existing contributions is either fixed at the capital market yield on the date of issue plus a standard market risk premium or it is only fixed for the first few years of the term as already described, after which it varies on an annual basis and amounts to the respective capital market yield plus a standard market risk premium which is fixed on the date of issue. Interest payments are excluded under certain conditions and in some cases such payments are at the discretion of the issuer. All of these contributions meet the requirements of other capital in accordance with § 10 para. 2a clause 1 no. 10 of the German Banking Act in conjunction with § 10 para. 4 of the German Banking Act.

- Indefinite contributions without any cancellation privilege on the part of the subscribers which contractually involve a repayment incentive for the issuer (€ 336 million), issued in 2009. The interest for this contribution is fixed for at least the first ten years of the contract in the amount of the capital market yield at the time of issue plus a standard market risk premium. After this time, and then every further five years of the contract, the interest is reset at the level fixed in the contract at the time of issue. Interest payments are excluded under certain conditions. This contribution meets the requirements of other capital in accordance with § 10 para. 2a clause 1 no. 10 of the German Banking Act in conjunction with § 10 para. 4 of the German Banking Act, but falls due to the repayment incentive resulting from the fixed level of interest in the contract below the above-mentioned upper limit for inclusion in accordance with § 10 para. 2 clause of the German Banking Act of at most 15 per cent of core capital for solvency purposes. The NORD/LB Group complies with this upper limit as at 31 December 2012.

- Indefinite contributions without any cancellation privilege on the part of the subscribers (in total € 50 million), issued in 2001. These contributions may be cancelled by the subscribers or by the issuer. Compared to the end of 2011 the volume of these contributions has reduced by € 531 million, as in the year under review several contributions at the subsidiary Bremer Landesbank were converted into share capital plus a premium. The interest for all of these existing contributions is adjusted after ten years of the contract to the current capital market yield plus a standard market risk premium which is fixed on the date of issue. Interest payments are excluded under certain conditions. These contributions do not fully meet the requirements of other capital in accordance with § 10 para. 2a clause 1 no. 10 of the German Banking Act in conjunction with § 10 para. 4 of the German Banking Act and are therefore only included as other capital in the core capital on a transitional basis in accordance with § 64m para. 1 of the German Banking Act.

Contributions from silent partners eligible for inclusion as other capital make up as at 31 December 2012 13 per cent of core capital for solvency reasons. The NORD/LB Group therefore complies with the above-mentioned upper limit for inclusion in accordance with § 10 para. 2 clause 4 of the German Banking Act of 35 per cent for other capital in core capital for solvency reasons.

The above-mentioned upper limit for inclusion in accordance with § 64m para. 1 of the German Banking Act, according to which contributions from silent participations received before 31 December 2010 which are neither additional nor other capital may from the start of 2021 make up at most 20 per cent of core capital for solvency purposes, is already complied with as at 31 December 2012.

Other core capital components include asset-side differences resulting for all the regulatory investments which are fully or proportionately consolidated and whose carrying amount in the superordinate company exceeds the total of that investment's share capital and reserves. Half of these asset-side differences (altogether approx. € 10 million) are included as core capital.

Furthermore, for regulatory measurement purposes, half of the deductions shown below are deducted from the core capital (a total of € 909 million). The resulting core capital for solvency reasons totalled € 8451 as at 31 December 2012.

The NORD/LB Group's supplementary capital as at 31 December 2012 totalled € 3234 million before half-deductible items and primarily comprised the following components:

- Participatory capital liabilities (totalling € 193 million), which have an original term to maturity of at least ten years. The amount of interest is calculated as the capital market yield on the date of issue or prolongation plus a standard market risk premium. The requirements for inclusion in supplementary capital in accordance with § 10 para. 5 of the German Banking Act have been met.

- Subordinated liabilities (totalling € 3051 million) with original terms to maturity of ten years or more. In the period under review subordinate liabilities totalling € 90 million were issued. The amount of interest for all subordinate liabilities is calculated as the capital market yield on the date of issue or prolongation plus a standard market risk premium. The requirements for inclusion in supplementary capital in accordance with § 10 para. 5a of the German Banking Act have been met.

- The half of asset-side differences to be deducted (totalling € 10 million). The asset-side differences indicated above, half of which are recognised as core capital, are in turn deducted from supplementary capital.

Furthermore, for regulatory measurement purposes, half of the deductions shown below are deducted from the supplementary capital (a total of € 909 million). The supplementary capital for solvency reasons calculated in this way totals € 2325 million as at 31 December 2012.

The deductions from core capital and supplementary capital amounted to € 1818 million as at 31 December 2012 and comprise

- the carrying amounts of investments in accordance with § 10 para. 6 clause 1 nos. 1 and 5 of the German Banking Act

- receivables from subordinated liabilities in accordance with § 10 para. 5 of the German Banking Act,

- deficits in valuation allowances in accordance with § 10 para. 6a no. 1 of the German Banking Act and

- securitisation exposures.

Compared to the end of 2011, deductions have increased by a total of € 151 million primarily due to an increase in deficits in valuation allowances.

For regulatory measurement purposes, half of the total of these deductions is deducted from core capital and half is deducted from supplementary capital.

Table 2 shows the components of capital in the regulatory capital structure in accordance with § 324 para. 2 of the German Solvency Regulation.

Table 2: Capital Structure

(in € million)	31 Dec. 2012	31 Dec. 2011
Share capital paid in	1 676	1 500
of which: Contributed capital	1 666	1 479
of which: Additional capital in accordance with § 10 para. 2a clause 1 no. 8 of the German Banking Act	10	21
Other eligible reserves	5 356	3 998
Other capital in accordance with § 10 para. 4 of the German Banking Act	954	2 003
of which: Other capital, convertible in a debit situation	–	–
of which: Other capital, indefinite and without repayment incentives	568	1 086
of which: Other capital, temporary or with repayment incentives	336	336
of which: Temporarily eligible core capital instruments subject to a transitional regulation, indefinite and without repayment incentives	50	581
of which: Temporarily eligible core capital instruments subject to a transitional regulation, temporary or with repayment incentives	–	–
Special item for general banking risks in accordance with § 340g of the German Commercial Code	1 466	1 425
Asset-side differences	10	9
Other deductions in accordance with § 10 para. 2a clause 2 of the German Banking Act	– 102	– 97
Total core capital in accordance with § 10 para. 2a of the German Banking Act	**9 360**	**8 838**
Total supplementary capital in accordance with § 10 para. 2b of the German Banking Act and tier three funds in accordance with §10 para. 2c of the German Banking Act	**3 234**	**3 556**
Total capital deductions in accordance with § 10 paras. 6 and 6a of the German Banking Act	**– 1 818**	**– 1 667**
of which: Deficits in valuation allowances and anticipated loss amounts for IRBA items in accordance with § 10 para. 6a nos. 1 and 2 of the German Banking Act	– 1 565	– 1 427
Total modified available equity in accordance with § 10 para. 1d of the German Banking Act and eligible tier three funds in accordance with § 10 para. 2c of the German Banking Act	**10 776**	**10 727**

4.2 Capital Adequacy

4.2.1 Approaches for Ascertaining Capital Requirements

4.2.1.1 Credit Risks
In order to calculate equity capital required for credit risks, the NORD/LB Group basically uses the Internal Ratings Based Approach (IRBA).

Promotional institutes, the subsidiary Skandifinanz Bank AG, insurers, the Bremer Landesbank's commercial foreign real estate finance and Deutsche Hypo's retail banking are excluded for an indefinite period from the IRBA. Exposures excluded from the IRBA for an indefinite period are shown in the Credit Risk Standardised Approach (CRSA).

The exposure class of retail is currently still treated for the purpose of the requirements of equity capital by using different approaches (partial use) and is gradually being transferred to the IRBA. For the segment of minor customers without a current account partial use is still applied.

Exposures for which no internal rating procedure is available due to a gap in methodology are also treated as partial use. A regular system of rating controls will ensure that the target level of rating cover of 92 per cent will be achieved by the beginning of 2013.

The CRSA is used for individual business segments at NORD/LB Luxembourg and NORD/LB CFB, i. e. for savings bank guaranteed lending business, current account overdrafts and Lombard loans. Permanent partial use was authorised by the Luxembourg Financial Supervisory Authority Commission de Surveillance du Secteur Financier (CSSF).

Deutsche Hypo currently still uses the CRSA for receivables from central governments, foreign local authorities and companies which do not fall under real estate banking customer rating (temporary partial use). The extension of IRBA authorisation to cover the named exposure classes is planned for 2013.

In the case of securitisation transactions, the choice of method at NORD/LB, Bremer Landesbank and Deutsche Hypo for calculating capital requirements, CRSA or IRBA, also depends on the underlying pool of receivables. More information can be found in Section 5.1.8.2. Securitisation transactions have so far not been relevant for NORD/LB Luxembourg and NORD/LB CFB.

4.2.1.2 Investment Risk and Investment Funds

When calculating the minimum capital requirements, the NORD/LB Group currently treats investments which are not subject to capital deduction fully in accordance with the transition rules and exceptions defined in the German Solvency Regulation. However, it is planned that the IRBA will be used.

Investments that were held in the portfolio prior to 1 January 2008 are treated based on the CRSA grandfathering rule in accordance with § 338 para. 4 of the German Solvency Regulation. Investments that are not covered by grandfathering rule are for the time being indefinitely exempted from the IRBA in accordance with § 70 no. 2 and no. 9 of the German Solvency Regulation and are also backed by equity in accordance with CRSA regulations. Compliance with the materiality threshold is monitored constantly. The same applies for Bremer Landesbank.

NORD/LB Luxembourg uses the grandfathering rule and the indefinite exemptions from the IRBA. The investments made by Deutsche Hypo are also treated using the IRBA or indefinitely exempted from the IRBA. Investments are not relevant for NORD/LB CFB.

Investment funds in the banking book are always treated using the look-through approach. If the look-through approach is not possible, investment shares are allocated to the investments CRSA exposure class. These exposures are then included in the calculation of capital at the simple risk weight for investments in accordance with § 98 of the German Solvency Regulation. Investment funds are not relevant for NORD/LB CFB.

4.2.1.3 Market-Price Risks

With regard to market-price risk, NORD/LB has employed in order to ascertain the regulatory capital requirements an internal risk model for general interest-rate risk, for general and special share-price risks and since mid-2012 for currency risk. The standard approach is used for special interest-rate risks.

Bremer Landesbank generally uses the standard approach, in particular the duration method, for general interest-rate risk. The same applies for NORD/LB Luxembourg, although in this case, share-price risk is irrelevant. For Deutsche Hypo and NORD/LB CFB only currency risk plays a role and this is treated in accordance with the standard approach. As risks relating to commodities have no significant relevance in the NORD/LB Group, no method was implemented here.

4.2.1.4 Operational Risks

The standard approach is used in the NORD/LB Group to calculate the equity capital required for operational risk.

4.2.2 Capital Requirements per Risk Type

Table 3 shows the regulatory capital requirements in accordance with § 325 para. 2 nos. 1–4 and § 330 para. 1 of the German Solvency Regulation for the NORD/LB Group, broken down by significant risk types and the methods employed. As a result of a reduction in volume, with credit risks the fall in risk-weighted assets (RWA) is primarily attributable to a reduction in exposures at default (EAD). Market-price risks have on the whole reduced significantly. Currency risks were included in NORD/LB's internal model, therefore the standard approach now only includes special interest-rate risks. The reduced risk in NORD/LB's internal model is attributable to several components, in particular the reduced risk in the trading book, which is mainly due to the reduction of exposures. With the inclusion of currency risk in the internal model, the method for calculating risks in the trading book changed from addition to a correlated result. In addition, the regulatory weighting factor was reduced from 4.0 to 3.6.

Table 3: Capital requirements

(in € million)	31 Dec. 2012	31 Dec. 2011
1. Counterparty risk	**5 692**	**6 108**
CRSA credit risks	**802**	**831**
Central governments	24	18
Regional governments and local authorities	62	58
Other public-sector entities	5	11
Multilateral development banks	–	–
International organisations	–	–
Banks	46	24
Covered bonds issued by banks	5	2
Corporates	427	443
Retail	133	151
Exposures secured by real estate	66	79
Investment certificates	1	1
Other exposures	11	15
Overdue exposures	22	29
IRBA credit risks	**4 707**	**4 939**
Central governments and central banks	62	64
Banks	495	552
Retail	–	–
Corporates	4 036	4 241
Other non-credit-obligation assets	114	82
Securitisations	**138**	**257**
CRSA securitisation transactions	28	29
IRBA securitisation transactions	110	228
Investments	**45**	**81**
CRSA investment values	38	67
Investment values with method continuation/grandfathering[1]	50	50
IRBA investment values	7	14
– Simple risk-weighted approach	7	14
of which: Listed investments	–	–
of which: Not listed but included in a sufficiently diversified investment portfolio	–	–
of which: Other investments	7	14
– Internal model approach	–	–
– Investment values based on PD/LGD approaches	–	–
2. Market-price risks	**149**	**339**
Market-price risks in the standard approach	67	142
– Interest-rate risks	62	74
of which: Special price risk for securitisation exposures in the trading book	–	–
of which: Special price risk in the correlation trading portfolio	–	–
– Share-price risks	–	–
– Currency risks	5	68
– Commodity risks	–	–
– Other risks	–	–
Market-price risks is in the internal model approach	82	197
3. Operational risks	**387**	**337**
Operational risks in the basic indicator approach	–	–
Operational risks in the standard approach	387	337
Operational risks in the advanced measurement approach	–	–
Total	**6 229**	**6 784**

[1] The reference date was adjusted retrospectively.

4.2.3 Capital Ratios

As shown in Table 4 in accordance with § 325 para. 2 no. 5 of the German Solvency Regulation, the overall ratio in accordance with § 2 para. 6 clause 2 and the core capital ratio of the significant companies of the NORD/LB Group from a risk point of view exceed the regulatory minimum capital ratios of 8 per cent for total capital and 4 per cent for core capital as at the reporting date. The NORD/LB Group and its significant companies from a risk point of view which are subject to independent reporting requirements complied with the applicable regulatory regulations concerning equity capital throughout the year under review.

Compared to the previous reporting date both the overall ratio in accordance with § 2 para. 6 clause 2 of the German Solvency Regulation and the core capital ratio of the NORD/LB Group have risen. The reasons for this are the decrease in RWA and an increase in the core capital of the NORD/LB Group of € 0.552 billion.

Table 4: Capital ratios

	Overall ratio in accordance with § 2 para. 6 clause 2		Core capital ratio[1]	
(in %)	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
Consolidated banking group				
NORD/LB Group	13.8	12.6	10.9	9.4
Parent company (as a single institute)				
Norddeutsche Landesbank Girozentrale	17.8	16.0	14.0	12.0
Subsidiaries				
Bremer Landesbank Kreditanstalt Oldenburg – Girozentrale –	11.4	10.6	8.8	8.6
Norddeutsche Landesbank Luxembourg S. A.	19.3	20.9	16.8	18.2
Deutsche Hypothekenbank (Actien-Gesellschaft)	14.0	11.6	9.9	8.4
NORD/LB COVERED FINANCE BANK S. A.	17.6	19.2	13.4	14.4

[1] Core capital ratio calculated as followed: Core capital for solvency purposes / risk-weighted assets.

4.2.4 Risk-Bearing Capacity

The RBC model constitutes the methodical basis for monitoring compliance with the NORD/LB Group's risk strategies. This monitoring is carried out at group level by NORD/LB's Finance and Risk Control Division and by the respective risk control divisions at individual institute level. The Finance and Risk Control Division's Strategy and Models Department is responsible for the overall control and development of the model.

The aim of the model is to aggregate and duly present the bank's risk-bearing capacity at both institute and Group level. The monitoring and reporting process is conducted regularly and guarantees that the responsible bodies are promptly informed about risk-bearing capacity situation of the significant companies of the NORD/LB Group from a risk point of view and the NORD/LB Group as a whole.

The NORD/LB Group significantly improved its RBC model in 2012. The changes were based among other things on the requirements formulated by the regulatory authority regarding the assessment of internal bank risk-bearing-capacity concepts and the latest industry-wide discussions on this. The objective was also to reinforce the NORD/LB Group's risk management and to consider changes in economic conditions and the associated higher volatility.

The NORD/LB Group's RBC model consists of the three pillars of going concern, gone concern and regulatory framework, in which the respective material risks (risk potential) are compared with the defined risk capital of the individual institutes and the Group.

The improved RBC model assumes the going-concern scenario to be the decisive approach. The overriding objective of this model is the independent continuation of the business based on the NORD/LB Group's current business model even if all of the available coverage is used by risks that have materialised. It compares, using a confidence level of 95 per cent (which is lower than the other two pillars), the economically calculated risk potential with risk capital in the form of free, that means exceeding on defined total capital and core capital ratios, regulatory capital. In addition to this, further risk capital effects are considered in an indexation process.

