Risk report

Risk policy and strategy

The basic principles underlying the Deka Group's risk policy and strategy remain largely unchanged from the previous year. In order to achieve its commercial objectives, the Deka Group accepts certain risks in line with strategic requirements. These risks are limited by a comprehensive risk management system that covers all types of risk and all business divisions, sales and corporate centres in order to ensure the success of the Deka Group as a business. The framework for business and risk management is provided by the general concept of risk appetite (Risk Appetite Framework – RAF), which forms the main basis for assessing the adequacy of internal capital and liquidity (ICAAP/ILAAP) and is an integral part of the Deka Group's strategy system.

Concept of risk appetite

The first starting point for the concept of risk appetite is a description of the desired risk profile that is implied by our customer-centred business model.

To successfully implement its vision of the *Wertpapierhaus* while avoiding conflicts of interest, the Deka Group exploits the advantages arising from the interconnection of its business activities in fund management, lending and capital markets. These activities give rise principally to counterparty, market, business and operational risks, as well as to liquidity risk (which does not directly affect the income statement).

The Deka Group's focus remains on added-value-generating operations that are in demand from both the savings banks and their end customers where the risks are strictly limited and for which adequate expertise is available. As part of the long-term business strategy defined by the Board of Management and the risk strategy consistent with it, risk positions are entered into primarily in connection with customer transactions when they can be hedged on the market.

At the same time, risks are incurred if they are conducive to liquidity management or if they are required to leverage synergies in investment fund business. Business activities in new products or new markets, and the establishment or acquisition of new business units, are undertaken only after a thorough risk evaluation has been performed.

An efficiently structured risk inventory ensures that the Deka Group has an overview of its risk profile at all times. The risk inventory exercise is carried out on an annual basis, and at other times as required, in order to determine which risks could have a significant negative impact on its financial position (including in terms of capital adequacy, earnings or liquidity). In the course of this process, DekaBank takes into account both external as well as internal factors, the underlying assumptions of which are reviewed regularly and on an ad hoc basis as necessary.

Particular consideration is given here to risk concentrations to which the Deka Group consciously exposes itself in connection with its business model. The main examples of this are the Group's focus on the domestic public sector, on German savings banks and their customers, and on selected capital market participants and central counterparties, which is partly due to its function as a securities and collateral platform.

The second starting point for the concept of risk appetite, in addition to the risk profile, is risk capacity – the maximum amount of risk that the Deka Group can accept with respect to its available funds. The risk capacity for profit-affecting risks is set in the course of the economic risk-bearing capacity analysis, while taking due account of risk concentration. It represents the upper limit of acceptable risk and corresponds to the total risk coverage potential of the Deka Group. For liquidity risk (insolvency risk), risk capacity is defined as the amount of free liquidity that is in principle available. It thus corresponds to the positive balance of the funding matrix for normal business operations.

Risk appetite is defined, within the scope of these risk capacity values, as the overall aggregate risk for individual risk types that the Deka Group is willing to accept in order to achieve its strategic objectives and business plan.

The details of the business and risk strategy are specified and quantified as part of medium-term planning. Medium-term planning involves an integrated planning process for profits, capital and risk for the next three years, with account being taken of potential adverse developments.

Risk limits for profit-affecting risks are derived from the risk and capital planning, taking into account the desired risk profile and the available risk capacity (risk capital allocation). The overall risk appetite is laid down as part of this process. It is set via a two-stage process. The maximum risk appetite (i.e. the upper limit) is obtained by deducting a capital buffer for stressed circumstances from the risk capacity. The actual risk appetite for profit-affecting risks is the risk capital allocated for the overall risk position.

Non-financial risks are quantified, insofar as possible, as subcategories of operational risk and business risk. In addition to the quantitative risk appetite, qualitative overall risk tolerance rules are also set so that the particular features of non-financial risks are appropriately reflected. Such risks include compliance risk and reputational risk, among others.

For liquidity risk, the Deka Group has defined its risk appetite such that an indefinite survival horizon exists under an extreme hypothetical stress scenario of a simultaneous idiosyncratic and market-wide stress event. Compliance with this risk appetite is ensured firstly by illustrating the impact of the simultaneous occurrence of institute-specific and market-wide stress events in a "combined stress scenario" funding matrix. As a second step, limits on liquidity balances across all relevant maturities that allow only positive balances ensure that the Group is solvent at all times with an indefinite survival horizon. An early warning threshold set at €1.5bn represents a first escalation level in this context.

The concept of risk appetite also covers procedures for monitoring compliance with allocated risk capital. These include management instruments, regular reporting, rulebooks, controls and processes, as well as risk governance in the sense that roles and responsibilities are laid down for implementing and monitoring risk appetite. Taking risk concentrations into account, the Deka Group has thus established limits for all risks classified as significant during the risk inventory and has implemented rigorous risk management.

The concept of risk appetite described above and the procedures for monitoring compliance with it form one of the three fundamental pillars of the Group’s risk culture. They are complemented by sound governance and a remuneration system that encourages appropriate risk behaviour. Processes are in place to ensure that these three pillars are continuously adjusted to changing circumstances. Staff and leadership behaviour – risk culture in the narrower sense – are shaped by the rules set down in the Code of Ethics and by the Deka Principles of Leadership, in addition to the aforementioned formal components.

Strategy process

In accordance with the German Minimum Requirements for Risk Management (*Mindestanforderungen an das Risikomanagement*, MaRisk), the Group uses a systematic strategic process to ensure that its Group-wide business strategy, management and structure, as well as the corresponding divisional and sales strategies and the risk strategy, are reviewed on a regular basis. The reviews consider whether these items are consistent, complete, sustainable and up-to-date. The process covers the planning, implementation and evaluation of the strategies and any necessary adjustments to them. Division-specific targets for risk and profit are used in order to ensure that the business and risk strategy is implemented appropriately in the business divisions.

The individual risk strategies developed for significant types of risk identified during the risk inventory are derived from the Deka Group’s risk strategy as well as the strategies of the business divisions. These risk strategies provide specific details regarding risk monitoring and management. They are also reviewed at least once a year, revised if necessary, approved by the Board of Management and discussed with the Administrative Board.

Organisation of risk management and control

Board of Management and Administrative Board

The Board of Management is responsible for the development, promotion and integration of an appropriate risk culture within the Deka Group and is clearly committed to risk-appropriate behaviour. It is also responsible for establishing, enhancing and monitoring the effectiveness of the risk management system. Within the risk management organisation, the Board of Management makes decisions on the Deka Group’s strategy and defines the amount of overall risk permitted at Group level. This includes decisions on the form and implementation of the risk appetite concept. The Board also sets the economic capital allocations for the different types of risk and the business divisions, including the Treasury corporate centre and non-core business. In particular, it also decides the limits for the individual risk types at the Group level.

The Administrative Board, together with the committees it has established – the Risk and Credit Committee and the Audit Committee – is responsible for monitoring the Deka Group’s risk management system. Prior to every meeting of the Administrative Board, the Risk and Credit Committee meets to discuss in detail matters impacting the Group’s risk exposure and risk management. It also reviews the Group’s strategic direction with the Board of Management. The Risk and Credit Committee also acts as a credit approval body within the scope of the applicable authorisation guideline. The Audit Committee is an oversight body that concerns itself with the results of internal and external audits. It thereby contributes to ensuring the appropriateness and effectiveness of the Deka Group’s monitoring, control and risk management arrangements.

Management committees
The Board of Management is supported in its management role by various management committees.

The Risk Management Committee (*Managementkomitee Risiko* – MKR) meets once a month and advises the Board of Management on matters regarding significant risks at Group level and on addressing, analysing and assessing issues that could have a significant influence on the total risk profile or profitability of the Group. The committee thus makes an important contribution to promoting a Group-wide risk culture. The voting members of the MKR include the Head of the Risk Control department, the managers of the Risk Control, Credit Risk Office, Finance and Risk Control (Capital Market Funds) departments, the COOs for the Asset Management Securities and Asset Management Real Estate business divisions, the COO for the banking divisions & depositary, and the heads of the Compliance and Legal corporate centres. The MKR is supported in this function by sub-committees, which each have individual core duties.

The Management Committee for Assets and Liabilities (*Managementkomitee Aktiv-Passiv* – MKAP), which meets every two weeks, primarily drafts resolutions on matters relating to the management of interest rates, currency, liquidity and refinancing and to the capital and balance sheet structure. In addition, it plays a role in limiting market price risk by making recommendations on the allocation of top-level limits for the Capital Markets business division and the Treasury corporate centre. Measures to be taken in the event of a liquidity crisis are also confirmed in the course of the MKAP's regular review. Membership of the MKAP is made up of the departmental heads responsible for Treasury, Finance, Risk Control and Capital Markets and the heads of the Treasury, Capital Markets, Risk Control and Finance corporate centres.

Sub-committees of the Risk Management Committee
The Stress Testing Committee supports the Board of Management in relation to the overall appraisal of the regular macroeconomic stress tests (covering all risk types) and risk-type-specific stress tests. Stress tests form an integral part of the Deka Group's risk management. The duties of the Stress Testing Committee include in particular the assessment and appraisal of stress test results as well as general responsibility for setting stress test scenarios and processes.

The Models Committee is a Group-wide, cross-divisional body that pools together and assesses current trends and validation issues with regard to valuation and risk models, and prepares content accordingly for the MKR, the Board of Management or general management. The committee thus makes an important contribution to ensuring overarching consistency in the models employed. Furthermore, the Models Committee represents the central operational body for assessing model risks, with the aim of ensuring appropriate treatment of model risk in the Deka Group.

Additional committees that are relevant to counterparty risk management include the Country Risk Committee, which assesses country risk, the Monitoring Committee, which monitors and manages exposures at risk of default, the Risk Provisioning Committee, which performs regular analysis and examination of matters relating to the planning, monitoring and management of loan loss provisions as well as monitoring and managing restructuring and liquidation cases, and the Rating Committee, which monitors developments in the methodology for internal rating procedures and their implementation (see counterparty risk).

The duties of the Risk Talk are to regularly analyse, discuss and make decisions regarding matters in connection with the risk management and monitoring processes in the Capital Markets business division's operational processes. The emphasis is on the assessment, in relation to market or counterparty risks, of matters that could significantly influence the risk profile and/or profitability of the Capital Markets business division.

Business divisions and corporate centres
All business divisions and the Treasury corporate centre operate within the scope of the strategic requirements. In addition, they operate within the scope of framework guidelines set by the Board of Management on the basis of recommendations from the MKR and MKAP. The Treasury corporate centre also manages market price risks in the banking book, liquidity and refinancing of the Deka Group within these limits.

The main responsibility of the Risk Control corporate centre, which is independent of the business divisions, is to develop a standardised and self-contained system to quantify, limit and monitor all significant risks associated with the Group's business activities. Its risk measurement procedures are continually updated in line with economic and regulatory requirements. Risk Control also monitors compliance with the limits approved by authorised decision makers, and immediately reports any limit breaches to them.

The Credit Risk Office corporate centre is responsible for providing a second opinion independent of front office operations, for creating and/or approving ratings and for verifying and approving specific collateral. In addition – acting independently of front office operations – the Credit Risk Office is responsible for closely monitoring and managing non-performing and troubled loans as well as for dealing with restructuring and liquidation cases (work-out exposures). The office also acts as the central statistical monitoring centre for early-stage risk identification.

On behalf of the Deka Group, the Compliance corporate centre covers the regulatory functions of the Compliance Officer as set out in the German Banking Act (*Kreditwesengesetz* – KWG), the German Securities Trading Act (*Wertpapierhandelsgesetz* – WpHG) and the German Investment Code (*Kapitalanlagegesetzbuch* – KAGB). It also covers those functions assigned to the Money Laundering Officer pursuant to the German Money Laundering Act (*Geldwäschegesetz* – GwG) and the KWG, and represents the "Central Office" for the Money Laundering Officer and in relation to the obligations to prevent criminal acts under section 25h KWG. Furthermore, the Compliance corporate centre fulfils the roles of Group Money Laundering Officer, of "Responsible Officer" as required for Qualified Intermediaries (QIs) under the Foreign Account Tax Compliance Act (FATCA), and of Information Security Officer. Alongside the provision of training and advice, the corporate centre reviews controls and procedures implemented by the operational units in relevant areas to determine whether they are appropriate and effective. In this way, by addressing any issues with the respective responsible specialist units, it enables compliance risks to be minimised for the Deka Group.

The Internal Audit corporate centre is an independent unit that supports the Board of Management and other management levels in their control and monitoring functions. It examines and assesses all activities and processes on the basis of an annual audit plan that is drawn up with a risk-based approach, using a scoring model, and then approved by the Board of Management. One of the unit's most important tasks is to evaluate the business organisation with a focus on whether the internal control system and, in particular, risk management and monitoring are suitable and appropriate. Internal Audit also audits compliance with legal, regulatory and internal banking requirements. The Administrative Board is responsible for monitoring the internal audit system.

In addition, all corporate centres and business divisions are responsible on a decentralised basis for identifying, measuring and managing their respective operational risks.

Organisational structure of risk management in the Deka Group *(Fig. 18)*

		Counter-party risk	Market price risk	Liquidity risk	Operational risk	Business risk	Sharehold-ing risk	Property fund risk
Administrative Board								
Risk and Credit Committee	- Overview of current risk situation/risk management system - Discussion of strategic direction with Board of Management - Credit approval body	•	•	•	•	•	•	•
Audit Committee	- Reviews results of internal and external audits	•	•	•	•	•	•	•
Board of Management	- Determines strategic direction - Responsible for Group-wide risk management system - Sets return on equity target and allocates risk capital to risk types and business divisions - Sets overall limit and approves limits within risk types	•	•	•	•	•	•	•
Management Committee for Risk (Management-komitee Risiko – MKR)	- Assists the Board of Management in matters relating to significant existing and prospective risks - Supports the Board of Management with the evaluation of issues that have a significant effect on the overall risk profile - Prepares draft resolutions for the Board of Management and makes decisions within the scope of the authority granted to it - Supplemented by various sub-committees	•	•	•	•	•	•	•
Stress Testing Committee	- Assesses and appraises stress scenarios and stress test results - Specifies stress testing processes - Reports and makes recommendations for action to the Board of Management	•	•	•	•	•	•	•
Models Committee	- Assesses current trends and validation issues with regard to valuation and risk models - Central operational body for assessing model risks	•	•	•	•	•	•	•
Country Risk Committee	- Assesses country risks	•						
Monitoring Committee	- Monitors and manages non-performing loans and loans on the watch list	•						
Ratings Committee	- Enhances and maintains internal rating procedures	•						
Risk Provisioning Committee	- Plans, manages and monitors loan loss provisions - Monitors and manages restructuring and liquidation cases	•						
Risk Talk	- Supports the MKR/Board of Management in connection with risk management and monitoring processes in the Capital Markets business division's operational processes - Emphasis on market price and counterparty risk	•	•	•	•	•		
Management Committee for Assets and Liabilities (Management-komitee Aktiv-Passiv – MKAP)	- Supports the Board of Management in matters relating to interest rate and FX management, liquidity and funding management, capital and balance sheet structure management - Proposes, introduces and monitors risk-mitigating measures in liquidity emergencies - Prepares draft resolutions for the Board of Management	•	•	•	•	•	•	•

		Counter-party risk	Market price risk	Liquidity risk	Operational risk	Business risk	Sharehold-ing risk	Property fund risk
AM Securities business division	- Conducts transactions in line with strategic guidelines	●	●	●		●	●	●
	- Identifies, measures and manages operational risks on a decentralised basis				●			
AM Real Estate business division	- Conducts transactions in line with strategic guidelines	●	●	●		●	●	●
	- Identifies, measures and manages operational risks on a decentralised basis				●			
AM Services business division	- Conducts transactions in line with strategic guidelines	●	●	●		●		●
	- Identifies, measures and manages operational risks on a decentralised basis				●			
Capital Markets business division	- Conducts transactions in line with strategic guidelines	●	●	●		●		
	- Makes decisions within the guidelines proposed by the MKAP and established by the Board of Management and sets limits within the division		●	●				
	- Identifies, measures and manages operational risks on a decentralised basis				●			
Financing business division	- Conducts transactions in line with strategic guidelines	●		●		●	●	
	- Identifies, measures and manages operational risks on a decentralised basis				●			
Treasury (Corporate Centre)	- Conducts transactions in line with strategic guidelines	●	●	●				
	- Makes decisions within the guidelines proposed by the MKAP and established by the Board of Management and sets limits within the corporate centre - Manages market price risks in the banking book, manages the liquidity and refinancing of the Deka Group		●	●				
	- Identifies, measures and manages operational risks on a decentralised basis				●			
Risk Control (Corporate Centre)	- Develops and updates system to quantify, analyse and monitor risks - Reports to Board of Management and Administrative Board - Determines/monitors risk-bearing capacity - Monitors approved limits	●	●	●	●	●	●	●
Credit Risk Office (Corporate Centre)	- Administrative office for early risk identification - Market-independent second recommendation - Reviews and/or approves ratings - Checks certain collateral - Monitors management of non-performing and troubled loans	●						
	- Identifies, measures and manages operational risks on a decentralised basis				●			
Equity investments (Corporate Centre for Strategy and Equity Invest-ments)	- Manages equity investment portfolio						●	
	- Identifies, measures and manages operational risks on a decentralised basis				●			
Compliance (Corporate Centre)	- Functions as Compliance Officer as set out in the German Banking Act (KWG), German Securities Trading Act (WpHG) and German Investment Code (KAGB), as Money Laundering Officer pursuant to the German Money Laundering Act (GwG) and as Central Office in line with the requirements of the KWG - Functions as Responsible Officer under QI and FATCA - Monitors IT security measures				●			
IT Security & BCM (IT Corporate Centre)	- Implements IT security measures and is responsible for business continuity management				●			
Other Corporate Centres	- Identify, measure and manage operational risks on a decentralised basis				●			
Internal Audit (Corporate Centre)	- Audits and evaluates all activities/processes (especially risk management system)	●	●	●	●	●	●	●

Three Lines of Defence model

Risk management involves active management of the Deka Group's risk position. The distribution of risk-related activities and associated controls across several organisational units requires proper assignment and delineation of the respective responsibilities and functions. Ever greater significance is attributed to an effective and properly functioning risk management system across all organisational units, which has no control gaps, conflicts of interest or redundancy and takes into consideration the risk strategy of DekaBank. This also promotes clear-cut governance.