The second and third pillar are based in terms of risk potential on a higher confidence level of 99.9 per cent. Economically-calculated risk potentials are used for the gone concern, while risk potentials calculated based on the regulatory framework are used for the regulatory capital adequacy. The capital side, both in the gone concern and in the regulatory framework, is based on equity and equity-like components which according to banking regulations are to be classified as equity. In the gone concern the risk capital is adjusted to take into account various aspects (e. g. with the consideration of hidden liabilities). In the event of the capital required to cover risks in the gone concern being consumed, it would basically no longer be possible for the bank to continue business under otherwise changed assumptions.

The gone-concern approach represents a secondary requirement in the RBC model, while the regulatory framework represents a strict secondary requirement. Strategic limits are derived from NORD/LB Group's risk-bearing capacity taking into account the allocations of risk capital in the Group risk strategy based on the going-concern case.

When calculating risk-bearing capacity, risk concentrations are also considered, both within a risk type as well as across risk types. Concentrations within a risk type essentially concern credit risks as the most significant risk type for the NORD/LB Group. These are integrated via the internal credit risk model into the RBC model.

Concentrations across different risk types are considered by stress tests. When selecting the stress scenarios the NORD/LB Group's key business areas and risks are consciously used as guidelines for selection. In the process among other things industries, segments and regions are selected which have a significant impact on the Groups risk situation. These risk concentrations are reported and monitored on a regular basis in the context of risk-bearing capacity with targeted stress tests.

The relevant scenarios are ascertained at NORD/LB Group level and are to be applied consistently in all of the individual companies in order to ensure comparability between the institutes and to ensure that the Group values can be aggregated. At individual institute level further stress tests can be determined which take account of the key business areas. All of the scenarios and parameters are reviewed regularly and if necessary updated.

The developments in the RBC model have been considered for the first time as at the reporting date 31 March 2012; further methodological improvements were made as at 31 December 2012. The reference date 31 December 2011 has been recalculated based on the changes in method. Against the background of economic and regulatory requirements to adjust the bank's stress test instruments, in order to comply for example with the amendment to the Minimum Requirements for Risk Management (MaRisk) and the Minimum Requirements for Recovery Plans (MaSan), in 2013 the relevant procedures and processes will be reviewed and developed.

The utilisation of risk capital with risk potential for the individual risk types and the utilisation of risk capital in the relevant going-concern case for the NORD/LB Group can be found in the risk report in the management report of the NORD/LB Group.

4.2.5 Security Mechanisms at Association Level

In addition to an adequate supply of available capital for the NORD/LB Group, other mechanisms at association level are in place to secure the institute.

NORD/LB is a part of the security reserve of the Sicherungsreserve der Landesbanken und Girozentralen and is also covered by the protection system of the Sparkassen-Finanzgruppe (Savings Bank Financial Group). In addition to the Sicherungsreserve der Landesbanken und Girozentralen this protection system comprises twelve other protection schemes which have been consolidated in accordance with their statutes under the umbrella of the Deutscher Sparkassen- und Giroverband (DSGV, German Association of Savings Banks and Girobanks).

The aim of the protection scheme of the Savings Bank Financial Group is to recognise risks and critical situations among the member banks as early as possible and to initiate counter-measures. In this case the joint liability scheme operates a risk monitoring system with which the risk positions of participating institutes are monitored by the monitoring committees of their respective protection schemes. These committees in turn report to a central transparency committee which watches over the general risk situation of the joint liability scheme.

The joint liability scheme combines the individual protection schemes in a united protection system within the savings bank financial group. The savings bank financial group thus assumes responsibility for the portfolio of its institutes and completely covers customers' deposits from its own resources (section 12 of the Einlagensicherungs- und Anlegerentschädigungsgesetz (German Deposit Guarantee and Investor Compensation Act)). This makes the joint liability scheme a symbol of cooperation and internal stability of the Savings Bank Financial Group.

As a member of the security reserve for Landesbanks and giro centres, Bremer Landesbank is also covered by the joint liability scheme of the Savings Bank Financial Group. NORD/LB Luxembourg and NORD/LB CFB are also secured as subsidiaries via the parent company NORD/LB. Deutsche Hypo is a member of the security reserve as an affiliated institute.

5 Disclosures on Risk Types

5.1 Credit Risk

5.1.1 Credit Risk Management

5.1.1.1 Credit Risk Management Strategies and Processes

For the NORD/LB Group lending business and the management of credit risks is a core competence that is to be permanently developed and extended. The NORD/LB Group sees itself as a reliable universal bank focusing on lending business and it positions itself with its customers accordingly.

In order to meet the specific requirements of each business segment, NORD/LB has established financing principles for the individual market segments which are classified in the strategic business segments as risk-relevant; these cover both market and back office divisions. These principles represent binding guidelines for new lending business among others for ratings of the target customers.

New lending business focuses on concluding agreements with customers with a good to very good credit rating. The NORD/LB Group also concentrates on business with borrowers of good standing in the capital market business.

The controlling of the NORD/LB Group's credit portfolio takes into account opportunities and risks. The aim is to produce competitive profitability and ensure efficiency and flexibility in terms of the active management of credit risk positions in order to minimise unexpected losses.

The NORD/LB Group focuses regionally mainly on domestic business. Its foreign lending business focuses on developed countries and selected emerging markets. Regional concentrations are deliberately realised outside of Germany in the USA, UK and France. In accordance with the business strategy of the NORD/LB Group, the focus is on commercial shipping, aircraft, energy, automotive, real estate and the continually reducing bank portfolio. Exposures are also concentrated on local authorities in Germany.

Credit risk is quantified with the key risk figures expected loss and unexpected loss. Expected loss is determined on the basis of probability of default taking into account recovery rates. The risk premium, which must be collected in order to cover expected loss, is calculated using the same methods throughout the Group.

Unexpected loss for credit risk is quantified Group-wide with the help of an economic credit risk model for different confidence levels and a time frame of one year. The credit risk model used by the NORD/LB Group includes correlations and concentrations in the risk assessment and is subject to an annual review and validation.

The credit risk model calculates the unexpected losses at the level of the overall portfolio. The model used is based on the CreditRisk+ model. Using correlated sector variables, systematic industry effects are represented in the loss distribution. The estimated probability of default (PD) is based on the internal rating method. The loss given default (LGD) is determined on a transaction-specific basis. The credit risk model works with a simulation method which also takes into account specific interdependencies of borrowers, e.g. on the basis of group structures. In addition to default losses, losses that might be caused by rating migrations are also considered.

The methods and procedures for risk quantification are agreed on between the risk control units in the significant Group companies from a risk point of view in order to ensure standardisation throughout the Group. Risk management is performed constantly and decentrally in the Group companies.

5.1.1.2 Credit Risk Management Structure and Organisation

A risk-related organisational structure and the functions, responsibilities and authorisation of divisions involved in risk processes are clearly defined down to employee level. In accordance with the MaRisk, processes in lending business are characterised by a clear organisational separation of the market and back office divisions, right through to management level.

NORD/LB market divisions conduct the operational financing business relating to customers, properties and projects on a national and international level within a framework of specified limits. They are primarily responsible for the core tasks of acquisition and sales. The market divisions are responsible for the initial vote, for structuring conditions and for earnings. In the case of minor-volume, low-risk exposures, the market divisions will in some cases also bear sole responsibility for the risk (unilateral authorisation) as well as responsibility for analysing and observing these risks.

Tasks relating to analysis (including assigning ratings) and risk observation as well as the specification of collateral values are combined in the Credit Risk Management (CRM) back office Division. Real estate and special appraisals are exceptions here; these are carried out in a separate department. The CRM Division is also responsible for the second vote taken for decisions on individual loans. Exposures with a concentration of risks are also subjected to a credit rating process in respect of large exposure management. In a multi-stage reporting system, the Division also prepares segment portfolio reports on selected sub-segments at regular intervals.

The Credit and Securities Management Division in the CRM is responsible for implementing the credit decisions for risk-relevant exposures including the contract documentation and for managing portfolios. With special finance the respective market Division is responsible for these tasks.

The central management of risk concentrations in the NORD/LB Group's credit portfolio is the responsibility of the Credit Portfolio Management Group which is part of the CRM. Concentrations are examined with regard to the size an economic borrower entity in accordance with § 19 para. 2 of the German Banking Act as well as by country and industry.

The processing of non-performing loans or exposures requiring debt readjustment is the responsibility of the Special Credit Management (SCM) Division at NORD/LB. Credits with a rating of 11 on the rating master scale of the DSGV (allocation to the "high risk" category in accordance with the "Initiative Finanzstandort Deutschland" (IFD, initiative for Germany as a financial location)) or worse must be reported to the SCM Division. Other defined risk indicators (e. g. suspicion of behaviour not in the interests of creditors or the initiation of restructuring processes) may also require reporting. The SCM decides whether it will assume full responsibility, whether coaching is to take place or whether the exposure remains in the Market or CRM Division with intensive support. From a rating of 16 (allocation to the IFD Default risk category (non-performing loans)), the SCM Division is obliged to take over responsibility for an exposure. Exceptions are made with both the reporting requirement and assuming of responsibility, for low-risk business and business-specific reasons. For financial institutions including central governments and foreign regional authorities, asset-backed securities (ABS) and corporate bonds, processing takes place in the CRM Division.

Credit decision authorisation is classified in accordance with the total loan eligible and the rating of a borrower. Credit decisions are always taken by an authorised person in a market Division and an authorised person in a back office Division (bilateral authorisation). The second vote is prepared in units independent of the market divisions in accordance with specified criteria. In addition to fulfilling the regulatory requirement of functional separation for credit assessments, this ensures that first-class credit decisions are taken on the basis of unified standards.

The Managing Board is responsible for controlling NORD/LBs credit portfolio. In performing its tasks, the Board consults among other things the GRC, which ensures that a link between individual credit decisions and portfolio management is given and takes into account all risk types. The GRC recommends to the Managing Board various instruments for this purpose such as the ordering of an acquisition stop, the limiting of national, industrial or borrower-related concentrations or making recommendations relating to the placement of exposures and sub-portfolios. Within the general guidelines set by the Managing Board, where necessary the GRC also determines individual strategies for individual borrower entities, countries and industries within the strategic limit systems. The individual credit decision remains the responsibility of the Managing Board.

From a certain volume, decisions are taken by the Managing Board or by the General Working and Credit Committee (AAKA), a sub-committee of the Supervisory Board of NORD/LB. The AAKA participates in the process of granting loans in accordance with an authorisation regulation passed by the Supervisory Board. The acquiring of investments is also subject to a Supervisory Board resolution as is approval for loans to executives.

The Strategy and Models Department of the Finance and Risk Control Division is responsible for the methods for measuring credit risks and for credit risk control instruments. It is responsible together with the Management Information Systems Department for the independent monitoring of credit and investment risk at portfolio level and for the corresponding report system as well as the regulatory reporting system. The Strategy and Models Department is also responsible for the methods used for the economic quantification of counterparty risk.

At Bremer Landesbank independent back office tasks are carried out by the back office department Financing Risk Management. In addition to casting a second vote, it verifies and stipulates rating levels, verifies collateral values, processes and supervises debt restructuring, work-out exposures and loan loss provisions, and shapes the policies and procedures for the lending business. Exposures beyond the scope of rating categories 1 to 8 are supervised more intensively or are handed over for restructuring to the unit bearing the same name. This unit is principally responsible for deciding on how an exposure is to be monitored in future or whether it is to be cancelled and coercive measures are to be implemented by a separate back office unit. The tasks relating to independently monitoring risks at portfolio level and to independent reporting are the responsibility of the risk control Division in Overall Bank Management resp. the group Back Office Management.

Risk management at NORD/LB Luxembourg and NORD/LB CFB is based on the concepts of NORD/LB and is regularly improved in accordance with commercial and regulatory criteria. Credit decisions are made in accordance with the back office vote of the authorised persons in the Credit Risk Management Division of NORD/LB Luxembourg. The independent monitoring of the portfolio is carried out by the Risk Control Division at NORD/LB Luxembourg. NORD/LB's SCM Division and the CRM Division of NORD/LB Luxembourg are responsible for monitoring loans requiring comment or debt restructuring.

The risk management of Deutsche Hypo is performed based on Group-wide standards and is the subject of continual development. The second vote for credit transactions is performed by the back office Division Credit Risk Management. The exposures requiring debt restructuring are looked after by the SCM Division of Deutsche Hypo, either intensively with the goal of out-of-court restructuring or with defaulting counterparties also with the goal of realising collateral. The local Risk Control Division monitors the risks of Deutsche Hypo at portfolio level.

5.1.1.3 Credit Risk Cover and Mitigation

A specific limit is stipulated for each borrower at individual transaction level within the scope of operational limiting in order to manage risks; this has the character of an upper limit. The significant parameters applied for deriving this limit are a borrower's creditworthiness, expressed as a rating, and the funds that are available at the borrower's free disposal for making principal payments when servicing a loan.

Risk concentrations and correlations at portfolio level are shown by quantifying the credit risk potential in the credit risk model. Risk concentrations are also limited by country and industry limits at portfolio level as well as by the Large Exposure Management model for borrower entities. The latter defines a loss-at-default limit, which is dependent on the rating on the basis of which a Group exposure for the categories corporates, financial institutes, special finance and foreign regional authorities is classified as being normal, as bearing risk concentration or bearing heavy risk concentration. The exposure limits are based on the risk-bearing capacity of the NORD/LB Group.

Methods of mitigating credit risk are described in section 5.1.7.

5.1.1.4 Credit Risk Reporting

NORD/LB's Finance and Risk Control Division draws up among other things a Credit Portfolio Report which shows and analyses all the significant structural features and parameters required for controlling the credit portfolio of the NORD/LB Group. The Credit Portfolio Report complements the Risk-Bearing Capacity Report and includes in-depth analyses and stress scenarios relating to the credit portfolio. It is submitted to the Managing Board on a quarterly basis and is further specified for individual sub-segments by Industry Portfolio Reports from the Credit Risk Management Division.

The Managing Board of NORD/LB also receives from the CRM further regular reports and reports as and when required on the credit portfolio of the NORD/LB Group and NORD/LB, e.g. on risk concentrations with borrower entities, country and industry concentrations and commitments which need to be monitored (credit watchlist).

At Bremer Landesbank the Managing Board is informed of credit risks within the scope of the credit risk report. The credit risk report is prepared on a quarterly basis and supplements the monthly RBC report. The Managing Board also receives on a monthly basis a report on an individual borrower basis on intensive and problem exposures and a report to identify and monitor risk concentrations at the level of borrower entities (large exposure management).

For NORD/LB Luxembourg and NORD/LB CFB the Financial Reporting Division prepares together with the Credit Risk Management Division a counterparty risk report on a quarterly basis as part of the management information system for the Managing Board and the Credit Risk Committee in order to make existing risks and risk concentrations transparent and to initiate measures where necessary.

Deutsche Hypo prepares a risk report on a quarterly basis in accordance with the requirements of MaRisk. This report informs the Managing Board and the Supervisory Board in detail about the bank's risk situation.

5.1.2 Credit Portfolio Structure

Tables 5 to 7 show the volume of exposure values by credit exposure excluding investment exposures and securitisations in accordance with § 327 para. 2 nos. 1–4 of the German Solvency Regulation. The exposures are broken down by industry, region and residual contractual maturity. Exposure values were ascertained prior to the inclusion of credit risk mitigation methods and after inclusion of the credit conversion factor (CCF) in accordance with § 48 and § 99 of the German Solvency Regulation. The credit equivalent amount was reported for derivative instruments.