The "Three Lines of Defence" model practised by DekaBank is designed to ensure compliance with and verification of the risk framework stipulated by the risk strategy. The operational business units responsible for exposures are – as the first line of defence – responsible for managing, assessing and quantifying the risks identified in any business conducted. This also includes transactions to minimise total risk at Group level in day-to-day operations. The controls forming the first line of defence are supplemented and enhanced by the independent downstream organisational units that carry out risk management functions as part of the second line of defence (e.g. the Risk Control, Credit Risk Office and Compliance corporate centres). These units monitor compliance with the requirements of corporate policy independently of trading operations. The third line of defence is the Deka Group's Internal Audit department, which also exercises its functions independently.

It is ensured that the requisite personnel resources are available to carry out the control functions, both in terms of the staff capacity needed to assess and monitor risks and in terms of the sufficient capability of the staff concerned. The systems and equipment provided for all control functions ensure that the ongoing processing, management and monitoring requirements arising from the nature and scope of the business carried out are met.

Further developments in risk management

During the year under review, the Deka Group refined parts of its risk management and control both in organisational terms and in terms of risk modelling, taking due account of regulatory requirements.

MaRisk, the document which forms the basis of regulation in Germany, was amended in line with new European and international requirements by way of the fifth revised version, which was passed by BaFin and the Deutsche Bundesbank in October 2017. As a systemically important institution, the Deka Group is subject to direct ECB supervision and thus applies and implements European regulations in any case. The key amendments to MaRisk with respect to data aggregation, risk reporting, risk culture and outsourcing thus do not represent substantial new requirements for the Group.

The new requirements regarding the architecture and quality management of risk data and the associated reporting largely correspond to the Principles for Effective Risk Data Aggregation and Risk Reporting issued by the Basel Committee (BCBS 239), implementation of which continued during the year.

The additional MaRisk requirements regarding risk culture and governance are also already in the course of being implemented. During the second half of the year, a risk culture project was carried out with the aim of building up a DekaBank-specific risk culture process and anchoring it within a concrete framework. The new, more precise demands under MaRisk with regard to risk governance relate *inter alia* to the requirement that the risk control function be headed by a Chief Risk Officer who is responsible neither for finance and accounting nor corporate organisation and IT. As DekaBank had already implemented these requirements, the identity of the heads of the internal control functions did not change during the year. Manuela Better, the member of the Board of Management responsible for risk, thus remains in charge of the risk control function, while Harald Alberts and Dr Matthias Pfeiffer remain the heads of the Compliance and Internal Audit departments respectively.

Risk governance was also strengthened by the organisational separation of the development and validation of risk models, which was carried out in the second quarter of 2017. This measure should also be viewed in context of the ongoing supervisory review of internal models under Pillar I of the Basel capital regulations (Targeted Review of Internal Models – TRIM). The review is based on the internal ratings-based approach to credit risk (IRBA), the internal models approach to market risk (IMA) and the internal model method (IMM) for estimating exposure to counterparty risk. To date, DekaBank has conducted an on-site review of the market risk pillar. The aim of TRIM is to reduce the variability of model results and thereby increase confidence in internal models.

The new MaRisk requirements regarding outsourcing management largely reflect the auditing practice that the supervisory authority has long recommended. One of the new requirements is for a central outsourcing management office with documentation, support and coordination duties, which is to be established depending on the nature, scope and complexity of the outsourced activities. The Deka Group's Central Outsourcing Management (ZAMD) section coordinates the evolution of the outsourcing strategy, lays down overarching governance rules for outsourcing, assists with their implementation and checks compliance with requirements. ZAMD also acts as the link between the Board of Management of DekaBank and the senior management of other Deka Group companies on the one hand and the departments responsible for non-centralised outsourcing management on the other. Restrictions on the outsourcing of control and core banking areas are strictly observed.

The potential economic impact of changes to the Credit Risk Standardised Approach (CRSA) and the Internal Ratings Based Approach (IRBA) that are currently planned as part of the finalisation of Basel III (Basel IV) continues to be monitored. The same applies with regard to the Fundamental Review of the Trading Book (FRTB) and the scheduled introduction of the new Standardised Measurement Approach (SMA) to calculating operational risk capital, both of which could also potentially affect Pillar II of the Basel framework.

In addition, an on-site audit of operational risk management was carried out at DekaBank on behalf of the ECB in the first quarter of 2017. The audit focused in particular on the procedural aspects of the operational risk management system. The final audit report, made available at the year-end, concludes that DekaBank's procedures and processes are generally in line with the requirements under section 25a of the German Banking Act.

The aggregate effect of the adjustments made during the year to the risk models was to increase risk. Despite these effects, utilisation of risk capacity remained at a non-critical level overall.

The expanded mapping of the general interest rate risk for guarantee products and pension obligations, which came into operation in the third quarter of 2017, led to a noticeable increase in market price risk in the Asset Management Securities business division. It also resulted in an increased deduction for pension risk and thus to a decrease in risk capacity and maximum risk appetite. The adjustment results mainly from taking account of the interest rate risk on the liability side. A stochastic model for the yield curve also came into operation for guarantee products at the year-end. The model takes account of diversification effects between funds and interest rates. This resulted in a reduction of market price risk at the year-end relative to the third quarter.

Changes to the loan portfolio model implemented at the start of 2017 also led to a moderate increase in counterparty risk. In addition to the revision of the factor model, the number of migration matrices was reduced and the parametrisation of loss ratios was updated. The overall limiting of shadow banking exposures – in line with European Banking Authority (EBA) requirements – was likewise implemented from the start of the year. Shadow banking entities include, among others, money market funds, credit funds and inadequately regulated credit institutions.

Methodology changes in relation to business risks led overall to a reduced risk level in the year under review. Changes to models included the adoption of a VaR approach based on planned commission income and relevant risk factors, in place of the gross method followed in banking business.

The management and monitoring of liquidity risk was improved by way of an adjustment to the model. Instead of the relative prolongation rates previously used for accounts and deposits, which fluctuate from day to day based on the current portfolios, annually calculated absolute floor values are used. These floor values are constantly monitored and recalculated only if threshold values are exceeded. This leads to a stabilisation of liquidity balances.

Overall risk position of the Deka Group

The risk position presented in the risk report relates to the Deka Group's risk position overall, and therefore corresponds to the definition used as the basis for presentation of the Deka Group's business development and profit performance in the economic report. The report focuses on risks that are relevant from the point of view of the Group. Opportunities that might be used to counteract an increase in risk are presented separately in the opportunities report.

Risk definitions, concentrations and measurement

The individual risk types for the purposes of risk monitoring and risk management are derived from the annual risk inventory. Risk types considered to be significant, which are backed by economic risk capital, include market price risk, counterparty risk, operational risk, liquidity risk and business risk. Liquidity risk is also classified as significant but is managed and monitored outside the risk-bearing capacity analysis.

A distinction is drawn between financial and non-financial risks, based on the context in which risks are incurred and/or arise. Financial risks are incurred consciously in direct connection with individual transactions in order to generate income. Non-financial risks, by contrast, are inherent in a particular business activity but are not incurred in order to achieve profit. Non-financial risks include, in particular, operational risk and business risk.

Counterparty risk

Counterparty risk is the risk of financial loss resulting from the deterioration in the creditworthiness of a borrower, issuer or other counterparty (migration risk) or when the counterparty is unable to fulfil its contractually-agreed obligations, or unable to fulfil them in a timely manner (default risk). Counterparty risk also includes country risk in the form of transfer risk, which results not from the business partner itself, but instead is due to its location abroad.