Table 5: Credit exposures by industry

	Credits, commitments and other non-derivative off balance sheet assets		Securities		Derivative financial instruments	
(in € million)	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
Financing institutes/insurance companies	71 751	65 176	33 904	36 441	5 595	6 620
Service industries/other	64 950	64 923	21 629	21 347	2 582	2 523
Transport/communications	28 819	30 150	393	509	706	944
Manufacturing	5 461	6 465	395	649	575	1 005
Energy, water and mining	11 311	9 963	493	1 049	574	685
Trade, maintenance and repairs	3 277	3 078	33	47	129	202
Agriculture, forestry and fishing	1 647	1 610	28	28	7	3
Construction	2 254	2 620	49	31	138	131
Total	**189 469**	**183 984**	**56 923**	**60 101**	**10 306**	**12 114**

Table 6: Credit exposures by region

	Credits, commitments and other non-derivative off balance sheet assets		Securities		Derivative financial instruments	
(in € million)	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
Euro countries	162 887	155 120	50 363	50 473	7 489	7 981
of which: Germany	138 364	133 765	32 325	31 555	3 964	4 070
Rest of Europe	9 764	9 982	2 294	3 440	1 639	2 158
North America	7 410	9 162	2 928	3 648	1 058	1 460
Central and South America	2 024	1 988	179	247	20	84
Middle East/Africa	1 115	1 164	20	91	1	1
Asia/Australia	4 233	3 763	1 140	1 189	98	319
Others	2 036	2 806	–	1 013	–	110
Total	**189 469**	**183 984**	**56 924**	**60 101**	**10 306**	**12 114**

Table 7: Residual contract maturities

(in € million)	Credits, commitments and other non-derivative off balance sheet assets		Securities		Derivative financial instruments	
	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
> 0 years to ≤ 1 year	49 030	42 915	7 458	8 765	1 476	2 826
> 1 year to ≤ 5 years	41 184	41 480	31 812	32 018	3 817	5 296
> 5 years, no term	99 255	99 589	17 654	19 319	5 013	3 992
Total	**189 469**	**183 984**	**56 924**	**60 101**	**10 306**	**12 114**

The audit in accordance with § 327 para. 2 no. 1 of the German Solvency Regulation found that the figures reported as at 31 December 2012 did not differ significantly from the average figures for the period under review.

5.1.3 Loan Loss Provisions

Exposures are reviewed at regular intervals, i. e. in a system of scheduled loan monitoring, in order to ascertain whether the claims of the NORD/LB Group are recoverable or whether interest and principal payments appear to be totally or partly at risk. A review is also carried out when negative information is received (early warning indicators) about a borrower, for example information relating to the borrowers financial situation, collateral and industry environment as well as when establishing the reason for default (and issuing a default rating). Objective indications which might result in the need for a valuation allowance are for example the default on interest and capital payments or a delay in such payments of more than 90 days and considerable financial difficulties on the part of the debtor.

Since reports in accordance with the German Solvency Regulation are currently made on the basis of the accounts prepared in accordance with the German Commercial Code in the NORD/LB Group, information is also provided on risk provisions in accordance with the German Commercial Code at this point. For information on the accounting policies for risk provisions in accordance with IFRSs the notes to the consolidated financial statements (Note 8) in the annual report are referred to.

For acute counterparty risks relating to lending business reported in the balance sheet, if there are objective indications of a permanent loss in value NORD/LB Group makes specific valuation allowances and lumpsum specific loan loss provisions. A need for loan loss provisions is based on a present value consideration of anticipated interest and redemption payments which are still expected as well as on earnings from the realisation of collateral.

NORD/LB takes account of latent counterparty risk relating to transactions with non-banks for which no specific valuation allowances are established by establishing lumpsum loan loss provisions. Risks relating to off-balance sheet transactions (guarantees, endorsement liabilities and loan commitments) are accounted for by a loan loss provision for risks from lending business.

Irrecoverable loans of up to € 10 000 for which there is no specific valuation allowance are written off immediately. Payments received for written-off loans and advances are recognised in profit or loss.

In accordance with § 327 para. 2 nos. 5 and 6 of the German Solvency Regulation, Tables 8 to 10 show non-performing loans and loans in default excluding investment exposures and securitisation transactions by industry and region, and the development of risk provisions in the reporting period. In the classification by industry, retail business is also reported. Lumpsum specific loan loss provisions are included in the specific valuation allowances. NORD/LB Luxembourg and NORD/LB CFB have been included with general loan loss provisions in accordance with IFRSs. Lumpsum loan loss provisions and general loan loss provisions, direct write-offs and receipts for written-offs are reported as a total amount and are not broken down by industry or region.

In order to distinguish between non-performing loans and loans in default, the three default rating classes 16 to 18 are used taking into account the default criteria in accordance with § 125 of the German Solvency Regulation. Rating 16 covers the default reasons of default of payment / overdrawn for more than 90 days and unlikely repayment. Rating 17 covers the default reasons of restructuring / rescheduling of debts / capital reconstruction and impairment / write-down. Under rating 18 the default reasons of rating-induced cancellation / repayment (only DSGV method), complete write-off / abandonment, factoring with significant rating-induced loss and insolvency (request) / coercive measures are found.

For rated CRSA and IRBA positions, all the non-performing loans are equivalent to rating grades 17 and 18. All the remaining past-due receivables are included in rating grade 16. Unrated CRSA positions in the past due exposure class are allocated to the respective category on the basis of specific characteristics. Exposure values are stated.

Table 9 also includes for the regions the changes in specific valuation allowances, lumpsum loan loss provisions, general loan loss provisions, direct write-offs and receipts for written-off loans. This reporting goes beyond the requirement of § 327 para. 2 no. 5 of the German Solvency Regulation, but was chosen for reasons of transparency and uniformity – consistent with Table 8 with the breakdown by industry.

Table 8: Non-performing loans and loans in default by industry

(in € million)	Non-performing loans and loans in default (requiring a write-down)	Specific valuation allowances	Lumpsum specific/general loan loss provisions	Provisions	Changes in specific valuation allowances	Changes in lumpsum specific/general loan loss provisions	Changes in provisions	Direct write-offs	Receipts for written-off loans	Defaulted loans (not requiring a write-down)
Financing institutes/insurance companies	92	135		4	64		– 31			17
Service industries/other	1 263	547		31	36		15			249
Transport/communications	2 605	707		31	276		11			1 378
Manufacturing	327	78		23	– 31		11			37
Energy, water and mining	86	54		22	11		14			1
Trade, maintenance and repairs	62	22		0	– 7		0			15
Agriculture, forestry and fishing	12	6		1	– 1		– 0			7
Construction	111	75		14	– 6		1			35
Retail	36	81		1	1		– 12			20
Total 31 Dec. 2012	**4 595**	**1 704**	**217**	**126**	**343**	**– 41**	**9**	**95**	**15**	**1 759**
Total 31 Dec. 2011	3 641	1 361	259	118	60	28	– 68	84	17	1 963

Table 9: Non-performing loans and loans in default by region

(in € million)	Non-performing loans and loans in default (requiring a write-down)	Specific valuation allowances	Lumpsum specific/general loan loss provisions	Provisions	Changes in specific valuation allowances	Changes in lumpsum specific/general loan loss provisions	Changes in provisions	Direct write-offs	Receipts for written-off loans	Defaulted loans (not requiring a write-down)
Euro countries	3 954	1 463		107	302		26			1 680
of which: Germany	3 372	1 278		99	276		28			1 493
Rest of Europe	328	151		18	44		14			7
North America	194	72		1	– 2		– 6			70
Central and South America	13	9		–	6		– 25			–
Middle East/Africa	–	–		–	–		–			–
Asia/Australia	105	0		–	– 8		–			2
Others	–	10		–	1		–			–
Total 31 Dec. 2012	**4 595**	**1 704**	**217**	**126**	**343**	**– 41**	**9**	**95**	**15**	**1 759**
Total 31 Dec. 2011	3 641	1 361	259	118	60	28	– 68	84	17	1 963

Table 10: Development of risk provisions

(in € million)	Opening balance for the period	Adjustments/ allocations in the period	Reversal	Utilisation	Exchange rate related and other changes	Closing balance for the period
Specific valuation allowance	1 361	958	324	220	– 27	1 704
Lumpsum specific/ general loan loss provisions	259	13	56	–	– 0	217
Provisions [1]	117	91	81	17	19	126

[1] The opening balance was adjusted retrospectively.

5.1.4 Information on IRBA Exposures

5.1.4.1 Internal Rating Methods

In order to assess credit risks in the NORD/LB Group, each borrower is rated within the framework of an initial or annual credit rating process and a cause-related rating or credit rating category is also determined for each borrower. The rating modules employed were either developed in various cooperation projects conducted by the Savings Bank Financial Group or the Landesbanks or they were developed internally by NORD/LB.

The classification is based on the Standard-IFD-Rating-Scale which the banks, savings banks and associations in the “Initiative Finanzstandort Deutschland” (IFD, initiative for Germany as a financial location) have agreed on in order to improve comparability between the rating levels of the individual banks. The rating classes of the 18-step DSGV rating master scale used in the NORD/LB Group can be transferred directly into the IFD classes.

NORD/LB uses segment-related rating methods for estimating the anticipated probability of default of an external counterparty. The methods developed in cooperation projects are standardised to comply with the probabilities of default in the DSGV rating master scale. The master scale shows risks in comparable stages, makes the ratings of various segments comparable and facilitates communication. It is also comparable with external ratings. Each rating method results in a discrete probability of default (PD) as a measure of the expected rate of default and the related rating grade. Both the rating excluding transfer risk (local currency rating) and the rating after offsetting a transfer risk (foreign currency rating) are reported.

At present 14 internal rating methods developed by NORD/LB in collaboration with its cooperation partners have been authorised by the regulatory authorities for the IRBA system. The rating methods for country and transfer risks as well as for international authorities are predominantly allocated to the Central Government exposure class, and the rating method for banks to Banks exposure class. The other rating methods are all included in the Corporate exposure class, i. e. corporates, insurance companies, leasing companies, Standard-Rating, KundenKompaktRating (minor customer rating), ImmobiliengeschäftsRating (real estate business rating), ship financing, aircraft financing, project financing, international real estate financing and SPC Real Estate Leasing.

NORD/LB also employs a rating classification method in accordance with the Internal Assessment Approach (IAA) which was developed internally and has also been authorised by the regulatory authorities for securitisation transactions. In this case a rating grade in accordance with the scale of the rating agency Standard & Poor’s is ascertained for IAA-eligible securitisation positions. Detailed information on the internal rating procedure for securitisations can be found in section 5.1.8.2.

The allocation of borrowers to the rating systems is regulated by the scope of application defined in the rating process. The principle of dual control is applied for all the ratings. A rating can only be released in this case by the relevant back office unit.

Retail banking transactions with private customers were still shown in the CRSA in 2012, so that SparkassenKundenScoring (savings bank customer scoring) based on an automatic scoring procedure were not yet employed in regulatory terms. The IRBA suitability test took place in the year 2012, the switch to IRBA in the reporting is planned for 2013.

There is no rating procedure for investments. If they are processed in the IRBA system, the simple risk weight in accordance with § 98 of the German Solvency Regulation is used.

The rating and scoring methods named, with the exception of the rating method for securitisation transactions, were developed in association projects, with NORD/LB cooperating with the savings bank organisation. They are updated, validated and improved by the maintenance units of the DSGV (Sparkassen Rating und Risikosysteme (SR) GmbH, Berlin) and the Landesbanks (Rating Service Unit (RSU) GmbH & Co. KG, Munich).

Mathematical-statistical methods are used to develop the processes. On the one hand (borrower-oriented) scorecard methods which assess quantitative and qualitative factors are used. These are converted to point scores and allocated to probabilities of default and rating grades in the form of a total number of points. On the other hand (asset-related) simulation methods in which projected payment flows are analysed and in turn supplemented with qualitative information are also used. A common element of all the methods is that they assess a credit rating on the basis of characteristics relevant to creditworthiness and condense them to produce a rating grade that is calibrated on the PD master scale.

The rating methods are all subjected to an annual process of validation comprising both quantitative and qualitative analyses. In this case rating factors, the definition and the calibration of methods, data quality and the entire structure of the model are reviewed on the basis of statistical and qualitative analyses as well as user feedback. The aim of calibration here is to match the empirical defaults actually observed as closely as possible to the probabilities of default predicted with the help of the rating methods.

In NORD/LB the Strategy and Models Department in the Finance and Risk Control Division is responsible for monitoring counterparty risk. It is responsible for controlling ratings, which must be done by each institute, in an internal validation of rating methods. This includes the following tasks:

- Administrating and supervising the rating methods
- Cooperating in SR/RSU validation activities
- Proving the representativeness of the rating methods based on data pooling
- Monitoring and reporting rating results and histories
- Implementing and monitoring the default and recovery concept
- Ensuring the correct application of the rating methods and communicating the results of plausibility tests

For counterparties which cannot be allocated to any of the specified rating methods, a quality-based credit rating method is used, with credit ratings ranging from A (very good) to F (undergoing liquidation).

Bremer Landesbank basically uses the same rating method as NORD/LB. NORD/LB Luxembourg and NORD/LB CFB assess credit risk in close cooperation with NORD/LB on the basis of the rating methods specified. Deutsche Hypo uses the same rating method as NORD/LB for real estate banking customers and loans to countries and international regional authorities within the scope of IRBA. Other rating methods are in use for banks at Deutsche Hypo; these are gradually being replaced by the NORD/LB method.

5.1.4.2 Using Internal Assessments for Purposes Other than Ascertaining Risk-Weighted Exposure Values in Accordance with the IRBA

In addition to ascertaining risk-weighted exposure values, internal estimations of the PD and the LGD are important parameters for risk management and credit processes.

In preliminary costing (pricing) target margins, i. e. minimum margin and full-cost margin, are calculated. In the credit pricing calculator (CPC) for risk-adjusted pricing in lending business, the probabilities of default from internal rating procedures and estimated loss rates are included in calculating risk cost as a premium for expected loss. The calculation of equity costs as a premium for unexpected loss is based on the probabilities of default associated with the internal ratings and the regulatory loss rates.

As already described in section 5.1.1.2 on credit risk management structure and organisation, the level of credit decision authority is also contingent on the rating of a borrower. Allocation to the segment for problem loans and the authority of the SCM Division is undertaken on the basis of rating grades.

The NORD/LB Group regulates its risk-bearing capacity in accordance with economic aspects. The results of the internal rating procedures are included in the examination of the risk-bearing capacity. Details on the RBC model can be found in section 4.2.4 on risk-bearing capacity.

5.1.4.3 Credit Volumes and Losses in the IRBA Portfolio

Table 11 shows the total credit volume included in the IRBA, broken down by PD grades, in accordance with § 335 para. 2 nos. 1 and 2a and c of the German Solvency Regulation. In addition to the exposure at default (EAD), average probabilities of default (ØPD) and average risk weights (ØRW) are reported. Exposure values after credit risk mitigation are used as a basis.

Retail business is not included since this is handled in the CRSA system. With regard to tables 11 and 12, investments only need to be disclosed as a separate portfolio when the PD/LGD approach is used for investment exposures in the banking book. This currently does not apply in the NORD/LB Group. A separate presentation of items in accordance with § 335 para. 2 no. 1 of the German Solvency Regulation, for which separate LGD and CCF estimations are made, is not carried out since the advanced IRBA is not relevant for the NORD/LB Group.

With the average probabilities of default a slightly negative trend has been noticed compared to the previous year. The average PD (not including default) has worsened from 1.0 per cent to 1.1 per cent, while the average risk weight (not including default) has worsened from 48.0 per cent to 49.4 per cent.

Table 11: Total credit volume by PD grades (not including retail)

Portfolio	EAD (in € million)	Ø PD (in %)	Ø RW (in %)
		0 % ≤ PD ≤ 0,5 %	
Central governments	6 362	0.0	6.3
Banks	35 548	0.1	16.8
Corporates	41 906	0.2	34.0
Investments	–	–	–
Total 31 Dec. 2012	**83 816**	**0.1**	**24.6**
Total 31 Dec. 2011	93 780	0.1	24.5
		0,5 % < PD ≤ 5 %	
Central governments	258	0.8	89.7
Banks	1 674	0.8	64.1
Corporates	25 765	1.5	93.2
Investments	–	–	–
Total 31 Dec. 2012	**27 697**	**1.5**	**91.4**
Total 31 Dec. 2011	27 593	1.5	95.4
		5 % < PD ≤ 100 %	
Central governments	10	6.7	322.9
Banks	37	7.9	186.2
Corporates	5 929	13.0	203.1
Investments	–	–	–
Total 31 Dec. 2012	**5 975**	**13.0**	**203.1**
Total 31 Dec. 2011	6 075	11.9	195.0
		Total (not including default)	
Central governments	6 630	0.1	10.0
Banks	37 258	0.1	19.1
Corporates	73 600	1.7	68.3
Investments	–	–	–
Total 31 Dec. 2012	**117 488**	**1.1**	**49.4**
Total 31 Dec. 2011	127 448	1.0	48.0
		Default	
Central governments	0	100.0	0.0
Banks	0	100.0	0.0
Corporates	5 303	100.0	0.0
Investments	–	–	–
Total 31 Dec. 2012	**5 303**	**100.0**	**0.0**
Total 31 Dec. 2011	4 908	100.0	0.0

Table 12 shows a comparison of expected and actual losses incurred in lending business for the current and two previous reporting periods in accordance with § 335 para. 2 nos. 4 and 6 of the German Solvency Regulation.

The loss estimation in this case is defined as the expected loss after credit risk mitigation and is based on the assumptions for regulatory loss rates in the event of default in accordance with § 93 and § 94 of the German Solvency Regulation. This is the expected loss of risk assets which have not defaulted in traditional lending business, i.e. excluding securities in the banking book and excluding derivatives. Traditional off-balance sheet business, such as credit commitments, is taken into account.

Actual losses comprise special valuation allowances and direct write-offs less receipts for written-off loans. They are only shown as a total amount and are not broken down by portfolio. Compared to the previous reporting period actual losses have increased by € 22 million. The shipping portfolio was also the most affected segment for valuation allowances, but also for write-offs. Write-offs mainly concerned losses related to the sale of assets or restructuring.

Table 12: Expected and actual losses in lending business

	1 Jan. 2012 – 31 Dec. 2012		1 Jan. 2011 – 31 Dec. 2011		1 Jan. 2010 – 31 Dec. 2010	
(in € million)	Expected loss	Actual loss	Expected loss [1]	Actual loss	Expected loss [1]	Actual loss
Central governments	1		2		3	
Banks	12		15		17	
Corporates	1 792		529		536	
Investments	–		–		1	
Total	**1 806**	**326**	**546**	**304**	**558**	**119**

[1] The reference date was adjusted retrospectively.

5.1.5 Information on Standard Risk-Weighted CRSA and IRBA Exposures

The rating agencies Standard & Poor's, Moody's Investor Service Ltd. and Fitch Ratings were named for the purpose of risk weighting CRSA exposures and securitisation exposures.

External ratings are used for issuer, issue and country credit rating assessments, with the issue rating initially being used as a basis; the issuer rating is only referred to in the absence of an issue rating. Issue ratings are not applied to unrated CRSA exposures (e.g. loans). Country classifications by export insurance agencies are not taken into account.

Bremer Landesbank does not use any external ratings for CRSA exposures. Deutsche Hypo has also chosen the rating agencies Standard & Poor's, Moody's Investors Service Ltd. and Fitch Ratings for the CRSA exposure classes central governments, regional governments and local authorities, other public-sector entities, multilateral development banks, corporates and securitisation transactions. NORD/LB Luxembourg and NORD/LB CFB have only named Standard & Poor's and use the ratings for the central and regional government and bank exposure classes.

In accordance with § 328 para. 2 of the German Solvency Regulation, Table 13 contains an overview of CRSA exposure values before and after credit risk mitigation. CRSA credit risk mitigation techniques take account of indemnities and financial collateral. Mortgage liens as collateral are not considered as mitigating credit risk in the CRSA; instead the secured receivables are reported in the exposure class "exposures secured with real estate".

In some cases exposure values are higher in the after credit risk mitigation column. This is due to the allocation of exposure values or parts of exposure values at other risk weights after risk mitigation as well as from IRBA exposures in accordance with § 84 para. 1 of the German Solvency Regulation which are secured by a CRSA guarantor and are hence reported as CRSA exposures after risk mitigation.

IRBA exposure values are also shown in accordance with § 329 para 2 of the German Solvency Regulation, for which a simple risk weight is applied for investments (investment funds without look-through).

With the introduction of aircraft weightings, no exposures are reported in the IRBA with simple risk weights.

Table 13: Counterparty risk exposures for portfolios in the CRSA and IRBA on application of regulatory risk weights

	Volume of exposure values (in € million)					
	CRSA Before credit risk mitigation		CRSA After credit risk mitigation		IRBA (special financing and investments)	
(in %)	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
0	105 111	93 835	103 517	95 165	–	1
10	76	215	76	215	–	–
20	3 986	4 636	4 243	4 724	–	–
35	119	342	1 563	1 788	–	–
50	1 185	1 157	1 106	1 161	–	3
70	–	–	–	–	–	41
75	3 812	4 090	2 216	2 511	–	–
90	–	–	–	–	–	–
100	11 446	11 326	8 267	8 300	–	–
115	–	–	–	–	–	–
150	187	238	165	211	–	–
190	–	–	–	–	–	–
250	–	–	–	–	–	14
290	–	–	–	–	–	–
350	–	–	–	–	–	–
370	–	–	–	–	24	26
1250	–	–	–	–	–	–
Capital deduction	–	–	–	–	–	–

5.1.6 Derivative Counterparty Risk Positions and Netting Positions

The NORD/LB Group employs derivative financial instruments for securing purposes in asset/liability management. Trading is also conducted in derivative financial transactions. Derivative financial instruments in foreign currencies are mainly concluded as forward-exchange contracts, currency swaps, interest-rate/currency swaps and currency options. Interest-rate derivatives primarily comprise interest-rate swaps, forward rate agreements, interest-rate futures and interest-rate options. Futures contracts are also concluded for fixed interest-rate securities. Equity derivative agreements are mainly concluded as equity options and equity swaps. Credit derivatives are also used.

Netting agreements covering derivatives are used in accordance with § 207 of the German Solvency Regulation. Eligible netting positions from derivatives are recognised at their marked-to-market replacement cost in accordance with § 211 para. 2 of the German Solvency Regulation. The net measurement base for netting positions from derivatives is the amount resulting from the difference of positive and negative fair values of the transactions covered by the netting agreement plus a regulatory premium. The LeDIS system is used to check eligibility for netting.

Internal capital allocation for derivative counterparty risk positions and netting positions is carried out as part of the allocation of equity to credit risks described in section 4.2.4 on risk-bearing capacity.

Trade businesses are only entered into with contractual partners for whom counterparty limits have been granted. All the trades concluded with a specific counterparty are offset against this limit. The risk subject is the counterparty/contractual partner for the trade. Replacement risks and settlement risks are taken into account in terms of limit utilisation.

Replacement risk measures the risk that, in the event of default by a counterparty, a loss will be incurred by transactions with a positive fair value having to be settled at a loss. § 19 of the German Solvency Regulation is hence applied for current potential replacement costs and § 20 of the German Solvency Regulation for expected future increases in current potential replacement costs.

In terms of the limiting of credits to counterparties the same rules apply as those described in section 5.1.1.3 for covering and mitigating credit risks.

With regard to collateral, reference is made to section 5.1.7 on credit risk mitigation techniques.

Provisions/impairments are recognised to account for the risk of losses. More information can be found in section 5.1.3 on risk provisions.

A downgrade in NORD/LBs external rating would not have any significant effect on collateral to be provided since NORD/LB generally does not accept any such contractual terms.

The measurement base for derivative counterparty risk positions follows the current exposure method. Eligible netting positions from derivatives are included at marked-to-market replacement cost. Table 14 shows the valuation of derivative counterparty risk positions before and after netting and collateral in accordance with § 326 para. 2 no. 1 of the German Solvency Regulation. The term "positive replacement cost" means the current potential replacement cost in accordance with §19 of the German Solvency Regulation. This is equivalent to the current positive fair value.

Table 14: Positive replacement costs

(in € million)	Positive replacement costs before netting and collateral	Netting options	Eligible collateral	Positive replacement costs after netting and collateral
Interest rate-based contracts	14 714			
Currency-based contracts	1 465			
Equity/index-based contracts	65			
Credit derivatives	125			
Commodity-based contracts	24			
Other contracts	–			
Total 31 Dec. 2012	**16 394**	**9 376**	**2 194**	**4 824**
Total 31 Dec. 2011	13 979	8 399	1 626	3 954

The counterparty risk to be allowed for in accordance with § 326 para. 2 no. 2 of the German Solvency Regulation is ascertained with the current exposure method and can be seen in Table 15. The counterparty risk position is determined here as a positive replacement cost after netting and collateral plus an add-on for expected future increases in value.

Table 15: Counterparty risk

(in € million)	Original exposure method	Current exposure method	Standard method	Internal model
Total 31 Dec. 2012	**–**	**9 095**	**–**	**–**
Total 31 Dec. 2011	–	7 934	–	–

Table 16 shows hedge transactions with credit derivatives in accordance with § 326 para. 2 no. 3 of the German Solvency Regulation, which are used in terms of the German Solvency Regulation to mitigate risk.

Table 16: Credit derivatives – nominal value of hedge transactions

	Nominal value of hedge transactions	
(in € million)	31 Dec. 2012	31 Dec. 2011
Credit derivatives (assignees)	65	346

Table 17 shows a breakdown of the nominal value of credit derivatives in acquisitions and sales in accordance with § 326 para. 2 no. 4 of the German Solvency Regulation. The NORD/LB Group did not conduct any intermediation activities for credit derivatives in the period under review.

Table 17: Credit derivatives – purpose

	Used in the banks own credit portfolio				Brokerage activities	
	Purchased		Sold			
(in € million)	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
Credit Default Swaps	462	1 250	4 558	7 239		
Total Return Swaps	–	–	693	706		
Credit Linked Notes	–	–	–	–		
Credit Options	–	–	–	–		
Others	–	–	–	–		

5.1.7 Credit Risk Mitigation Techniques

5.1.7.1 Collateral Management

For the assessment of credit risks, in addition to the credit rating of borrowers or counterparties reflected in the rating, the customary bank securities available and other risk reduction methods are of importance. The NORD/LB Group therefore accepts domestic and foreign securities in the form of property and rights (collateral) to reduce credit risk. When accepting securities the cost-benefit relationship of the security is considered.

The securities are assessed both at the time the loan is granted and during the subsequent ongoing (normally at least yearly) monitoring as to whether they appear to be disposable at the assumed value based on foreseeable economic developments during the (remaining) term of the loan. They are therefore reviewed on a case-to-case basis as to whether the valuation appears to be justified based on the respective type of security and based on its legal and economic applicability in respect of the person of the borrower and the type of loan. If factors relevant to the assessment have changed, the assessment is adjusted accordingly.

The credit guidelines and lending principles of the NORD/LB Group specify which fundamental types of security and the maximum amount which may be lent against the collateral (lending limit). Sureties, credit securities similar to sureties, assignments of receivables and other rights, chattel mortgages, property, receivables and other rights and collateral assignment of chattel are accepted as credit security. Other securities can be contracted with the borrower, but these do not reduce the unsecured portion of the exposure.

The legal endorsement of collateral is maintained in the dedicated Collateral Management System. This also forms the basis for the inclusion of collateral when ascertaining minimum capital requirements and for regulatory reports.

In order to ensure the legal validity and enforceability of collateral, standard agreements are mainly used. In addition to this, external legal opinions are obtained resp. the preparation of contracts is assigned to authorised law firms. At the same time the relevant legislation is monitored continually. For foreign collateral, monitoring is performed by international law firms.

5.1.7.2 Collateral to Ease Equity Requirements

The NORD/LB Group has been authorised by the German Federal Financial Supervisory Authority (BaFin) to use mortgage collateral, other IRBA physical collateral, guarantees and financial collateral as credit risk mitigation techniques to ease capital requirements. Internal processes and systems operated ensure that only collateral which meets all the requirements of the German Solvency Regulation in terms of credit risk mitigation techniques is employed.

Mortgage collateral relate to commercial and residential real estate. The properties are generally valued by independent internal appraisers and also by external surveyors appointed by the Valuation Department should this become necessary. The market fluctuation concept of the German Banking Industry Committee (Deutsche Kreditwirtschaft (DK)) is used to help continually monitor property values. This method is recognised as a statistical method in accordance with § 20a para. 6 of the German Banking Act. For the properties valued using the market fluctuation concept, the values are reviewed every three years by the internal appraisers if the mortgage lending value of property and loans secured by the property exceeds specified limits. For all other properties, this review takes place every year.

In the category other IRBA physical collateral, ships (NORD/LB and Bremer Landesbank), aircraft, engines (all only NORD/LB) and wind energy plants (only Bremer Landesbank) are used to ease equity requirements.

Ships and aircraft must be entered in a public register and fulfil certain requirements such as marketability and age. An additional requirement in the case of ships is that they must have been constructed under the supervision of a recognised classification society and possess class certification issued by a classification society recognised by the German Banking Industry Committee. Aircraft must have been awarded internationally-recognised type and air transport approval. The initial valuation and valuation reviews of ships and aircraft are carried out by the bank's independent internal appraisers on the basis of external reports and they have to be carried out at least once a year to meet regulatory requirements.

The eligibility of engines for consideration is ascertained in a two-stage process. The compliance with minimum requirements for the consideration of engines as other IRBA physical collateral required by the German Solvency Regulation is, like ships and aircraft, ensured by the business policy documented in the organisational guidelines and the contract templates used. These requirements concern in particular the determination of the object, the degree of cover and the right of inspection.

The location of wind energy plants is decisive for their value. Before a plant is constructed, wind power is forecast in external reports and the effective exploitation of wind is compared with these forecasts at least once a year when the plants are in operation. The value of a plant is derived from its yield in connection with the legally specified compensation for feeding electricity into the grid. The value of a wind energy plant is recalculated and lending values are re-stipulated in the event of significant deviations from forecasts. In order to be in a position to operate a wind energy plant alone if the need arises, the significant operator rights relating to location and rights resulting from supply contracts are normally assigned to it.

The guarantees considered in credit risk mitigation techniques are predominantly sureties and guarantees. The carrying amounts are based on the credit rating of the guarantor. The same rating rules apply as for all other borrowers. The main types of guarantors are public institutions and banks with a very good rating. Risk concentrations resulting from the acceptance of guarantees are monitored in connection with the direct exposure of the guarantor.

If a guarantor which does not have a 1 (AAAA) rating should account for a guarantee risk above € 10 million (materiality threshold), it will be revealed in the quarterly counterparty risk concentration report and country report of the NORD/LB Group that this threshold has been crossed. Currently a guarantor risk in the amount of € 40 million is accounted for real estate special financing.

The financial collateral predominantly comprises cash deposits and repurchase agreements, whereby the latter are relevant in the Trading Division. Only cash collateral (NORD/LB Group as the transferor) as well as bonds whose issuers have a very good rating (NORD/LB Group as the transferee) is accepted. Bonds are generally public-issuer bonds. Transactions are therefore low risk. They are valued automatically every day and the back office of the Trading Division monitors counterparty and issuer lines daily on the basis of these valuations so that no risk concentrations arises.

Tables 18 and 19 contain in accordance with § 336 para. 2 of the German Solvency Regulation an overview of collateralised CRSA and IRBA exposure values for each exposure class. With derivatives netting agreements are considered. Investments only need to be disclosed as a separate portfolio when the PD/LGD approach is used for investment exposures in the banking book. This currently does not apply in the NORD/LB Group.

The exposure values reported are collateralised by eligible financial collateral in accordance with § 154 para. 1 clause 1 no. 1 of the German Solvency Regulation after the application of value fluctuation factors, guarantees in accordance with § 154 para. 1 clause 1 no. 2 of the German Solvency Regulation and life insurance policies in accordance with § 170 of the German Solvency Regulation and other IRBA collateral in accordance with § 154 para. 1 clause 1 no. 3 of the German Solvency Regulation.

CRSA loans secured by mortgage collaterals are reported in the exposure class "exposures secured with real estate".

Table 18: Total collateralised CRSA exposure values (not including securitisations)

	Financial collateral		Guarantees		Mortgage liens	
(in € million)	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
Central governments	–	150	1 272	1 170	–	–
Regional governments and local authorities	1 511	947	2 373	2 555	–	–
Other public-sector entities	1 747	645	149	242	–	–
Multilateral development banks	–	–	–	21	–	–
International organisations	–	–	–	–	–	–
Banks	4 511	2 970	1 492	1 426	–	–
Covered bonds issued by banks	–	–	130	30	–	–
Corporates	920	789	1 663	1 449	–	-
Retail	3	1	1	–	–	-
Exposures secured by real estate	–	–	–	–	1 509	1 748
Investment certificates	–	–	–	–	–	–
Investments	–	–	–	–	–	–
Other exposures	–	–	–	–	–	–
Overdue exposures	1	–	–	–	23	30
Total	**8 693**	**5 503**	**7 080**	**6 894**	**1 532**	**1 778**

Table 19: Total collateralised IRBA exposure values (not including securitisations)

	Financial collateral		Guarantees		Other IRBA collateral	
(in € million)	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
Central governments	–	2 461	1 585	918	123	–
Banks	11 607	8 701	447	1 080	39	27
Corporates	1 651	2 343	2 484	2 715	26 262	21 291
Retail	–	–	–	–	–	–
Investments	–	–	–	–	–	–
Total	**13 258**	**13 505**	**4 516**	**4 713**	**26 424**	**21 317**

5.1.7.3 Netting Agreements

In order to mitigate counterparty risk in trading the NORD/LB Group employs netting agreements covering derivatives.

Netting agreements are always bilateral. Only standard general agreements are used, all of which provide for an obligation to make additional payments. The Legal Department is responsible for the conclusion of new contracts. Legal enforceability in the different jurisdictions is ensured by regularly obtaining legal opinions.

Contract data is stored centrally in the dedicated LeDIS standard application. This system of data management enables an automatic examination to be carried out by the users of this information, for example the employees responsible for processing reports.