In principle, the Deka Group makes a distinction in counterparty risk between position risk, advance performance risk and potential future exposure (PFE) risk. Position risk comprises borrower and issuer risk, as well as replacement risk and open position risk. Borrower risk is the risk that outstanding loan payment obligations to the Deka Group will not be paid or will not be paid in a timely manner. Issuer risk is the analogous counterparty risk associated with securities. Replacement risk is the risk that if a business partner were to default, a replacement transaction would have to be conducted at less favourable market conditions. Open position risk (performance disruption) results if a delay occurs in the performance of a contractually agreed obligation by a business partner. Advance performance risk represents the risk that a business partner will not pay the contractually agreed consideration after advance performance has been rendered by the Deka Group. Potential future exposure (PFE) risk comprises the risk arising from potential market price fluctuations in relation to repo loan transactions, synthetic lending transactions and other derivatives transactions.

Market price risk
Market price risk describes the potential financial loss from future market fluctuations over a fixed time horizon and hence includes interest rate risk (including credit spread risk), currency risk and share price risk.

General interest rate risks result from changes in currency-specific swap curves, with different fixed-rate periods having an effect as well. These risks also include volatility risk in interest rate derivatives and options (cap/floor and swaptions).

Credit spread risks depend on changes in the issuer-specific premiums on the reference curves. These premiums depend primarily on the creditworthiness of individual issuers or sectors. Premiums for individual issues (residual risks) are also relevant.

Share price risks (including property fund risks as from 2018) are mapped as risk factors via the individual shares, indices or funds and are influenced by risks arising from share or index volatility. The associated option risks or volatility risks are also taken into account here. Currency risks reflect changes in exchange rates.

The process for identifying and quantifying these risks does not differentiate between the trading book and banking book; the same procedures are applied for all DekaBank portfolios, irrespective of the portfolio type. In addition, market price risks are calculated taking into account guarantees that the Deka Group has provided for individual investment funds and are subject to a corresponding economic capital allocation.

Liquidity risk
In terms of liquidity risk, the Deka Group makes a distinction between insolvency risk (liquidity risk in the stricter sense), liquidity maturity transformation risk and market liquidity risk.

Insolvency risk describes the risk that the Deka Group will be unable to meet its current and future payment obligations in a timely manner because liabilities exceed the available liquid funds.

Liquidity maturity transformation risk describes the risk that arises from a change in DekaBank's own refinancing curve in the event of imbalances in the liquidity-related maturity structure.

Market liquidity risk is understood as the risk that transactions cannot be settled or closed out, or can only be settled or closed out at a loss, due to inadequate market depth or because of market disruptions.

Operational risk
Operational risk means the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

Operational risk also includes legal risks as long as these do not refer to future business activities. Reputational risks as a result of loss events are not included in the calculation of the loss potential, but they are taken into account in methods and procedures and are assessed from a qualitative perspective.

Business risk
Business risk concerns adverse variances from plan that result from changes in customer behaviour, competitive conditions or the general economic and legal framework. The Deka Group considers all factors that have an unexpected negative impact on profit as a result of volume and margin changes, and are not attributable to any other type of risk, to be material.

Reputational risk
Reputational risk describes the danger that developments and loss events that have occurred in connection with other types of risk may have a negative impact on the external image of the Deka Group, thereby diminishing the trust that customers, business and sales partners, rating agencies or the media have in the Bank's competence. This can lead to additional losses, declining revenue, lower liquidity levels or a lower enterprise value. In view of this, reputational risks are not seen as a separate type of risk, but rather as a component of, or as factors that increase, business and liquidity risk.

Model risk
Model risk refers firstly to potential losses arising from errors in the design, implementation or use of valuation or risk models, or from incorrectly evaluating the appropriateness of a particular model. It is treated as a sub-category of operational risk. Model risks are incorporated directly into the Deka Group's risk-bearing capacity by developing and assessing corresponding scenarios as part of the self-assessment process.

Model risk also describes the risk of potential losses arising as a result of the deliberate selection, specification, choice of parameters or calibration of models, and that as a consequence could lead to uncertainty in valuation or, where relevant, to their being insufficiently taken into account in risk-bearing capacity.

Model risks in relation to valuation models are directly recognised by creating appropriate provisions for models under liabilities. By contrast, model uncertainties arising from the specifications of risk models are viewed in conjunction with the respective risk type and specifically examined using detailed validation exercises. If necessary, a buffer is created for model uncertainties as part of the annual risk capital planning process; this reserved economic capital will consequently no longer be available for allocation.

Further types of risk
The risk inventory process has identified other types of risk for which economic capital is set aside. Currently, however, these risks have only a minor influence on the Group's risk-bearing capacity. These include shareholding risk and property fund risk.

The Deka Group defines shareholding risk as the risk of financial loss due to impairment of the portfolio of equity investments, insofar as they are not consolidated in the balance sheet and therefore already included under other types of risk.

Property fund risk results from the possibility of an impairment in the value of property fund units held in the Group's own investment portfolio. It will be treated as an aspect of market price risk from 2018 onwards.

Other non-financial risks identified during the risk inventory are covered by superordinate risk categories. These include, for instance, conduct risk and tax risk, which are dealt with especially within the scope of operational risk. Qualitative risk tolerance rules also exist for each of these risks.

Risk concentrations
Risk concentrations describe those risks arising primarily from an uneven distribution of business partner relationships or an uneven sensitivity of the portfolio in relation to major risk factors which could subsequently lead to significant economic losses for the Deka Group.

Risk concentrations can occur both within the major risk types (intra-risk concentrations) as well as across different significant types of risk (inter-risk concentrations). These are a focus of risk management and monitoring in terms of tools looking at specific types of risk as well as those that apply across risk types.

Division-specific risk profiles
The divisional structure was altered with effect from the beginning of 2017. Activities are now divided into five business divisions: Asset Management Securities, Asset Management Real Estate, Asset Management Services, Capital Markets and Financing. This creates enhanced governance and an even clearer separation at leadership level between banking business and asset management.

Asset Management Securities business division

Because of its focus on the active management of securities funds and investment solutions and services, this division principally generates operational and business risks for the Deka Group. These may be exacerbated by reputational risks in connection with the "Deka" brand or other Deka Group brands. In addition, managed guarantee products create counterparty and market price risks for the Deka Group.

Asset Management Real Estate business division

As with Asset Management Securities, the principal operational and business risks in this business division arise from active fund management.

Asset Management Services business division

This business division, too, principally generates operational and business risks for the Deka Group. These result from the provision of banking services for asset management.

Counterparty and market price risks also arise to a small degree from the operations of S Broker, which is included in this division.

Capital Markets business division

Customer-led business activity in the Capital Markets business division gives rise in particular to market price, counterparty and issuer risks. These arise primarily from currency, securities lending and securities repurchase transactions, from trading in financial instruments with financial institutions, savings banks, funds and companies, and in relation to DekaBank's strategic investments. In relation to the division's liquidity investments, credit spread risks and, to a lesser extent, interest rate risks arise in relation to the market price risk in the strategic investments unit. In addition, the division consciously exposes itself to risk concentrations, principally in relation to supplying liquidity in order to support Deka funds and the savings banks. As the central securities and collateral platform in the association, the Deka Group generates economies of scale and scope. This results especially in concentrations with increased gross risk in relation to individual major banks, market makers that act for the Deka Group and central counterparties. Risk concentrations also exist in relation to individual Landesbanks as association partners. The collateral in securities lending transactions can also give rise to risk concentrations in collateral, which are limited by the rules in the Collateral Policy.

Financing business business division

The business activities of the Financing business division in the segments it focuses on (essentially the financing of savings banks, infrastructure, and vehicles, as well as ECA-backed export finance) create corresponding focal points, primarily in counterparty risk. In accordance with the business model, this also leads to regional risk concentrations in Germany, as well sector-based risk concentrations in relation to the financial sector.

In addition to specialised financing, DekaBank's real estate financing has also been classified within the division since the start of 2017 (having previously been classified within the Real Estate business division). Real estate financing also leads primarily to counterparty risks, although such lending usually involves individual loans with a varying regional focus.

Treasury

The Treasury corporate centre's various functions, especially management of the liquidity reserve, give rise to counterparty risk, chiefly from investments focusing on Germany and the public sector. Market price risks consequently arise (primarily in relation to credit spreads), as do liquidity risks.

Non-core business

The activities classified as non-core business also give rise primarily to counterparty and market price risks. Going forward, the Group aims to decrease its risk position here even further by continuing to reduce volumes while safeguarding assets.

On account of the low gross loan volume, the remaining non-core business portfolios were fully transferred to the Capital Markets business division as of 1 January 2018.

Risk management instruments covering all risk types

The Deka Group essentially uses three tools for overall management and monitoring of the risks that result as part of the strategic requirements of the Group's business activities. These tools comprise the risk inventory, risk and capital planning, risk-bearing capacity (including stress testing) and capital allocation. These are supplemented by specific individual tools for the operational management and monitoring of individual types of risk. These individual tools are described in the sections covering the individual risks.