Netting agreements on money receivables and cross-product netting agreements are not used.

The volume of netting agreements covering derivatives can be seen in Table 14 in section 5.1.6 on derivative counterparty risk positions and netting positions.

Only cash collateral is currently accepted in derivative transactions. Standard general agreements are also used here.

5.1.8 Securitisations

5.1.8.1 Aims, Functions and Scope of Securitisations

Securitisation is a further instrument available to the NORD/LB Group to control credit risks. The aim of these securitisation activities is to optimise the yield/risk profile of the loan portfolio and to ease regulatory equity requirements.

In order to diversify the loan portfolio, credit risks in the banks own books can transferred to other market participants (NORD/LB as an originator) or additional credit risks are taken (NORD/LB as an investor or sponsor). NORD/LB also conducts securitisation activities as an arranger of structured transactions in the interest of customers.

In particular synthetic securitisations using various hedging instruments are available for risk control. As a sponsor, NORD/LB makes liquidity facilities available in order to improve the credit quality of the institute's own asset-backed commercial paper (ABCP) conduit programme (Hannover Funding LLC). Securitisation transactions are all subject to a strict process of approval and monitoring, so that potential risks before and after the conclusion of a contract can be identified and regulated.

Hedge transactions were not previously used to mitigate risk with securitisation exposures in the NORD/LB Group. Risk reduction is ensured, however, due to the stringent financing principles that apply to each individual investment. This includes in particular the limiting of liability, country or industry concentrations both within a transaction and the securitisation portfolio, minimum rating requirements for the parties involved in the securitisations and closely set triggers which enable portfolio management over time. The ongoing portfolio monitoring with regard to the performance of the individual transaction is supported by asset-sector-specific monitoring tools. This ensures that the latest performance trends in the underlying asset pools for the respective transaction are recorded and analysed. Analysis results are entered into an early warning system, which is linked closely to NORD/LB's credit monitoring processes. Assets are sold selectively after being reviewed on a case-by-case basis.

In the period under review two synthetic securitisation transactions were concluded by the NORD/LB Group. In order to actively control RWA, own receivables were hedged by the cash-backed mezzanine guarantees provided by third-party investors. The transactions reduced both the credit risk and regulatory equity requirement. The NORD/LB Group pursues a conservative exposure strategy in its role as investor and sponsor. Securitisation positions held by the NORD/LB Group mainly comprise tranches with a low risk weighting and declined in the area of traditional securitisations in the period under review.

The NORD/LB Group acts as the arranger in particular in conjunction with transactions for Hannover Funding.

Bremer Landesbank and Deutsche Hypo have in recent years no longer appeared as an investor within the scope of securitisation transactions; there is a strategy to reduce the remaining portfolio. Neither currently act as sponsor or originator. This is also the case for the old stocks contained in NORD/LB's investment portfolio. Securitisation business has so far not been relevant for NORD/LB Luxembourg and NORD/LB CFB.

The scope of securitisation activities in the NORD/LB Group can be seen in section 5.1.8.8 on quantitative information.

5.1.8.2 Procedures for Determining Risk-Weighted Exposure Values, Internal Assessment Approaches and Rating Agencies

NORD/LB employs the following methods for ascertaining risk-weighted exposure values, depending on the pool of receivables:

IRBA pool of receivables

- In the rating-based approach (RBA), risk weights depend on external ratings, the granularity of the pool of receivables and the seniority of tranches.

- The supervisory formula approach (SFA) is used for external unrated positions for which NORD/LB has sufficient up-to-date information on the composition of the securitised portfolio and is able to determine capital requirements prior to the securitisation transaction.

- Unrated securitisation exposures in the ABCP programme (excluding asset-back money-market securities) are valued with the Internal Assessment Approach (IAA) method. The risk-weighted assets are determined based on the ratings obtained with the IAA, the granularity of the pool of receivables and the seniority of tranches.

- The look-through approach applies for investment funds. With the look-through approach the external credit ratings of the securitisation exposures in the investment fund are considered.

CRSA pool of receivables

Only external ratings are used to specify the CRSA securitisation risk weight. In general short and long-term external ratings from Standard & Poor's, Moody's Investors Service Ltd. and Fitch Rating are used for all types of securitisations.

NORD/LB uses a total of five internal assessment approaches which take into the requirements of § 259 of the German Solvency Regulation to assess certain securitisation exposures. Each specific internal assessment approach relates to one of the following exposure classes: Auto Leases, Auto Loans, Consumer Receivables, Insured Trade Receivables and Trade Receivables. The result of each internal assessment approach is a rating grade based on the rating scale of Standard & Poor's. The rating grades are used to determine the equity requirements and are an important decision-making criterion for loan decisions, pricing and portfolio management.

NORD/LB's Strategy and Models Department in the Finance and Risk Control Division is responsible for the development and maintenance of the internal assessment approaches, whereby changes to procedures are made on the basis of the four-eyes principle. The market divisions and the Credit Risk Management Department responsible for the transactions assessed with the internal assessment approaches are involved if there are any necessary changes in the international assessment approaches. Any decision on the nature and scope of the changes is made though by the Strategy and Models Department independently from these divisions. An annual validation of the internal assessment approached is also conducted by this department. In addition to this, a review of the internal assessment approaches is conducted at regular intervals by NORD/LB's Internal Audit. The German banking supervisory authority examined all of the internal assessment approaches before approving them.

The internal assessment approaches are structured in such a way that both a quantitative and qualitative part of the model influence the rating result. Quantitatively, the stress intensity that the respective transactions can withstand without incurring losses for NORD/LB is examined. For example, stress factors are applied to credit losses assumed in a base case as multipliers in order to simulate economic stress scenarios. Depending on the rating grade, these stress factors move between specific bands in accordance with the rating criteria of Standard & Poor's.

In the procedures for Auto Leases, Auto Loans and Consumer Receivables, a stress factor between 4.00 and 5.00 is applied for the rating AAA, between 3.00 and 4.00 for AA, between 2.00 and 3.00 for A, between 1.75 and 2.00 for BBB and between 1.50 and 1.75 for BB. For Trade Receivables and Insured Trade Receivables, NORD/LB again bases the stress factors it uses on Standard & Poor's, whereby the transactions involving risks are weighted with a stress factor of between 2.50 and 2.75 (AAA), between 2.25 and 2.50 (AA), between 2.00 and 2.25 (A) and between 1.50 and 2.00 (BBB). In addition to this, NORD/LB uses a range of other stress parameters which are based on the criteria of the rating agencies.

Qualitative components of NORD/LB's internal assessment approaches include valuation aspects which concern for example the management, organisation and receivables administration of the servicer or originator. The result of the qualitative model is a score which is used to determine the precise stress factors which are applied to a transaction for the various ratings.

For Bremer Landesbank and Deutsche Hypo, the methods used also depend on the underlying pool of receivables. Bremer Landesbank only uses the SFA for IRBA receivables. Deutsche Hypo uses both the RBA and SFA for IRBA receivables: it uses the rating-based approach for CRSA receivables. As securitisation transactions have so far not been relevant for NORD/LB Luxembourg and NORD/LB CFB, no process has been implemented here.

5.1.8.3 Liquidity and Operational Risks with Securitisation Transactions

Securitisation exposures held by the NORD/LB Group are assessed with regard to their degree of liquidity taking into account class and market information and are treated in accordance with their assessment in the liquidity management and control systems. Any use for the liquidity buffer required in accordance with the MaRisk is restricted by the liquidity assessment taking into account diversification aspects and only takes place with the countervalue adjusted by haircuts. In addition to this, in stress scenarios the reduced marketability or saleability of the securities held is considered as potential liquidity risk by the application of scenario-specific deduction factors.

The liquidity facilities provided by NORD/LB as the sponsor of the institute's own ABCP conduit programme are considered separately.

Possible reasons for increased use of the facilities may be a significant fall in value of the deposited assets and a change in the rating of NORD/LB and as a result not all of the commercial papers being placed on the money market. These events are considered appropriately in the stress scenarios to measure and control traditional liquidity risk.

Operational risks in the NORD/LB Group's securitisation transactions are countered by the continuous training of the employees entrusted with these transactions, the legal support for the securitisation process and the intensive analysis of the associated legal and economic conditions. Process risks are analysed within the scope of the New Product Process (NPP), as are potential reputational risks which might be associated with securitisation transactions.

5.1.8.4 Processes for Monitoring Counterparty and Market-Price Risks for Securitisations

In order to monitor changes in the counterparty and market-price risks of securitisation exposures in accordance with § 334 para. 1 no. 6 of the German Solvency Regulation, continuous portfolio screening takes place in NORD/LB. In order to review changes in the risk situation and the measures to take, various monitoring processes for every transaction on an individual transaction basis were implemented. These include the annual loan monitoring presentation, ad-hoc presentations in the event of negative events during the course of the year, the quarterly monitoring and review of the risk classification of risk-relevant exposures on the credit watchlist, the weekly monitoring of securities on the credit investment watchlist and the daily monitoring of rating changes on the ABS watchlist.

In addition to this, in 2012 an internal assessment of expected losses in different stress scenarios, which included an assessment of the securitisation portfolio and which supports the further optimisation and validation of necessary risk protection measures, took place. The findings are used as an additional source for identifying potentially risky exposures.

The value of securitisation exposures is primarily determined by the development of the underlying receivables. Structural components also need to be considered. These include in particular the legal protection against direct liability for the underlying receivable in the case of utilisation, the ranking of the securitisation exposures (tranches / seniority) based on the waterfall principle and the credit quality of the parties involved in the securitisation transactions.

The development of the risk-relevant parameters of the resecuritisation exposure is monitored regularly by the back office divisions of NORD/LB and Bremer Landesbank. Only the rating changes are not monitored daily; these are monitored in the weekly monitoring of securities on a internal watchlist. Deutsche Hypo has implemented basically the same process for monitoring counterparty and market-price risks for securitisations as NORD/LB.

5.1.8.5 Resecuritisations
With regard to investments in resecuritisation exposures, NORD/LB and Bremer Landesbank have invested in a transaction. This was financed by taking on structured loans. Both institutes are lenders of senior tranch loans. The loans are planned to mature in August 2013.

The financed primary securitisation exposures are ranked as non-senior and were rated when the transaction was drawn up in 2008 as 99.8 per cent AAA. The risk based on the ranking is low. The underlying assets are spread across the following asset segments: residential mortgage-backed securities (prime, non-prime, subprime), commercial mortgage-backed securities, consumer loans and small-and-medium-sized-enterprise-transactions. The main risks are seen in the area of sub-prime residential mortgage-backed securities issued in the USA.

Due to the seniority of the loan and the comparatively short residual maturity to August 2013, the risk to NORD/LB and Bremer Landesbank from the transaction is rated as low.

Deutsche Hypo has not invested in resecuritisations.

5.1.8.6 Securitisation Special Purpose Entities
The NORD/LB Group acts as a sponsor for the securitisation special purpose entity Hannover Funding LLC (Hannover Funding).

Hannover Funding is a fully supported ABCP programme which is sponsored and managed by NORD/LB. Hannover Funding is a bankruptcy-remote special purpose entity with limited liability registered in Delaware, USA.

Hannover Funding typically acquires trade and leasing receivables which were generated by customers of NORD/LB (the “transaction”) and refinances itself by issuing ABCP in the capital market. Hannover Funding can issue ABCP with a term of up to 270 days for USD commercial papers and up to 183 days for EUR commercial papers. The proceeds are used to acquire loan receivables or to issue loans secured by receivables and similar assets. The commercial papers issued by Hannover Funding benefit from an extensive credit and liquidity commitment (Liquidity Asset Purchase Agreement – (LAPA)) granted by NORD/LB. In order to hedge the transaction, NORD/LB provides Hannover Funding with liquidity facilities in the amount of 102 per cent of the transaction volume committed to the customer. The relevant CRSA and IRBA exposure values are shown in Table 22.

The credit and liquidity commitments within the scope of the LAPA can be utilised by Hannover Funding at any time. If Hannover Funding utilises a liquidity facility, NORD/LB is obliged either to purchase the assets from Hannover Funding or to issue a short-term loan to Hannover Funding. Within the scope of the annual credit rate assessment process to renew the liquidity facility, NORD/LB assesses the credit quality of the transactions and decides whether to renew or end the liquidity facility.

Neither NORD/LB nor any company affiliated with NORD/LB holds shares in Hannover Funding. As the programme administrator, NORD/LB is responsible for determining and implementing the investment policy of Hannover Funding and decides which assets can be purchased and which transactions can be financed. As a bankruptcy-remote company, Hannover Funding can only incur liabilities by issuing commercial papers, necessary hedging obligations, drawings within the scope of the LAPA and other measures provided for by the articles of association. The financial processing and the generation of daily reports for the activities of Hannover Funding is outsourced to the service provider Global Securitization Services (GSS); its activities are monitored by NORD/LB employees. The administration of the securitisation transactions (including business policy decisions and contracts) is performed by NORD/LB in the Asset Backed Finance unit in New York.

NORD/LB does not transfer its own receivables to Hannover Funding, as a result NORD/LB only has to record off-balance-sheet counterparty risk positions (liquidity facility) with Hannover Funding. NORD/LB’s loan receivables from its customers are financed by Hannover Funding. The marketing of commercial papers issued by Hannover Funding has been performed to date by external processors. NORD/LB does not have any direct contact with investors when commercial papers are issued and does not provide them with any advice.

5.1.8.7 Accounting Policies for Securitisations
Since reports in accordance with the German Solvency Regulation are currently made on the basis of the accounts prepared in accordance with the German Commercial Code in the NORD/LB Group, information is provided on accounting policies in accordance with the German Commercial Code at this point. For information on the accounting policies for financial instruments in accordance with IFRSs the notes to the consolidated financial statements (Note 7) in the annual report are referred to.

The method of reporting securitisation transactions depends on the type of securitisation. Basically there are two types of securitisations: synthetic and true sale securitisations.

With the securitisation transactions initiated as the originator, the assets are derecognised with true sale securitisations when they are transferred to a third party in accordance with the German Commercial Code.

The liquid facilities granted as the sponsor are reported in the balance sheet as irrevocable credit commitments in accordance with the German Commercial Code.

For the securitisation exposures acquired as an investor, different accounting polices apply depending on whether they are classified as fixed or current assets. In the NORD/LB Group these are only assigned to the banking book. For securities treated as fixed assets, write-downs to the lower of cost or market are made for securities with carrying amounts above par, but only down to a book price of a maximum of 100 per cent. Write-downs to the lower of cost or market are not charged for securities with carrying amounts below par. Write-ups (appreciation in value in accordance with § 253 para. 5 of the German Commercial Code) are made up to the cost of acquisition, even in excess of 100 per cent. Furthermore, impairment losses are charged to the fair value for lasting impairments. If the fair value cannot be derived primarily from monitorable, contractable prices, the fair value is calculated using a discounted cash flow model using customary and generally accepted input parameters. Securities in the liquidity reserve are valued in accordance with the strict lower-of-cost-or-market principle. Accordingly write-downs to the lower fair value are to be made as at the balance sheet date.

Compared to the previous period there has been no change in the accounting policies described.

5.1.8.8 Quantitative Information on Securitisations

In accordance with § 334 para. 2 no. 1 and of the German Solvency Regulation, the securitisation activities conducted with the NORD/LB Group as the originator and as the sponsor are shown in Tables 20 and 21. Receivable amounts are unweighted exposure values. It should be noted that the NORD/LB Group does not have any securitisation exposures in connection with revolving counterparty risk positions; therefore none are reported in accordance with § 334 para. 2 no. 4 of the German Solvency Regulation. The NORD/LB Group has securitised receivables and securitisation exposures only in the banking book.

The total of outstanding securitised receivables reported in Table 20 has increased due to the new securitisation transactions. The total for sponsor activities shown in Table 21 has fallen due to repayments.

Table 20: Total outstanding securitised receivables as originator

	Outstanding securitised receivables	
(in € million)	31 Dec. 2012	31 Dec. 2011
True sale securitisations		
Receivables from wholly or part commercial real estate loans	121	156
Synthetic securitisations		
Receivables from housing construction loans	201	–
Receivables from wholly or part commercial real estate loans	898	–
Receivables from other corporate loans	374	–
Total	**1 473**	**156**

Table 21: Total for sponsor activities

	Total for sponsor activities	
(in € million)	31 Dec. 2012	31 Dec. 2011
Receivables from other retail loans	–	144
Receivables from other corporate loans	1 388	1 496
Receivables from own and purchase leasing receivables	153	176
Total	**1 541**	**1 816**

The NORD/LB Group's securitised receivables are neither non-performing nor in default, therefore no such receivables are reported in accordance with § 334 para. 4 of the German Solvency Regulation.

In accordance with § 334 para. 2 no. 2 and para. 3 no. 1 of the German Solvency Regulation, securitisation activities of the significant companies of the NORD/LB Group are not only shown in their function as originator, they are also shown in their function as an investor and sponsor in Tables 22 and 23. Compared to the previous reporting date the exposure values and equity requirements have primarily fallen due to repayments. As a result of the bank's own securitisation transactions, increases in the values of selected types of receivables have been recorded.

Table 23 shows that investments are primarily made in tranches with a low risk weight, whereby there has been a slight shift compared to the previous reporting date in the risk weight bands. This is partly due to the rating migrations caused by the continuing adjustments to the change in method applied by the leading rating agencies. In order to enable comparability of the data in Table 23, the reference data was adjusted in accordance with the detailed breakdown.

Table 22: Total retained or purchased securitisation exposures

	Retained/purchased securitisation exposures			
	Exposure values CRSA		Exposure values IRBA	
(in € million)	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
On-balance-sheet items				
Receivables from housing construction loans	365	393	263	76
Receivables from other retail loans	46	48	–	–
Receivables from wholly or part commercial real estate loans	–	–	1 366	816
Receivables from other corporate loans	–	–	537	248
Receivables from own and purchase leasing receivables	–	–	3	8
Receivables from automobile finance (not including leasing)	23	31	–	–
Resecuritisations	–	–	31	251
Other on-balance-sheet items	–	–	149	251
On-balance-sheet receivables from special purpose entities and other on balance sheet loan enhancement measures	–	–	–	–
Total on-balance-sheet items	**434**	**472**	**2 349**	**1 651**
Off-balance-sheet items				
Liquidity facilities	153	176	1 388	1 639
Guarantees and other off-balance-sheet loan enhancement measures	–	–	–	–
Derivatives	–	–	–	–
Other off-balance-sheet items	–	–	–	–
Total off-balance-sheet items	**153**	**176**	**1 388**	**1 639**

Table 23: Capital requirements for retained or purchased securitisation exposures by risk weight band

	Banking book							
	Securitisations				Resecuritisations			
	Exposure value		Capital requirement		Exposure value		Capital requirement	
(in € million)	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
Standard approach	**586**	**649**	**28**	**29**	**–**	**–**	**–**	**–**
20 %	381	517	6	8	–	–	–	–
50 %	111	72	4	2	–	–	–	–
100 %	70	30	6	2	–	–	–	–
350 %	18	20	5	6	–	–	–	–
1250 %	6	10	6	10	–	–	–	–
Rating-based approach	**1 784**	**2 360**	**69**	**190**	**–**	**–**	**–**	**–**
≤ 10 %	484	776	3	5	–	–	–	–
> 10 % ≤ 20 %	515	527	7	7	–	–	–	–
> 20 % ≤ 50 %	319	336	7	8	–	–	–	–
> 50 % ≤ 100 %	346	439	18	24	–	–	–	–
> 100 % ≤ 250 %	56	45	5	4	–	–	–	–
> 250 % ≤ 650 %	56	131	20	38	–	–	–	–
> 650 % ≤ 1250 %	8	108	8	104	–	–	–	–
Regulatory formula approach	**1 399**	**3**	**10**	**2**	**31**	**251**	**0**	**4**
≤ 10 %	1 395	–	8	–	–	–	–	–
> 10 % ≤ 20 %	–	–	–	–	31	251	0	4
> 20 % ≤ 50 %	–	–	–	–	–	–	–	–
> 50 % ≤ 100 %	–	–	–	–	–	–	–	–
> 100 % ≤ 250 %	–	–	–	–	–	–	–	–
> 250 % ≤ 650 %	3	3	1	2	–	–	–	–
> 650 % ≤ 1250 %	–	–	–	–	–	–	–	–
Internal assessment approach	**387**	**498**	**13**	**12**	**–**	**–**	**–**	**–**
≤ 10 %	–	–	–	–	–	–	–	–
> 10 % ≤ 20 %	116	177	1	2	–	–	–	–
> 20 % ≤ 50 %	155	276	5	8	–	–	–	–
> 50 % ≤ 100 %	116	45	7	2	–	–	–	–
> 100 % ≤ 250 %	–	–	–	–	–	–	–	–
> 250 % ≤ 650 %	–	–	–	–	–	–	–	–
> 650 % ≤ 1250 %	–	–	–	–	–	–	–	–
Capital deduction	**11**	**–**	**11**	**–**	**–**	**–**	**–**	**–**
Look-through	**125**	**178**	**18**	**20**	**–**	**–**	**–**	**–**
Total	**4 392**	**3 688**	**148**	**254**	**31**	**251**	**0**	**4**

In Table 24 below the unweighted exposure values of the securitisation exposures are broken down by type of receivables in accordance with the requirements of § 334 para. 2 no. 5 of the German Solvency Regulation; they are to be considered with a risk weight of 1 250 per cent or a capital deduction. For securitisations the NORD/LB Group applies a risk weight of 1 250 per cent or a capital deduction. This is the first time that a detailed breakdown of the exposures has been provided; as a result no figures are reported for the reference date.

Table 24: Securitisation exposures with a risk weight of 1 250 per cent or a capital deduction

	Exposure value
(in € million)	31 Dec. 2012
Receivables from housing construction loans	9
Receivables from wholly or part commercial real estate loans	10
Other on-balance-sheet items	6
Total	**26**

In Tables 25 and 26 for the first time information is presented in accordance with the requirements of § 334 para. 2 no. 3 and para. 2 no. 6 of the German Solvency Regulation on the receivables securitised in the period under review and the NORD/LB Group's receivables planned for securitisation. The amounts reported are unweighted exposure values. In the previous reporting period no own receivables were securitised or planned for securitisation. Accordingly, no figures are reported for the reference date. The NORD/LB Group has not sold any receivables and as a result not realised any profits or losses.

Table 25: Securitisation transactions in the reporting period

	Banking book	
(in € million)	Securitisations	Profits/losses from the transactions
Receivables from housing construction loans	215	–
Receivables from wholly or part commercial real estate loans	933	–
Receivables from other corporate loans	382	–
Total	**1 530**	**–**

Table 26: Total planned securitised receivables

(in € million)	Banking book
Receivables from wholly or part commercial real estate loans	3 399
Receivables from other corporate loans	9 513
Other on-balance-sheet items	99
Total	**13 011**

In Table 27 purchased resecuritisation exposures are presented in accordance with the requirements of § 334 para. 3 no. 2 of the German Solvency Regulation. These exposures were not secured by the NORD/LB Group. Compared to the previous reporting date the exposure values due to repayments have fallen sharply.

Table 27: Resecuritisation exposures and hedged amounts

	Exposure value	
(in € million)	31 Dec. 2012	31 Dec. 2011
Resecuritisation exposures before security	31	251
Security by guarantees	–	–
of which guarantors with rating AAA to AA–	–	–
of which guarantors with rating A+ to A–	–	–
of which guarantors with rating BBB+ to BBB–	–	–
of which guarantors with rating less than BB+	–	–
Security by other collateral	–	–
Resecuritisation exposures after security	31	251

5.2 Investment Risk

5.2.1 Investment Risk Management

5.2.1.1 Investment Risk Management Strategies and Processes

Securing and improving the banks own market position is the primary motive behind the investment strategy of the NORD/LB Group. Generally investments serve to effectively consolidate the universal activities of the bank and to fulfil joint responsibilities resulting from the function as a state bank and a central bank for the savings banks. In order to support the NORD/LB Groups business model there is a deliberate focus on banks and financial companies.

The strategic objective of significant investments is to establish closer ties to support the customer-oriented business model of the NORD/LB Group. With all other investments, however, the general objective is to systematically reduce these where this makes sense from an economic and business point of view.

Group interests are maintained in relation to investments primarily by centrally specifying key business ratios or specific tasks. The aim is to ensure that the Group is effectively managed and that transparency is guaranteed for third parties.

Investments are regularly monitored by analysing reports drawn up during the year, intermediate and annual reports and audit reports drawn up by the auditors. Control is carried out by NORD/LB representatives or the supervising subsidiaries in the supervisory boards, advisory boards, shareholders' meetings, annual general meetings and owners' meetings as well as by means of holding operative mandates in the companies.

Generally all investments are monitored centrally by the Investment Management Department. However, Bremer Landesbank in particular has its own Investment Management Department.

As a general rule the Erweiterter Konzernvorstand and the Konzernsteuerungskreise control all significant investments.

The method for measuring investment risk also considers risks beyond the carrying amount, e.g. additional contributions and letters of comfort. In the category of investment risk, the risk potential is quantified for different confidence levels and a time horizon of one year using a risk model; the parameters that are used generally focus on loss events relating to investments. The further calculation is based on the Gordy model, which is used by the Basel Bank Supervisory Committee for aligning equity requirements within the framework of Basel II.

The model used calculates contributions made by individual investments towards expected and unexpected loss at portfolio level, which together add up to the risk potential for the portfolio.

At the level of the NORD/LB Group, all of the significant investments from a risk point of view are considered and integrated into the risk management system of the Group based on the quantified risk potential for each risk type.

5.2.1.2 Investment Risk Management Structure and Organisation

Risks resulting from investments at various levels in the Group are managed by NORD/LB's Investment Management Unit in close cooperation with other divisions, in particular the Finance and Risk Control Division and the Finance/Tax Division. Domestic and foreign investments are all supervised centrally by the Investment Management Unit or by the corresponding units in the subsidiaries. Minor exposures are controlled and supervised by the divisions initiating the exposure in each case due to the close factual connection. This is done in close cooperation with the Investment Management Unit. Regulatory reports and the management of the investment-specific database are the responsibility of the group Investment Data and Equity Management.

Based on the investment analysis model, investments were classified consistently across all divisions as significant, important and other investments. The review considers both quantitative and qualitative criteria.

The result of the significance analysis determines how closely the risks are monitored in all divisions of NORD/LB. A further differentiation is made from a risk point of view for the treatment of significant investments. The significant investments based on quantitative criteria are considered in the internal and external reporting using the look-through approach at the level of individual risk type. The significant investments based on qualitative reasons of the NORD/LB Asset Management Group and the Öffentliche Versicherungen Braunschweig Group are reported together with the important and other investments as investment risk, but are subjected to closer analysis by the divisions included in Investment Management.

The concept will also be implemented in subsidiaries with own investments (Bremer Landesbank and Öffentliche Versicherungen Braunschweig). The investments of the subsidiaries of NORD/LB Luxembourg are analysed by NORD/LB's Investment Management.

5.2.1.3 Investment Risk Cover and Mitigation

In order to enhance earnings potential and reduce capital tied and potential risk relating to investment interests the NORD/LB Group has, on the basis of a critical review of the investment portfolio, disposed of a range of investment interests since 2005. This strategy was continued in the year under review. In addition to the complete sale of a few smaller investments, the share of 40 per cent in NORD Holding Unternehmensbeteiligungsgesellschaft mbH, Hanover, was reduced to 5 per cent.

5.2.1.4 Investment Risk Reporting

The reporting of investment risk was revised completely in the year under review. Investment Management reports to the Managing Board and the supervisory bodies of NORD/LB twice a year on the investment portfolio. The report includes among other things an analysis of current development and the strengths and weaknesses of the investments.

In addition to this, realised or anticipated income from investments is reported on a monthly basis to the Finance/Taxes Division. The Finance and Risk Control Division also submits a report on the income and profitability of the NORD/LB Group's largest investments consolidated under commercial law to NORD/LB's Managing Board.

In the significant subsidiaries from a risk point of view that have investments, corresponding reports are also regularly prepared on the respective investments.

5.2.2 Quantitative Information on Investment Risk

In accordance with §332 Nos. 2a and b of the German Solvency Regulation, Table 28 contains an overview of the carrying amounts of investment exposures in the banking book which are not consolidated for regulatory purposes and not deducted from capital. Such investments are currently not relevant for NORD/LB Luxembourg and NORD/LB CFB.

Since the reports required in accordance with the German Solvency Regulation are currently prepared on the basis of accounts prepared in accordance with the German Commercial Code in the NORD/LB Group, information is also provided here on valuations of investments in accordance with the German Commercial Code. For information on the accounting policies in accordance with IFRSs the notes to the consolidated financial statements (Note 7) in the annual report are referred to. Investments are reported at acquisition cost or at lower fair value in the event of a permanent loss of value, whereby the fair value is calculated based on the present value of the shareholders' future net earnings associated with the ownership of the company.

NORD/LB distinguishes in its materiality concept between three risk categories: material, important and other investments. The materiality thresholds are based on regulatory target ratios at Group level. The carrying amounts of investment exposures are reported for the first time based on this materiality concept. Accordingly, no figures are reported for the reference date. As the aforementioned investment categories are monitored by Investment Management in Board Staff/Legal/Investments and the funds category is monitored by the respective market divisions, funds are reported separately.

For the sake of clarity, four investment groups are reported in Table 28, each broken down by listed, not listed but included in a sufficiently diversified investment portfolio and other investments.

With regard to Table 28, when a listed value is ascertained, this is normally the fair value, for funds which are not listed the repurchase value is used. In cases in which a current value is ascertained for internal or external purposes, this is the fair value, otherwise the carrying amount is used. For investments measured using the at Equity method, the fair value in the disclosure reported is defined as the value of the proportionate equity.

Table 28: Carrying amounts of investment exposures

	Carrying amount		Fair value		Market value	
(in € million)	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
Material investments						
Listed	–		–		–	
Not listed but included in a sufficiently diversified investment portfolio	–		–			
Other investment exposures	–		–			
Important investments						
Listed	–		–		–	
Not listed but included in a sufficiently diversified investment portfolio	85		153			
Other investment exposures	26		37			
Other investments						
Listed	5		5		2	
Not listed but included in a sufficiently diversified investment portfolio	13		21			
Other investment exposures	82		84			
Funds						
Listed	–		–		–	
Not listed but included in a sufficiently diversified investment portfolio	–		–			
Other investment exposures	1 216		1 216			

In accordance with § 332 nos. 2c and d of the German Solvency Regulation, Table 29 contains an overview of the realised and unrealised profits or losses in the banking book which are not consolidated for regulatory purposes and not deducted from capital. Such investments are currently not relevant for NORD/LB Luxembourg and NORD/LB CFB.

While a loss from sales was recorded in the previous period, in the current period a profit has been realised. There are also latent revaluation profits as at the reporting date.

Table 29: Realised and unrealised profits / losses from investment exposures

	Realised profit / loss from sale / liquidation		Latent revaluation profits / losses			
			Total		Of which included in supplementary capital	
(in € million)	1 Jan. – 31 Dec. 2012	1 Jan. – 31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
Total	3	– 2	71	68	–	–

5.3 Market-Price Risk

5.3.1 Market-Price Risk Management

5.3.1.1 Market-Price Risk Management Strategies and Processes

The activities of the NORD/LB Group associated with market-price risks concentrate on selected markets, customers and product segments. The positioning on money, currency and capital markets should be in line with the significance and dimension of the Group and is primarily geared towards the needs of customers and supporting the control measures of the bank as a whole. The NORD/LB Group does not take up any positions on an opportunistic basis.

Trading activities relating to customer business focus on interest products. Here the NORD/LB Group aims, within the scope of set market-price risk limits, to achieve earnings from term transformation or from credit spreads and to participate in general market developments within the framework of these risk limits.

Credit investments in securities and credit derivatives result across the Group in significant credit-spread risks in the banking book. The NORD/LB Group generally aims to use the credit spreads to maturity and to gradually reduce the amount of these credit investments by trimming down the portfolio.

Trading book positions are valued daily at current market prices. Valuation is carried out bank-wide at a specific time. Market prices and valuation parameters such as interest-rate curves and spreads are reviewed daily by the Risk Control Department in the Finance and Risk Control Division which is independent of trading.

Gains / losses are mainly determined in the front-office systems. The valuation algorithms that are stored there have been approved by the Risk Control Department. Risk is ascertained in a risk control system supplied with market data from the front-office systems which is quality-assured independent of trading.

For the internal control and monitoring and limiting of market-price risks, Value-at-Risk (VaR) methods are generally employed for all significant portfolios.

The VaR ratios are calculated daily using the historical simulation method. In the year under review the methodology and risk system in the NORD/LB Group were standardised. A unilateral confidence level of 95 per cent and a holding period of one trading day are used across the Group. At the end of each quarter NORD/LB also prepares a VaR calculation for the NORD/LB Group based on the above parameters when calculating the risk-bearing capacity.

The VaR calculation is based on historical changes to risk factors over the previous twelve months. The models take account of correlation effects between risk factors and sub-portfolios. Credit-spread risks in the banking book are currently calculated in operational control across the Group using a scenario analysis.

Credit-spread risks in the banking book are currently not controlled across the Group by VaR limits; instead they are limited separately by a scenario analysis.