Risk inventory

The Deka Group determines and assesses its overall risk profile using a risk inventory that is performed on both a regular and an ad hoc basis. All significant risks and the associated risk concentrations are identified in this process. The risk inventory is the starting point for the analysis of risk-bearing capacity and, together with the risk strategy, forms the basis for the design of further risk management tools. It is divided into a preliminary analysis, a review of the risk universe for relevance and materiality to the Deka Group and the individual business divisions, and preparation of the results. In addition, major risk issues for the Deka Group are discussed each month by the MKR.

Risk and capital planning

The risk-bearing capacity of the Deka Group is determined both in terms of the current situation and based on forecast business activity. As part of the medium-term business planning process, DekaBank's Board of Management sets out the risk appetite for operational activities and its allocation to the individual types of risk and for the business divisions, covering the next three budget years. This process also allows potential risk concentrations to be effectively addressed at an early stage. Any adjustments needed during the year are undertaken when recommended by the MKR and adopted by a resolution of the Board of Management.

Risk-bearing capacity and capital allocation

In principle, risk-bearing capacity is used to determine the maximum level of risk that can be incurred (impacting the income statement), taking into account risk concentrations. Risk-bearing capacity is analysed monthly. In the course of the analysis, the risk capacity (in the form of risk coverage potential) and the current risk level are determined, compliance with the guidelines and limits is monitored and current results are compared to plan. The Deka Group's total risk, as examined in the risk-bearing capacity analysis, includes as a minimum all material risk types with an impact on the income statement, and is determined by adding these together. Diversification effects between individual types of risk are not taken into account as part of this process. The total risk of the Deka Group is measured as an economic capital amount that is highly likely to be sufficient to cover the losses from all significant risk positions at any time within one year.

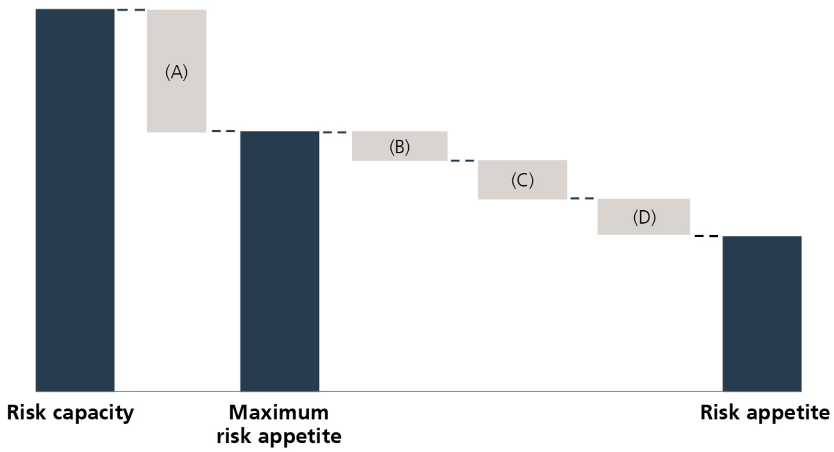
DekaBank uses the value-at-risk approach (VaR) in order to quantify individual risks on a uniform basis and to aggregate them as an indicator for overall risk. The calculation of VaR for a one-year holding period is made for internal management purposes with a confidence level of 99.9%. This level is derived from the business model with reference to an S&P rating at the level of a stand-alone credit profile of "a–".

The total risk of the Deka Group that is derived from the individual types of risk is compared to the Group's risk cover potential available to offset losses. The total available risk cover potential, i.e. the risk capacity, consists mainly of equity capital in accordance with IFRS and earnings components and positions with a hybrid capital nature (subordinated capital), adjusted using amounts to correct for specific capital components, such as intangible assets or risks arising from pension obligations. This risk cover potential is available – in the sense of a formal total risk limit – to safeguard risk-bearing capacity.

In order to reflect extreme market developments and turbulence within the risk-bearing capacity analysis and ensure that risk-bearing capacity is maintained at all times, a capital buffer derived from the risk capacity is explicitly reserved for stress scenarios. This corresponds at a minimum to the level of subordinated capital components, including Additional Tier 1 capital. The maximum risk appetite, which is the result of risk capacity less the capital buffer for stress scenarios, represents the primary control parameter for the allocation of risk capital.

Taking into account other deductions (for example, a buffer for model uncertainties in relation to the risk models used) as well as an allocation reserve, this results in risk capital, which the Board of Management allocates to the business divisions (including the Treasury corporate centre and non-core business) and to risk types (including property fund risk and shareholding risk) in the form of risk appetite.

Risk capacity and risk appetite *(Fig. 19)*



(A) Less maximum of subordinated capital components and buffer for stress scenarios
(B) Less hidden losses and reserves and own credit rating effects
(C) Less buffer for model uncertainties
(D) Less allocation reserve

The utilisation ratios for risk capacity, the maximum risk appetite and the allocated risk capital in the form of risk appetite may not exceed 100%. For the utilisation of the maximum risk appetite, a warning threshold of 90% has been established as part of risk reporting.

As a supplementary risk-bearing capacity assessment procedure, the Deka Group also regularly determines its risk-bearing capacity on the basis of the going concern approach. Here the primary focus is on the extent to which and how often (time horizon) the Deka Group can incur risks without endangering its ongoing existence, while simultaneously complying with the relevant regulatory capital requirements. This means that in principle risks can only be incurred to the extent that capital components are not already committed due to compliance with previously defined secondary conditions. Secondary conditions that are taken into account include both a Common Equity Tier 1 capital ratio of 10.9% as an advance warning threshold and a Common Equity Tier 1 capital ratio of 9.9% as a threshold value. Under the going concern approach, risks are considered based on the assumed continuation of the business and intention to hold investments to maturity and with regard to the time horizon deemed relevant to risk management. DekaBank evaluates risks under the going concern approach with a confidence level of 95.0% and a holding period of one year, which corresponds to a time horizon of once in 20 years. Given changes to the regulatory requirements in relation to concepts of risk-bearing capacity, it is expected that this supplementary procedure will cease to be carried out from 2018 onwards.

The results of the risk-bearing capacity analysis and the utilisation levels for the specified allocations are determined monthly and reported to the Board of Management. The Risk and Credit Committee and the Administrative Board are informed on a quarterly basis.

Stress tests and scenario analyses

Economic risk-bearing capacity is regularly assessed by way of macroeconomic stress tests, which cover all types of risk and enable an estimate to be made of how risk capacity would be affected by extreme market developments. Specific scenario analyses are also carried out for all material risk types. Macroeconomic stress tests and risk type-specific scenario analyses enable action areas to be identified at an early stage as soon as crisis situations emerge.

In the stress tests performed across all risk types, extraordinary but nonetheless plausible scenarios are examined. These cover historical scenarios, such as the crisis on the financial markets, hypothetical stress situations, such as the default of important individual counterparties, and idiosyncratic stress situations. Reputational risks are also systematically included in the stress tests. Furthermore, the Deka Group also performs reverse stress tests, examining specific manifestations of scenarios that would lead to the risk capacity being reached in the specific context of the Deka Group's business model, taking into account the associated risk concentrations. When needed, the scenarios are supplemented with relevant ad hoc analyses.

The effects on risk-bearing capacity of the various all-risk stress scenarios are quantified for one year after the underlying date of the stress test. This includes both the scenario-specific determination of risk capacity and the overall risk position. These key figures are calculated in a two-step process. In step one, relevant risk drivers and risk factors are determined on the basis of macroeconomic and, where applicable, scenario-specific parameters. In step two, the figures are then calculated on this basis. The same risk exposures are used to determine the overall risk position as are used to evaluate current risks.

Calculations for risk type-specific scenarios also indicate the sensitivity of risk exposures in isolation with respect to different relevant risk drivers.

The results of the all-risk and risk type-specific stress tests are determined quarterly, assessed by the Stress Testing Committee and reported to the Board of Management, the Risk and Credit Committee, and the Administrative Board.

The regular annual reviews of the scenarios performed across all risk types were carried out in the third quarter of 2017. In general, it was found that the scenarios examined continue to provide an appropriate reflection of all risks relevant to the Deka Group. An update was made to the economic description of hypothetical and idiosyncratic stress scenarios, and some aspects of the parametrisation were adjusted. In particular, a hypothetical scenario concerning the euro debt crisis was updated in light of current politico-economic developments in the eurozone.

Reporting

Appropriate and high-quality aggregation of risk data and reporting based on this provide the foundations for effectively monitoring and managing risk appetite within the framework of the risk strategy. Key instruments for risk reporting include firstly the monthly reporting on the economic risk situation and on the key regulatory liquidity ratios, and secondly the quarterly risk report in accordance with MaRisk, which provides the Board of Management and the Administrative Board with a comprehensive overview of risk-bearing capacity and the significant types of risk. Furthermore, the Board of Management receives summary reports containing the key points on the current risk situation and on the corresponding utilisation of risk-bearing capacity. Depending on the type of risk, these reports may be provided on a daily basis or at a minimum once a month.