The prediction quality of the VaR model is verified with comprehensive backtesting analyses. This involves a comparison of the daily change in value of the respective portfolio with the VaR of the previous day. A backtesting exception exists if a negative change in value observed exceeds the VaR.

The number of backtesting exceptions fell during the course of the year under review; however as at the reporting date it was still red for NORD/LB and green for the other significant companies of the NORD/LB Group from a risk point of view. This increased number results from the positions in the banking book in a large part due to the national debt crisis in Europe and the associated market fluctuations in the interest and credit markets. It was also partly the result of basis risks in the banking book, i.e. distortions between the various interest markets. The VaR values of the trading section concerned are increased accordingly by additions from backtesting until these effects are corrected.

In addition to the VaR method, the effects of extreme market changes on the risk position of NORD/LB are examined in daily stress test analyses. Various stress scenarios were defined for each of the types of market-price risk, namely interest-rate risk, currency risk, share-price risk, fund-price risk and volatility risk, and these approximately reflect the average of the highest changes seen in the respective risk factors and are combined with scenarios spanning the types of market-price risk. In addition to this, a stress test analysis of the credit-spread risks is conducted on a weekly basis for the banking book. The risk factors observed were selected in such a manner that material risks relating to the entire portfolio of NORD/LB and to the individual sub-portfolios of the trading divisions are covered.

In addition, other stress test analyses are conducted at least once a month, including strategy-related stress tests for selected trading items and specific stress scenarios for spread and basis risks in the banking book. Further general stress tests for all risk types are conducted on a quarterly basis within the context of reporting on risk-bearing capacity. The stress test parameters are reviewed on at least an annual basis and adjusted to changes in the market situation as and when required.

5.3.1.2 Market-Price Risk Management Structure and Organisation

The trading divisions Treasury, Markets and Bank-Assets Allocation are responsible for controlling market-price risks in NORD/LB. Within the scope of their Global Head function, the trading divisions are also responsible for trading activities conducted at the foreign branches in London, New York, Singapore and Shanghai. Trade transactions are processed and controlled in separate divisions.

The strategic control of market-price risks is supported by the Asset Liability Committee (ALCO). The ALCO is an advisory body that meets on a monthly basis at the level of NORD/LB and on a quarterly basis at the level of the NORD/LB Group. It supports the strategic control of market-price risk positions, liquidity positions and the investment portfolio with the aim of optimising the profitability of the risk capital tied up in the positions. For this purpose recommendations for action are developed as a basis for decision-making for the Financial Markets Director. The members of NORD/LB's ALCO with voting rights are the Managing Director and the heads of the trading divisions. Representatives of the Finance and Risk Control Division, the Research/Economy Division, the Finance/Taxes Division and the director responsible for the Finance and Risk Control Division also take part. The Group's ALCO also includes representatives of the significant companies from a risk point of view. The measures passed by the Managing Board are implemented by the Bank-Assets Allocation and Treasury Divisions and the relevant units of the subsidiaries.

Risks are monitored by the Risk Control Department in the Finance and Risk Control Division, which in accordance with MaRisk operates independently of divisions responsible for market-price risk control in terms of both function and organisation and performs comprehensive monitoring, limiting and reporting activities for NORD/LB (including its foreign branches) and the NORD/LB Group. This also includes calculating amounts eligible based on the internal risk model for the quarterly reports to the Deutsche Bundesbank in accordance with the German Solvency Regulation. The responsibility for the development and validation of the risk model also lies with the Risk Control Department.

The market-price risks of Bremer Landesbank, NORD/LB Luxembourg, Deutsche Hypo and NORD/LB CFB are managed decentrally by the local Trade and Treasury Divisions. For the monitoring of risks, these companies have their own Risk Control units. The data is integrated into the reporting at Group level.

5.3.1.3 Market-Price Risk Cover and Mitigation

The VaR limit for market-price risks is derived from the RBC model, allocated by Managing Board resolution to the Director who is responsible for Financial Markets and who delegates to the subordinate organisational units.

Compliance with the limits is monitored by the Risk Control units. Any losses are immediately added to the loss limits, hence resulting in a reduction in VaR limits in accordance with the principle of self-absorption. Correlation effects between the portfolios are included in calculating VaR and in the delegation of sub-limits.

In some areas specific sensitivity limits are added to the VaR limits. Banking book credit-spread risks are limited separately.

5.3.1.4 Market-Price Risk Reporting

In compliance with the MaRisk, the Risk Control Department, which is independent of the divisions responsible for the positions, reports daily on market-price risks to the respective Director. The Directors are therefore also informed about the effects of the stress scenarios beyond the scope of VaR scenarios. A weekly report is also provided on the credit-spread risks in the banking book of the institutes of the NORD/LB Group. The Managing Board is informed in detail once a month about NORD/LB's and the NORD/LB Group's market-price risks and earnings position.

Daily reporting to the responsible Directors and monthly reporting to the Managing Board also take place in the significant subsidiaries from a risk point of view.

5.3.2 Quantitative Information on Market-Price Risk

In accordance with § 330 of the German Solvency Regulation, for institutes with internal models first of all an overview of the VaR values of the relevant market-price risk exposures in the trading book and banking book is to be reported, and secondly, in accordance with § 318 para. 1 clause 2 of the German Solvency Regulation the daily VaR is to be compared with the daily changes in the value of the portfolio and significant VaR transgressions are to be disclosed.

VaR data relating to general interest-rate risks and general and specific share-price risks and currency risk in the trading and banking book determined in the internal model are shown in Table 30.

The schedule contains the VaR on the balance sheet date, the highest and lowest VaR during the reporting period and the annual average.

The VaR for Table 30 has been calculated with a confidence level of 99 per cent and a holding period of one trading day.

The currency risk was included in the internal model on 30 June 2012. The method for calculating risks in the trading book then changed from addition to a correlated result. For currency risk no figures have been reported for the reference date.

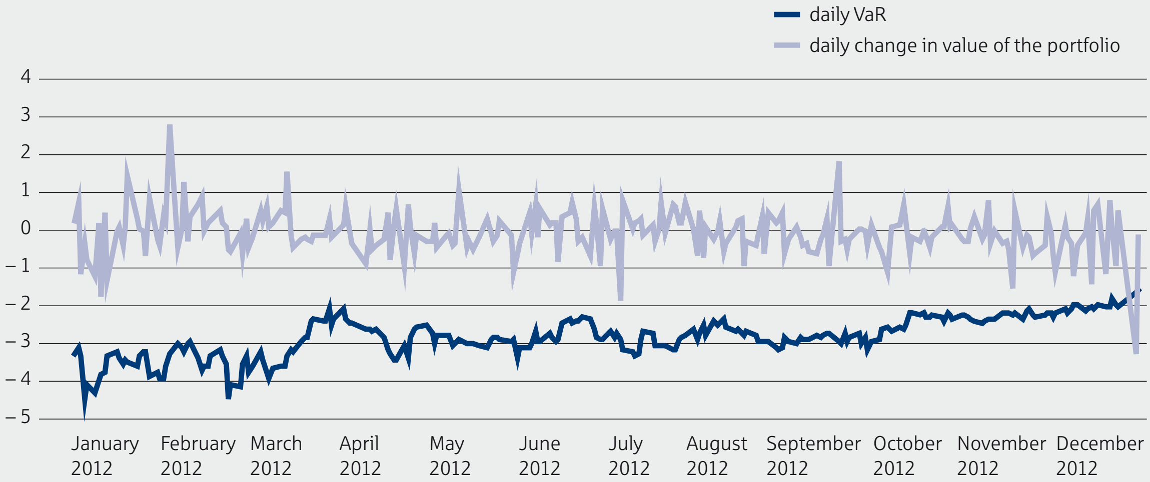
The fall in the VaR as at the end of the reporting period is attributable to a fall in the risk in the trading book, which is mainly due to the reduction of exposures.

Table 30: Overview of the VaR of portfolios in the trading book and currency risk in the banking book (internal model)

(in € million)	VaR at the end of the reporting period		VaR values during the period					
			Highest value		Lowest value		Reporting periods ø	
	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
Combined VaR	**2**	**3**	**4**	**8**	**2**	**3**	**3**	**5**
General interest-rate risk	1	3	4	6	1	2	2	3
Share-price risk	0	–	0	3	0	–	0	1
Volatility risk	1	–	1	1	0	–	1	–
Currency risk	1	–	1	–	1	–	1	–
Stressed VaR	**5**	**7**	**10**	**9**	**4**	**7**	**6**	**8**
General interest-rate risk	4	6	7	10	3	6	4	**8**
Share-price risk	1	1	1	3	1	1	1	**2**
Volatility risk	1	1	2	1	0	–	1	**1**
Currency risk	1	–	2	–	1	–	1	**–**

The following diagram shows the VaR values of the categories in Table 30 calculated daily at the close of business using the internal model with a confidence level of 99 per cent and a holding period of one trading day. In order to make it easier to identify any backtesting exceptions,i. e. negative changes in value in accordance with § 318 para. 1 clause 2 of the German Solvency Regulation which exceed the previous day's VaR value, the following presentation was chosen: The VaR value is reported as a potential loss with a minus sign, and the change in value in accordance with § 318 para. 1 clause 2 of the German Solvency Regulation at the close of business on this date and the VaR value at the close of business of the previous day are assigned to the respective date. This is not the backtesting of the VaR value for internal control purposes, but the relevant value in terms of regulatory requirements.

Value-at-Risk (99 per cent, 1 day) and portfolio change in value in € million



A backtesting exception occurred on 27 December 2012 and was the result of losses due to market changes in various market segments, which are attributable to less liquid market environment in the festive period. The process and model analyses did not identify any need for change and confirm the appropriateness of the model.

Dirty backtesting also takes place in accordance with the new clause 4 added to § 318 para. 1 of the German Solvency Regulation on 31 December 2011, which is based on actual changes in value instead of hypothetical changes in value. Here a further exception occurred on 10 December 2012, which was the result of a change in the valuation method for interest derivatives. The exception was expected due to the calculations, which were conducted before the change in calculation method; without the change no exception would have occurred on this date. An analysis of the exception did not identify any need for action.

Reference is made to Table 3 in Section 4.2.2 on capital requirements for information on the capital requirement for market-price risks, presented separately for the standard approach and the internal model approach.

5.3.3 Special Information on Interest-Rate Risk in the Banking Book

Interest-rate risks in the banking book mainly arise from new business or strategic interest management. In order to quantify the risk content of these positions at individual institute level on a daily basis, the VaR model, which is also used for the trading book, is applied. The quarterly calculation of the interest-rate shock in the banking book is based on the regulatory stress test involving a parallel shift in the interest-rate curve by + 200 basis points or – 200 basis points. In accordance with the BaFin Circular 11/2011 (BA), a shorter interval between these internal calculations was set as appropriate in each individual institute.

The models used in daily control measures are also used for interest-rate shocks. This involves mapping onto the fixed interest period for products with fixed terms and various models of stochastic products. The majority of open-end investments are shown in moving average models. Unsecured cancellation rights for loans are restricted by imposing limits. Unlimited equity and unlimited investments are not considered in accordance with regulatory requirements.

Table 31 shows in accordance with § 333 para. 2 of the German Solvency Regulation changes in the present values given an interest-rate shock of + 200 basis points and an interest-rate shock of – 200 basis points. Increases in present values are shown as positive figures while decreases in present values are preceded by a minus sign.

In accordance with Federal Financial Supervisory Authority (BaFin) Circular 11/2011, the same procedure is used to calculate the change in the present value of every foreign currency as the procedure for positions in euros. For foreign currencies the least favourable changes in present values are added up and this total is then added to the change in the present value in the respective euro scenario.

The change in the present value given an interest-rate shock of + 200 basis points is primarily due to the change in NORD/LB, whose present value was mainly affected by measures implemented by the Treasury Division, and in particular by the effects of strategic interest measures taken by the Asset Liability Committee in the banking book.

Table 31: Interest-rate risks in the banking book

	Change in present value			
	Interest-rate shock + 200 basis points		Interest-rate shock – 200 basis points	
(in € million)	31 Dec. 2012	31 Dec. 2011	31 Dec. 2012	31 Dec. 2011
EUR	– 625	– 379	403	500
Others	– 105	– 56	– 105	– 56
Total	**– 730**	**– 435**	**298**	**444**

5.4 Liquidity Risk

5.4.1 Liquidity Risk Management

5.4.1.1 Liquidity Risk Management Strategies and Processes

Securing perpetual liquidity for the NORD/LB Group is strategically essential. While traditional liquidity risk is principally hedged by maintaining a sufficient supply of liquid assets (in particular central bank eligible securities), refinancing risks are allowed to be taken with a structural transformation of liquidity terms. Risks are constrained with suitable limits in both cases.

The limit for traditional liquidity risk serves to secure the ability to make payment even in a conservative stress scenario, while the limit for the refinancing strategy is derived from the risk strategy and the risk-bearing capacity of NORD/LB and allows term transformation to contribute to earnings.

In order to limit market liquidity risk the NORD/LB Group primarily makes securities transactions in markets which have proven themselves to be sufficiently liquid even when they are under pressure.

In the Global Group Liquidity Policy the business policies for liquidity risk management in the NORD/LB Group are specified. The individual institutes of the NORD/LB Group also have liquidity control policies which describe the basic strategic guidelines for ensuring a sufficient supply of liquidity. Liquidity management measures in cases of emergency and in crisis situations are specified in contingency plans.

Risk concentrations on the liabilities side are prevented by a diversified investor base and product range. The focus is on institutional and public investors, which is in line with the risk-based orientation of the NORD/LB Group. The diversification of refinancing sources is also strengthened by covered bond issues and retail deposits.

The NORD/LB Group calculates the utilisation of volume structure limits for the various maturity bands on the basis of a liquidity maturity blance sheet of the entire item, which essentially reflects the standard case. Liquidity risk is quantified in a risk-bearing capacity concept resulting from a present-value consideration of the refinancing risk.

Calculation of dynamic and static stress scenarios for modelling traditional liquidity risk is based on current liquidity maturity. These are stressed until they reflect a crisis. For example, a reduced amount of accounting liquidity and an increased utilisation of credit commitments is presumed. The stress scenarios can be used to show the effect of unexpected events on the liquidity situation of the Group, enabling the Group to plan for the future and to be well-prepared for cases of emergency.

The analysis of stress scenarios takes into consideration the overriding significance of the market liquidity of all of the securities in the portfolio. In addition, the credit-spread risks for all securities are considered when calculating market-price risks. Since the spreads observed on the market reflect both the credit rating of an issuer and the market liquidity of the securities, the risk report also indirectly takes into account the market liquidity of the securities. No separate risk dimension is applied for market liquidity risks.

5.4.1.2 Liquidity Risk Management Structure and Organisation

In addition to the Treasury Division, the global trading divisions Markets and Bank-Assets Allocation and the Finance and Risk Control Division are included in the process of liquidity risk management at NORD/LB.

The Treasury is responsible for controlling items bearing liquidity risks and producing profits and losses resulting from changes in the liquidity situation (in general or specific to NORD/LB).

The Treasury also presents the liquidity maturity balance sheet to the ALCO. It also reports to this committee on refinancing risk and makes recommendations for action concerning the future approach towards strategic planning if necessary.

The Risk Control Department of the Finance and Risk Control Division is in charge for the implementation and development of internal procedures for measuring, limiting and monitoring liquidity risks. The Risk Control Department also ascertains and monitors traditional liquidity risk and monitors refinancing risk. The Finance and Risk Control Division also ascertains and monitors regulatory indicators in accordance with the German Liquidity Regulation.

A Global Liquidity Management crisis team is available in the event of a liquidity crisis and assumes responsibility for liquidity management in close cooperation with the Managing Board.

The liquidity risks of Bremer Landesbank, NORD/LB Luxembourg, Deutsche Hypo and NORD/LB CFB are managed decentrally by the local Treasury units and monitored by their own Risk Control units. In order to coordinate the decentralised units of the NORD/LB Group, information is regularly exchanged between the significant companies of the NORD/LB Group from a risk point of view to address both issues relevant to control in the Treasury Division and also model-relevant issues in the Risk Control Division.

5.4.1.3 Liquidity Risk Cover and Mitigation
The refinancing risk of NORD/LB and the significant subsidiaries from a risk point of view is limited by the present value limits and the volume structure limits for various maturity bands that are derived from the risk-bearing capacity. The liquidity maturity is also considered separated by currency.

Traditional liquidity risk is primarily limited by analysing a dynamic stress scenario. The scenario describes the most likely crisis situation in each case, hence also describing as at the reporting date a current market environment which is characterised by economic problems in the periphery countries of the EU and a continuing loss of confidence in financial markets. Analysis is based on liquidity cash flows and covers the coming twelve months on a daily basis. For products without fixed liquidity flows, optional components (e.g. from irrevocable credit commitments), planned new business and refinancing opportunities, assumptions are made in accordance with the market situation which are subject to regular validation.