Risk concentrations in relation to individual counterparties (cluster risks) are reported on a monthly basis to the Board of Management and to the key risk committees. In addition, a detailed analysis of all individual counterparties classified as clusters and the associated segment concentrations in comparison to the guidelines set by the credit risk strategy is conducted on a quarterly basis as part of the quarterly risk report. If necessary, adjustments are made to the number and volume of the relevant counterparties.

Further overall reports also include quarterly reporting on macroeconomic stress testing, which examines key indicators material to the risk appetite under alternative scenario conditions. In this respect, stress testing performs a crucial early warning function.

Besides these overall reports, there are also corresponding reports for every type of operational limit that is set. These reports are used to monitor compliance with the respective guidelines on a daily basis. Any breach is immediately brought to the attention of the authorised decision maker – and in the event of material breaches, also the Board of Management.

Overall risk position in the 2017 financial year

During the reporting year, the model employed by the Deka Group for economic risk management continued to reflect the corporate and market situation in an appropriate and timely manner. In an environment of moderate interest rates and low volatility, market developments play only a subordinate role in changes to the risk position. Utilisation of the risk appetite limit remained at non-critical levels throughout the reporting period. The Deka Group also had ample liquidity throughout the year.

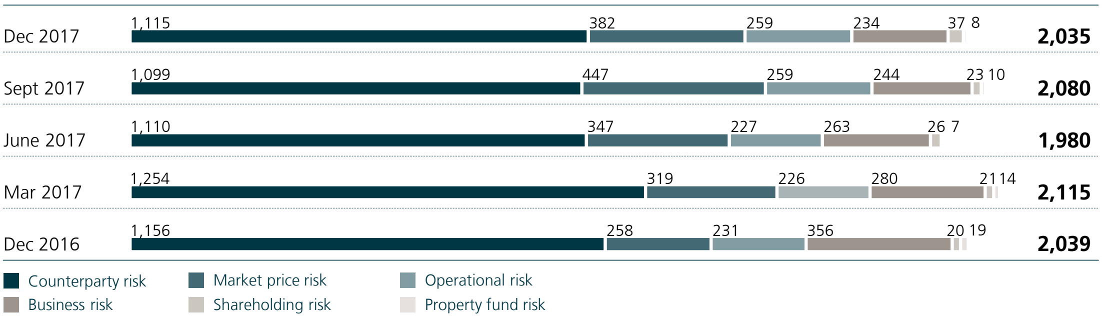
The Deka Group's overall risk exposure (value-at-risk, confidence level 99.9%, holding period of one year) stood at €2,035m as at the 2017 reporting date. This was virtually identical to the previous year's figure (2016: €2,039m), as movements in the different risk types offset one other. Whilst market price risk, operational risk and shareholding risk rose substantially during the year, counterparty risk, business risk and property fund risk were below the previous year's figures, in some cases noticeably so. Utilisation of allocated risk capital was non-critical both at Deka Group level and in all business divisions. Overall risk appetite utilisation stood at just 55.0% at the year-end (2016: 56.0%). The total risk appetite itself was €3,700m, €60m higher than at the end of 2016.

Total risk was virtually unchanged, while risk capacity rose to €5,912m (2016: €5,785m). Positive effects were felt from partial retention of the annual profit for 2016, which bolstered retained earnings, the movement in the revaluation reserve as a result of actuarial gains on pension provisions, and the reduction of deferred tax provisions. This more than compensated the negative effect caused by the increased deduction for risks on pension obligations, which took account of general interest rate risk for the first time. Utilisation of risk capacity was 34.4%, slightly below the level at the end of 2016 (35.2%) and may therefore be regarded, as before, as non-critical.

With an unchanged capital buffer for stress scenarios, the maximum risk appetite, which does not incorporate subordinated capital (including AT1 capital and perpetuals), moderately increased – in parallel with the increase in risk capacity – to €4,412m, relative to the figure of €4,285m at the end of 2016. Utilisation of the maximum risk appetite thus improved slightly to 46.1% as at the 2017 reporting date from 47.6% at year-end 2016.

The stress scenarios that are run on a regular basis across all risk types also confirmed that risk capacity was assured in all scenarios at the end of the year. In the most commonly considered scenarios, risk capacity utilisation was considerably below the early warning threshold of 80%, both during the reporting period and at the reporting date. Exceptions were the two scenarios involving an exacerbation of the euro debt crisis and the collapse of a systemically important bank. A key reason for the substantial risk capacity utilisation is the inclusion in the parametrisation of market shocks that primarily lead to a substantial increase in (counterparty and market price) risk. This effect is exacerbated by modelling adjustments made to the stress scenarios in order to reflect the interest rate risk in respect of market price risks arising on guarantee products.

Change in Deka Group risk over the course of the year *€m (Fig. 20)*



Counterparty risk

Strategic framework and responsibilities

The credit risk strategy stipulates the parameters for all Deka Group transactions that involve counterparty risk. It serves in particular as the foundation for the Group's counterparty risk principles for loans as defined by section 19 (1) of the German Banking Act (KWG) and describes the business divisions and segments that are the focus of lending activities – including the specific risk determinants and minimum standards for new business. Furthermore, the credit risk strategy serves to distinguish between the individual risk segments and governs the handling of intra-risk concentrations and cluster risks. All lending decisions that deviate from the credit risk strategy are classified as significant and must be reported in the credit risk report in accordance with MaRisk.

The credit risk strategy applies to all organisational units of the Deka Group. The strategy is specified by the Board of Management, reviewed at least once a year and discussed with the Administrative Board. Counterparty risks are monitored and managed in accordance with standard principles, regardless of whether the risks stem from trading or non-trading transactions.

In the context of risk-bearing capacity, counterparty risks are limited by allocating risk capital (risk appetite) both overall and at business division level. For individual counterparties, risk is restricted using a limit system based on factors such as creditworthiness, collateral, duration and country and sector considerations. Management and monitoring of risk concentrations (cluster risks) also takes place at individual counterparty level. Depending on the risk segment concerned, strict lending standards are also applied, for instance in connection with structure and adequate risk sharing by the borrower. In addition, a blacklist is used in line with the credit risk strategy to avoid undesirable lending business that could involve reputational risks or an increased level of risk, or which does not meet the high sustainability requirements.

In accordance with MaRisk, there must be a clear functional separation in the lending business between the "front office" and the "back office". The responsibilities performed by the "back office" particularly include monitoring risks at borrower and portfolio level, reporting, reviewing specific items of collateral and making decisions regarding loan-loss provisioning for major exposures. Responsibility for applying rating and risk classification procedures, and for establishing, reviewing and monitoring those procedures is also classified as a back office function, as is the management of non-performing and troubled loans.

Authority levels for lending decisions are based on the net total limit and the gross limit or gross amount. The approval of the Board of Management – and potentially the additional consent of the Credit Committee – may be necessary, depending on the amount and the rating limits.

For the purposes of strategically managing and monitoring counterparty risks and their risk concentrations, a number of sub-committees have been assigned to the MKR. The Rating Committee regularly analyses and assesses the internal rating procedures employed for measuring risk and, where relevant, their inclusion in the pooling system developed in joint projects with Rating Service Unit GmbH (RSU) and S-Rating und Risikosysteme GmbH (SR). The Monitoring Committee is responsible for regularly analysing and discussing matters in connection with the methods and procedures employed for early risk identification as well as for monitoring and managing exposures with increased counterparty risk (non-performing loans and those on the watch list). The duties of the Risk Provisioning Committee include regularly analysing and discussing matters in connection with planning, monitoring and managing loan loss provisions, and also monitoring and managing exposures in serious danger of defaulting (restructuring and liquidation cases) in the lending business as well as in the securities portfolios in the Loans and Receivables and Held to Maturity categories.

Responsibilities for the assessment and monitoring of country risks are consolidated in the Country Risk Committee. The committee discusses country ratings on both a regular and ad hoc basis. It also defines country limits and determines measures to reduce overruns of country limits as well as other risk-reducing measures.

Focus, structure and degree of risk associated with business activities
Counterparty risks are incurred both in the individual business divisions and the Treasury corporate centre.

In the Capital Markets business division, counterparty and issuer risks arise from the currency, securities lending, repurchase and derivative transactions entered into, and from trading in financial instruments in all asset classes. When supporting investment funds and savings banks with the provision and management of liquidity, the division consciously exposes itself to risk concentrations in relation to savings banks, selected capital market participants and central counterparties.

As a result of the business model, the Treasury corporate centre is mainly exposed to concentrations in respect of public authorities and, from a regional perspective, in respect of domestic counterparties.