With the help of the limit system it is ensured that in the event of a stress case, surplus liquidity is available for at least three months. This means that securing the ability to make payment at any time in this maturity band is given preference over possible opportunities to generate profits. The aim is to ensure a liquidity surplus for at least six months in the dynamic stress scenario taking into account profitability aspects.

The dynamic stress scenario is supplemented by other statistical stress tests. These tests cover a scenario specific to NORD/LB and also the alternative scenario of a comprehensive liquidity crisis as well as a short-term scenario for a market-wide liquidity disruption.

Market liquidity risks are implicitly accounted for by means of classifying securities in the liquidity maturity balance sheet in accordance with their market liquidity. Securities are allocated on the basis of a detailed security category concept to one of eleven main categories with one to eight subcategories (e.g. by central bank eligibility and rating). The liquidity maturity balance sheet is presented by liquidity category, with the maturities ranging from payable on demand to final maturity.

When classifying the securities in the liquidity categories, in addition to the tradability, in particular the usability of the collateral is of key importance, i.e. the suitability of the securities as collateral in repo transactions, with central banks or as cover for covered bonds.

For control at Group level, a Group liquidity maturity balance sheet is prepared every month. For this purpose all of the cash flows in euro and the translated foreign currency cash flows of the significant Group companies from a risk point of view are compiled in one overview. The liquidity maturity balance sheets are also prepared in the most important foreign currencies.

5.4.1.4 Liquidity Risk Reporting
The Risk Control Department provides the responsible divisional heads every day with the data on the dynamic stress test scenarios for the NORD/LB Group's traditional liquidity risk. The Managing Board is informed in detail in the monthly report on market and liquidity risks of the NORD/LB Group's liquidity risk situation. Information is also provided on a quarterly basis in the report on risk-bearing capacity.

In addition to this the NORD/LB's biggest investors in new business are monitored regularly. The responsible divisional and departmental heads are informed of liquidity concentrations in the concentration risk report.

The monthly refinancing risk reports are prepared in euro and in the most important foreign currencies. The maturity balance sheets upon which the refinancing risk is based are also presented together with the stress tests to the Asset Liability Committee which meets on a monthly basis.

The liquidity ratios calculated in accordance with the German Liquidity Regulation can be calculated daily and submitted to the Treasury Division for the purpose of regulating liquidity risk. The report in accordance with the German Liquidity Regulation for the entire bank and each location is submitted to the Bundesbank, the control divisions and to the Managing Board of NORD/LB.

With the significant subsidiaries from a risk point of view, the relevant reports on traditional liquidity risk, refinancing risk and the liquidity situation are established in the status quo and under stress. These inform the controlling divisions, responsible directors and the Managing Board on a monthly, weekly or even daily basis.

5.4.2 Quantitative Information on Liquidity Risk
There are no quantitative regulatory requirements relating to the disclosure of liquidity risk. Reference is made here to the risk report included in the management report of the NORD/LB Group.

5.5 Operational Risk

5.5.1 Operational Risk Management

5.5.1.1 Operational Risk Management Strategies and Processes

Operational risk is imminent in any business activity. For this reason, various measures undertaken in the NORD/LB Group have for a long time now focussed on the management of operational risk.

The NORD/LB Group pursues the goal of efficient and sustainable management of operational risks, i. e. avoidance or transfer where this makes economic sense. Countermeasures are taken when necessary if the costs for the protection are not greater than the costs directly incurred as a result of the risk or if its reputation could be significantly affected. The relevant legal requirements must be met at all times.

Operational risks are considered in all business decisions. Future losses are countered by rules and the internal control systems as well as by a solid risk culture. The raising of risk awareness among all employees and an open approach plays a key role in avoiding operational risks. Business continuation and contingency plans serve to limit damage in the case of unexpected extreme events. Very extreme, unforeseeable events are countered by a crisis management organisation. Insurance is taken out to actively protect against remaining risks.

The management of operational risks is performed largely on a decentralised basis and is supported by a central methodical framework for risk identification and risk assessment. Numerous sources of information such as loss events, risk indicators and scenarios are evaluated continually in order to ensure that the view of the risk situation is always up to date. Appropriate countermeasures are taken by the responsible divisions as and when required. The appropriateness and effectives of the internal control system, the business continuation and contingency planning and the appropriateness of the insurance cover are reviewed at regular intervals.

The NORD/LB Group collects data on losses from operational risks in a loss event database. As at the reporting date there was no minimum limit; however there is a simplified reporting process for gross losses of less than € 2 500. Data in the loss database provides the basis for analyses in support of risk management and is an important element of the statistical-mathematical risk model developed by the NORD/LB. The significant companies from a risk point of view of the NORD/LB Group and the NORD/LB Asset Management Group are included in the collection of loss events.

The loss events collected are exchanged in anonymous form in the Data Consortium of Operational Risks (DakOR) with other banks. The consortium data extends the data basis which is used for the internal model. In addition information contained in the ÖffSchOR database is available in which press releases on major losses resulting from operational risk are collected, structured and processed. The two sources of data are used for scenario analyses and regular benchmarking.

With the help of the risk assessment method applied in NORD/LB, Bremer Landesbank, NORD/LB Luxembourg, Deutsche Hypo, NORD/LB CFB and the NORD/LB Asset Management Group, the recording of data concerning past losses is supplemented with future components. Expert appraisals on the impact of specific scenarios provide a detailed insight into the risk situation of the individual bank divisions so that relevant measures can be derived if necessary. The scenarios and areas where data is gathered are selected on a risk-oriented basis and on the basis of an analysis of various data sources (e. g. loss events and audit reports). The results are included in the internal model and as a result improve the measurement accuracy.

In order to identify potential risks early on and to take countermeasures, risk indicators are used in NORD/LB. The selection of indicators takes place on a risk-oriented basis and is regularly reviewed for its appropriateness. Causes of risk should also be identified and concentrations of risk prevented with the continual and comparative analysis of loss events, risk indicators and scenarios.

The NORD/LB Group has an internal model to measure operational risk which is based on the loss distribution approach. The loss frequency is calculated based on internal data. The parameterisation of loss values also includes scenario analyses and external data from the DakOR consortium, whereby elements of the extreme value theory are considered. The Value at Risk for the holding period of one year is calculated using the Monte Carlo simulation method. Correlation effects are modelled with the help of a Gaussian copula, in which qualitative and quantitative information is included in the parameters.

Risk indicators in the warning area impact on the models. If anticipated losses are considered in the planning process of the divisions, these are deducted from the model result. The VaR calculated by the model is used as a control variable for operational risks in the RBC model. An allocation process which combines size indicators with risk-sensitive elements is used to distribute the model results to the individual institutes. The models parameters are regularly subjected to a comprehensive validation and stress tests. The methods used here were revised and added to in the year under review.

Mitigation effects due to insurance or other instruments used to transfer risk are currently not considered in the quantification model. The bank considers the use of customary insurance products to be part of active risk control.

The methods and procedures implemented in the NORD/LB Group meet the requirements of § 272 of the German Solvency Regulation concerning the use of the standard approach for operational risk. The amount allowable for operational risk was calculated in the year under review using this approach. The methods used in overall bank management and to calculate the risk-bearing capacity largely meet the requirements of the German Solvency Regulation for an advanced measurement approach.

5.5.1.2 Operational Risk Management Structure and Organisation

All hierarchical levels and divisions are involved in the management of operational risks. The Managing Board stipulates the basic method of handling operational risk, taking into account the risk situation at general bank level. Responsibility for the control of operational risk within the general environment specified is decentralised and lies with the individual divisions.

NORD/LB has a security strategy and uniform standards in order to efficiently and sustainably protect the bank from harm and at the same time meet legal and supervisory requirements. Contingency measures ensure appropriate operation in the event of an emergency and a return to normal operations as quickly as possible with interlinked business continuation and recovery planning which focuses on time-critical activities and processes. The higher-level contingency and crisis organisation ensures communication and decision-making capability in the event of escalating emergencies and crises.

The Finance and Risk Control Division, as a central point, is responsible for the monitoring and the independent reporting of operational risks. It is also responsible for specifying the rules for developing and implementing the instruments provided by the Division across the Group to control operational risks. The strategic and conceptual responsibilities relating to security, contingency and crisis management are combined in the Group Security Division. The Compliance Department is organised as a department that is independent from the business divisions. It ensures in a process-integrated manner that the Group has appropriate policies and methods so that the requirements of the German Securities Trading Act can be met and money laundering, the financing of terrorism or other criminal acts can be prevented. Internal Audit is responsible for the process-independent audit to establish whether methods and procedures are properly implemented and carried out.

The operational risks of Bremer Landesbank, NORD/LB Luxembourg, Deutsche Hypo and NORD/LB CFB are managed decentrally. For the monitoring of risks, these companies have their own Risk Control units which coordinate closely with the Risk Control Division of NORD/LB. The methods and guidelines which apply throughout the Group are defined by the Finance and Risk Control Division of NORD/LB.

5.5.1.3 Operational Risk Cover and Mitigation

The NORD/LB Group possesses a suitable framework in the form of technical and organisational measures, contractual provisions and documentations of internal regulations to prevent operational risks from occurring in its processes as far as possible. With control and monitoring measures the Group ensures it complies with the relevant regulations and standards. If weaknesses in the organisation or in the control system are identified, appropriate countermeasures are taken immediately. It is the declared objective of the Group to give greater consideration to processes across the visions and in doing so reveal weaknesses in the control system and rectify any resulting damage at an early stage.

The internal control system (ICS) has a uniform structure in the NORD/LB Group. The ICS framework implemented for this purpose is based on the framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) for internal controls and includes a specific operational and organisational structure. With the use of standardised methods and procedures, an appropriate and effective ICS will be ensured throughout the bank and a lasting improvement sought.

The operational structure of NORD/LBs ICS is geared towards a recurrent control cycle. The overriding goal is the bank-wide assessment of the ICS based on the consideration of the appropriateness and effectiveness of the controls implemented. The control cycle will be supported by an organisational structure optimised for this purpose. This includes roles related specifically to the ICS, the tasks, competencies and responsibilities of which are defined and distinguished from one another. The current reporting to different groups of recipients is part of this control cycle.

Within the scope of a defined security process, NORD/LB actively controls its security risks. Deviations from the security standard and improvements required as a result of emergency and crisis exercises and the resulting measures are documented, assessed and monitored fully. External threats are also monitored regularly. The risks documented in the security process are routinely included in the comprehensive reporting of operational risks. In the IT Division, instructions on procedures, alternative capacities and backups ensure that the IT infrastructure is adequately stable. Security concepts and contingency plans supplement pre-emptive measures in order to prevent loss or damage resulting from the failure or the manipulation of systems and information. The concepts are regularly tested and updated. In order to prevent the risk that NORD/LB's internal computer centre failing, a second computer centre exists in a separate location.

Personnel risk is countered by an appropriate level of staff in terms of quality and quantity. Staff shortages are included in the contingency planning. Staff-related risks are reduced by a range of measures. The remuneration system comprises a performance-related component which provides incentives and at the same time supports sustainability and risk awareness in work practices. The requirements of the Institute Remuneration Act (Institutsvergütungsverordnung) are implemented in the NORD/LB Group. The remuneration report can be found at https://www.nordlb.com/reports/.

A balance between work and family life should make working more enjoyable and encourage staff to remain with the bank for the long term. Maintaining the staff health has top priority. In order to ensure that there is an appropriate level of staff, the NORD/LB Group pays particular attention to training and further education as well as its target number of employees. The aim is to ensure that all employees have the required skills to perform their tasks properly and efficiently.

In order to prevent criminal acts, money laundering, the financing of terrorism and other compliance risks, the Group has established comprehensive protection and prevention measures. These are verified continually by a range of control and monitoring activities and developed continually on the basis of institute-specific risk analyses. If significant shortcomings should be revealed, corrective measures will be taken and their implementation tracked.

If there are any indications of major fraud, the further course of action is decided in an ad-hoc committee at management level. Employee awareness of risks is raised with classroom and online-based training and also with a regular newsletter and ad-hoc information on current risks. There is a whistleblowing system for employees and customers so that information can be passed on securely.

In order to safeguard against legal risks, the respective Legal Department is to be consulted for example when legal action is taken and when contracts which are not based on approved standard contracts are concluded. In order to ensure that new banking regulatory requirements are implemented correctly, the Compliance Department provides evidence across all divisions and informs the divisions concerning of the requirements for action as a result of the new regulations.

The quality of external suppliers and service companies is ensured in the NORD/LB Group by concluding service level agreements or detailed specifications and the ongoing controlling of performance. A process for assessing service providers in terms of their significance in terms of risk was installed in order to meet the MaRisk concerning outsourcing. For each significant service outsourced a position is nominated which is responsible for managing services and risk relating to the business relationship. A risk assessment takes place on a quarterly basis within the scope of the method of risk indicators. An individual contingency plan is also drawn up for each significant service outsourced.

The NORD/LB Group's insurance cover is adequate. NORD/LB's insurance protection is analysed regularly with regard to its scope and effectiveness. Natural disasters and terrorist attacks are defined as force majeure and are countered by appropriate contingency concepts.

5.5.1.4 Operational Risk Reporting

Within the framework of a continuous risk management process, results from the collection of loss events, risk assessment, risk indicators and internal model are analysed and communicated to the Managing Board on a quarterly basis and the responsible divisions as and when required and at least once a year. The results are included in the quarterly RBC reporting.

5.5.2 Quantitative Information on Operational Risk

Reference is made to Table 3 in section 4.2.2 on capital requirements for disclosures relating to minimum capital requirements for operational risks.

List of Tables

The tables are based on the use cases of the expert panel on disclosure requirements of the Deutsche Bundesbank of November 2006.

List of Abbreviations

AAKA	Allgemeiner Arbeits- und Kreditausschuss (General Working and Credit Committee at NORD/LB)
ABCP	Asset-Backed Commercial Papers
ABS	Asset-Backed Securities
ALCO	Asset Liability Committee
AT	General Part
BaFin	Bundesanstalt für Finanzdienstleistungs-aufsicht (German Federal Financial Supervisory Authority)
CCF	Credit Conversion Factor
COSO	Committee of Sponsoring Organizations of the Treadway Commission
CPC	Credit-Pricing Calculator
CRC	Credit Risk Control
CRM	Credit Risk Management
CRO	Chief Risk Officer
CRSA	Credit Risk Standard Approach
CSSF	Commission de Surveillance du Secteur Financier (Luxembourg Financial Supervisory Authority)
DakOR	Datenkonsortium zur Sammlung von Schadenfällen im Kontext der operationellen Risiken (Data Consortium for the collection of loss events in the context of Operational Risk)
DSGV	Deutscher Sparkassen- und Giroverband (German Association of Savings Banks and Girobanks)
EAD	Exposure at Default
EBA	European Banking Authority
EL	Expected Loss
EUR	Euro
GRC	Group Risk Committee
GSS	Global Securitization Services
HGB	Handelsgesetzbuch (German Commercial Code)
IAA	Internal Assessment Approach
ICAAP	Internal Capital Adequacy Assessment Process
ICS	Internal Control System
IFD	Initiative Finanzstandort Germany (Initiative for Germany as a Financial Location)
IFRS	International Financial Reporting Standards
IRBA	Internal Ratings Based Approach
KSK	Konzernsteuerungskreis (Group Control Committee)
LAPA	Liquidity Asset Purchase Agreement
LGD	Loss Given Default
Lux GAAP	Luxembourg Generally Accepted Accounting Principles (National Accounting Regulations of the Grand Duchy of Luxembourg)
MaRisk	"Mindestanforderungen an das Risiko-management" (Minimum Requirements for Risk Management)
MaSan	"Mindestanforderungen an die Aus-gestaltung von Sanierungsplänen" (Minimum Requirements for Recovery Plans)
NORD/LB	Norddeutsche Landesbank Girozentrale, Hanover
NPP	New-Product Process
OECD	Organisation for Economic Co-operation and Development
ÖffSchOR	Datenbank Öffentliche Schadenfälle OpRisk (database of public loss events relating to operational risk)
PD	Probability of Default
RBA	Rating Based Approach
Repo	Repurchase Agreement
RSU	Rating Service Unit GmbH & Co. KG
RBC	Risk-Bearing Capacity
RW	Risk Weight
RWA	Risk-Weighted Assets
SCM	Special Credit Management
SFA	Supervisory Formula Approach
SR	Sparkassen Rating und Risikosysteme GmbH
USD	US Dollar
VaR	Value-at-Risk
VÖB	"Bundesverband Öffentlicher Banken Deutschlands" (German Federal Association of Public-Sector Banks)

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