In the Financing business division, counterparty risk arises from infrastructure, vehicle and export financing, as well as from property finance. The Financing business division also includes business with domestic savings banks as well as financing of the domestic public sector. Due to the limited volume of financing in the division in relation to the Deka Group's total loan volume, there are no risk concentrations in these areas. The business is focused on Germany due to the Group's close involvement in the savings banks association and its transactions with the domestic public sector. There is thus a country concentration as a result of the business model. In addition, the Deka Group's ownership structure and its function in the savings bank association lead to a sector concentration on financial institutions.

In the Asset Management Securities business division, counterparty risks for the Deka Group arise predominantly from contractually binding commitments made in connection with guarantee funds and pension products.

In the Asset Management Services business division, counterparty risk arises primarily from lending business with personal customers conducted by DekaBank Deutsche Girozentrale Luxembourg S.A. and S Broker. Counterparty risk also arises from the two companies' proprietary investments. No risk concentrations exist, as the volume of personal customer business in the Deka Group is small relative to overall lending volumes.

Management and limit-setting
When managing its counterparty risk, the Deka Group makes a distinction between overall analysis at the total portfolio level and operational management, which uses a multi-level system of volume-based limits.

Portfolio model

The starting point for the strategic analysis of counterparty risk is the allocation of capital, which is derived from the calculation of the Deka Group's risk-bearing capacity. It is the foundation for the limitation and monthly monitoring of counterparty risk at total portfolio level and at the level of individual business divisions, including the Treasury corporate centre and the non-core business. The allocation is quantified based on the Deka Group's credit portfolio model, which is used to determine the portfolio's risk of loss in the form of a credit value-at-risk (CVaR) metric for a one-year holding period and at a confidence level of 99.9%, in line with DekaBank's target rating. Risk concentrations are taken into account directly through this model: portfolios that have a strong concentration on individual groups of counterparties, regions or sectors involve a higher economic capital commitment than those that are more diversified. The individual risk ratios are reviewed on a monthly basis to provide a foundation for overall management decisions.

Operating management limits

The Deka Group utilises a system of fixed, complementary volume-based limits for daily operational management purposes. In light of the concentration on specific groups of counterparties, regions and sectors that results from the Group's business model, the limitation of both unsecured volume (net limitation) and the internal framework (gross limitation) plays a central role in this process. The amount of the limits is primarily oriented towards the internal rating of the corresponding counterparties. In order to limit concentration, additional targets have been set for the maximum permitted amount per counterparty (gross limit €3.5bn / net limit €1.6bn). Particularly important counterparties from a business policy perspective (clusters) are also subject to additional reporting above a specific amount. Further minimum requirements for the quality of collateral received apply to repo lending transactions, which are particularly significant. These requirements are contained in the collateral policy. Furthermore, liquidation risks associated with repo lending transactions are further limited by the application of supplementary limits in order to take into account potential fluctuations in the value of the underlying securities.

Loans that involve specific project, sustainability or reputational risks are not entered into. Detailed risk determinants and minimum standards have also been established for the individual financing categories.

The explicit limitation of country risks serves to effectively limit positions in countries with elevated risk. Only the risk position relating to Germany is excluded from this process of limit-setting.

In retail customer lending business, counterparty risks are limited by the provision of collateral.

Quantification of counterparty risk

Gross counterparty risk is mainly determined through market prices and outstanding amounts receivable. The outstanding receivable amount is used for advance performance risk and open items. The adjusted gross position is then calculated by deducting specific insolvency-proof collateral. The overall net position is arrived at by deducting additional collateral and positions that reduce risk, with valuation of collateral following the internal regulations that apply in each case.

In order to achieve consistency between the strategy system, management tools and risk reporting, the concepts of volume used in risk reporting – gross or net loan volume – are closely aligned with the metrics used for limit-setting, namely adjusted gross position and overall net position. Gross and net loan volumes referred to below relate to the adjusted figures.

The assessment of counterparty risks for individual borrowers includes the use of internal rating systems. Borrowers are assigned to an internal rating class with corresponding estimates of the probability of default (PD).

The rating modules currently used are tailored to different classes of receivables, including companies, banks, governments, funds, specialised lending and project financing. These include classic scorecard modules through which creditworthiness is assessed on the basis of current quantitative and qualitative borrower characteristics. Simulation-based modules, in which the probability of default is estimated using simulated macro and micro scenarios for the relevant risk drivers regarding the expected cash flows, are also used. In addition to the modules mentioned above, expert methods are also used for particular types of financing.

When measuring the transfer risk on payment obligations that are denominated in a foreign currency from the borrower's perspective, the borrower rating is influenced by the country rating.

All of the rating modules in use are calibrated to a one-year probability of default. The rating classes are uniformly assigned according to the probability of default based on the master scale of the German Savings Bank and Giro Association (*Deutsche Sparkassen- und Giroverband* – DSGV). This scale serves as a standard reference for a differentiated creditworthiness assessment. The DSGV master scale provides for a total of 21 rating classes for non-defaulting borrowers and three for defaulting borrowers.

Counterparty risks from a portfolio perspective are assessed with the help of an internally developed credit portfolio model. The portfolio model is largely based on a credit metrics approach. In addition to default risks, the risks arising from a change in ratings are also taken into consideration. The probability distribution for changes in the value of the loan portfolio is generated using a Monte Carlo simulation.

A key output of the model is that it determines a CVaR with a holding period of one year and a confidence level of 99.9%. Risk concentrations are taken into account by considering the dependency structure of risk factors. In particular, the modelling approach selected considers dependencies between crisis events. The expected shortfall (ES) is also calculated to supplement the CVaR.

The standard risk costs incorporated into the calculation of the expected return on equity are based on an expected-loss approach and relate to the likelihood of default, the loss rate and the maturity of the transactions. The cost of equity is determined using risk amounts differentiated by individual transaction and corresponding sector and regional allocations. Risk concentrations are included for individual counterparties (clusters), regions and industries by taking into account the cost of equity in the structuring of loan terms.

Management and monitoring of counterparty risks

The Deka Group's counterparty risk, as determined by CVaR, is directly compared with allocated risk capital. In this way, counterparty risks are monitored based on a redistribution of the CVaR to individual transactions and reaggregation to the business divisions.

Counterparty risk positions are managed using a volume-based limitation of the net position and the adjusted gross position. Prior to concluding a credit transaction, a net total limit must be established by the respective authorised decision maker for each borrower and each borrower unit.

In addition – with just a few defined exceptions – a gross limit must be established for each borrower unit. The borrower-related net total limit is divided into sub-limits for position risk, advance performance risk and PFE risk.

As a supplement to its volume-based limits, the Deka Group uses thresholds for risk concentrations in connection with individual counterparties, known as clusters. This entails further precautionary procedures for large exposures and monitoring routines for risk concentrations as appropriate. Thresholds for sectors are not meaningful due to the Deka Group's specific business model, and are thus not taken into account.

The Risk Control corporate centre monitors the limits using a centralised limit-monitoring system at both the borrower-unit level and the borrower level. A comprehensive and market-based early warning system ensures that the individual counterparties subject to limits are monitored so that, in the event of extraordinary developments, countermeasures can be taken at an early stage. At a portfolio level, an analysis of the most significant borrowers and sectors is also carried out, based on CVaR. Maximum country limits are derived from a limit matrix, which is calculated based on a foreign currency (FC) country rating and the gross domestic product. Individual country limits within the limit matrix are approved by the Country Risk Committee. The Risk Control corporate centre monitors compliance with the respective country limits. Overruns are reported immediately to the members of the Country Risk Committee and to the Capital Markets Credit Risk Management unit. This unit acts as the central administrative office for country limits. An analysis of the most significant countries or regions is also carried out from a portfolio perspective, based on CVaR.

The additional investment criteria for securities portfolios in the Treasury corporate centre include stipulations regarding issuers, credit rating and diversification as well as liquidity. Compliance with these rules is monitored daily by Risk Management, which is independent of trading operations. Any breaches are reported immediately. In addition, reporting takes place monthly to the MKR and MKAP. This includes an analysis of the holdings in the liquidity reserve portfolios and the portfolio structure.

The Deka Group has issued extensive processing and valuation guidelines for collateral obtained in lending and trading transactions. The procedures for verifying valuation of collateral received in the course of lending business, including guarantees, sureties, charges on commercial and residential property, registered liens and the assignment of receivables, are applied on an annual basis. Valuation of collateral and of any discounts applied to it is primarily based on the creditworthiness of the party providing the guarantee, or in the case of asset collateral, on the market value, fair value or lending value of the financed property.

Management and monitoring activities also focus on financial collateral provided in the form of securities and obtained as part of repo lending transactions. These comprise by far the largest share of the collateral portfolio as compared to the lending business.

The Group's collateral policy defines the minimum requirements for counterparties and for securities borrowed by counterparties, or the securities received from counterparties as collateral in repo lending transactions. In addition, risk concentrations are restricted for each counterparty using concentration limits for equities and bonds, and rating-dependent volume restrictions.

The Capital Markets business division is responsible for compliance with the requirements of the collateral policy. It is supported operationally in this regard by the Capital Markets Collateral Management unit. A review independent of trading is performed daily by the Risk Management unit. In addition, an analysis of collateral is reported to the MKAP on a monthly basis.

Performance of stress tests

In addition to the macroeconomic stress tests performed across all risk types, additional sensitivity tests are conducted specifically for counterparty risk. Examples of scenarios include a rating downgrade for public authorities, federal state banks and savings banks, as well as an increase in loss ratios or the failure to take account of certain collateral types. The results of the stress tests are determined quarterly and reported to the Stress Testing Committee, the Board of Management, the Risk and Credit Committee and the Administrative Board. They therefore enable the Group to identify areas for action as early as possible if crisis situations start to unfold.

Default monitoring

The Monitoring Committee is operationally responsible for monitoring and managing non-performing loans and those on the watch list. This includes specifying early warning indicators and criteria to allocate exposures to different monitoring levels.

Operational responsibility for monitoring and managing restructuring and liquidation cases lies with the Risk Provisioning Committee. The latter is also responsible for regularly analysing and discussing matters in connection with planning, monitoring and managing loan loss provisions.

When establishing loan-loss provisions, loan receivables are reviewed individually to determine whether there is objective evidence of impairment. If the Bank identifies an impairment, it recognises a specific provision in the corresponding amount. For receivables against which no specific provision is made, default risk and transfer risk are taken into account by recognising general provisions at the portfolio level. Portfolio-level general provisions for creditworthiness risks relate to impairments in the credit portfolio that had already occurred at the reporting date but which had not yet been identified. General portfolio provisions for country risks must be recognised where the internal rating on the DSGV master scale is 10 or worse (for further information on the creation of general portfolio provisions for country risks, see the notes to the consolidated financial statements). Departures from this rule must be justified on a case-by-case basis. A specific provision may still be created for countries with better ratings if called for by the particular circumstances. Provisions are created to take account of creditworthiness risks in off-balance sheet lending business.

Current risk situation

The counterparty risk determined on the basis of the credit value at risk (CVaR) with a confidence level of 99.9% and a holding period of one year, declined moderately in 2017 to €1,115m (2016: €1,156m). Risk capital allocated to counterparty risks was €2,015m (2016: €1,950m). Utilisation of this amount was 55.3% (previous year: 59.3%). The decline in the CVaR is due predominantly to lower migration risks and to the reduction of bond exposures in the Treasury corporate centre. Individual rating improvements for capital market counterparties also helped reduce risk, as did non-scheduled repayments, recoveries and the associated release of loan loss provisions in ship financing. Against this, risk in the Financing business division rose in the second half of the year, primarily as a result of new infrastructure and project loans. The modelling adjustments described above also had the effect of increasing risk.

The risk position of the cluster portfolio is assessed using a redistribution based on expected shortfall. This also resulted in a decline compared to the previous year, as both the number of borrower units classed within counterparty clusters and the associated gross loan volume again fell. This was principally the effect of reduced bond exposures in the Treasury corporate centre. Risk concentrations in the ten largest counterparty clusters rose slightly in numerical terms, but fell slightly as a proportion of the overall portfolio. Risk concentration thus remained in line with the Deka Group's credit risk strategy.

Gross loan volume increased by €12.5bn compared with the end of 2016 (€124.3bn), reaching €136.8bn. The rise predominantly concerned the financial institutions risk segment and was mainly attributable to higher deposits at the Deutsche Bundesbank and an increase in the volume of repo lending (particularly with central counterparties such as Eurex and LCH.Clearnet). At 31 December 2017, 53.0% of gross loan volume related to the financial institutions risk segment. The rise in gross loan volume in the property risk segment resulted from new secured property lending in Europe and North America and from transactions with open-ended property funds. Gross loan volume in the funds risk segment also rose, due to a larger portfolio of fund units. By contrast, lower demand for liquidity among savings banks led to a substantial drop in gross loan volume in the relevant risk segment. In the Public Sector International risk segment, the reduction of the bond portfolio also had a compensating effect, as did the reduction in municipal lending and time deposits in the Public Sector Germany segment. The ship portfolio's share of gross loan volume decreased to 0.9% (2016: 1.3%), due to non-scheduled repayments and sales among other factors. The market environment remains difficult, and the ship financing portfolio is therefore being closely followed and monitored on an ongoing basis.

Gross loan volume *€m (Fig. 21)*

	31 Dec 2017	31 Dec 2016
Financial institutions	72,527	57,629
Savings banks	7,177	10,511
Corporates	12,260	11,836
Public sector International	2,710	3,701
Public sector Germany	11,255	12,364
Transport & export finance	5,193	5,295
Property risks	8,771	7,371
Funds (transactions and units)	14,502	13,567
Other	2,420	2,062
Total	**136,817**	**124,336**

Net loan volume rose by €5.0bn to €54.9bn as at 31 December 2017, thus exhibiting a substantially smaller rise in absolute terms than gross volume. This was because the expansion of business volume led to an increase in deductions for secured lending when converting from gross to net loan volume. These were mainly due to the offsetting of reverse repo transactions, especially as a result of the increased volume of reverse repos in the financial institutions risk segment. The rise in the financial institutions risk segment, which was also visible in net loan volume, was thus due primarily to higher deposits with the Deutsche Bundesbank. The volume of lending to savings banks and the German public sector had a compensatory effect in net terms as well as in gross terms.

Loan volume in non-core business declined to a gross and net figure of €0.6bn (2016: €0.8bn), partly due to sales of bonds from the former public finance portfolio and of securitisations. This represents just 6% of the original volume of approximately €9.5bn in 2009. The remaining portfolios chiefly comprise structured securities from the former liquid credit portfolio and non-German public-sector bonds from the former public finance portfolio. The remaining portfolios were fully integrated into the Capital Markets business division as from the start of 2018.

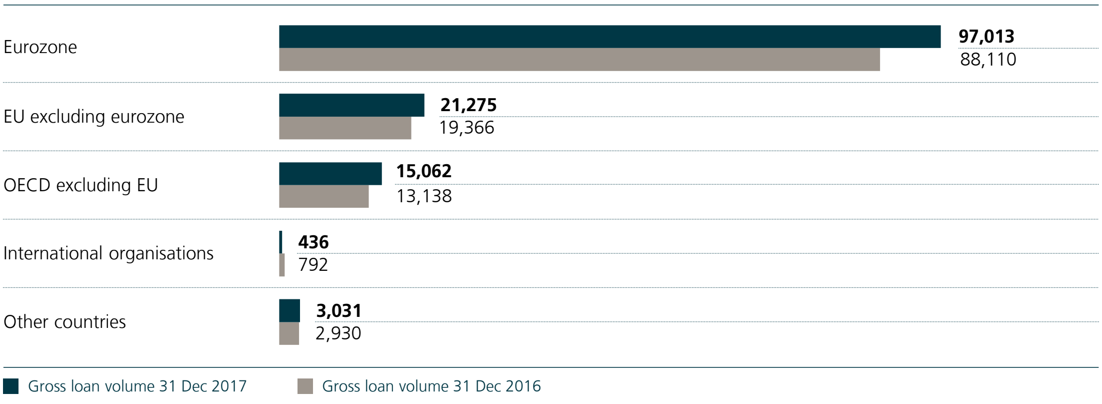
Net loan volume *€m (Fig. 22)*

	31 Dec 2017	31 Dec 2016
Financial institutions	24,637	16,270
Savings banks	6,722	9,894
Corporates	6,396	6,354
Public sector International	1,771	1,887
Public sector Germany	2,331	3,646
Transport & export finance	670	938
Property risks	1,695	1,277
Funds (transactions and units)	8,306	7,630
Other	2,400	2,036
Total	**54,928**	**49,931**

Due to the higher volume of repo lending and reverse repo activities with German, Belgian and Luxembourg counterparties as well as the increase in central bank deposits, the loan portfolio remains heavily concentrated on the eurozone, which accounted for 70.9% of the total (2016: 70.9%). This is in line with the business model. The gross loan volume in relation to Germany increased by €6.4bn to €60.9bn.

In EU countries outside the eurozone, gross loan volume was higher than at the end of 2016, primarily as a result of an increased volume of repo lending with British counterparties. In non-EU OECD countries, gross loan volume rose over the year, primarily as a result of bonds and secured property lending with US counterparties and a greater volume of securities lending transactions with counterparties in Switzerland.

Gross loan volume by region *€m (Fig. 23)*



The gross loan volume relating to borrowers in Italy, Spain and Ireland increased to €5.7bn, from €4.0bn at the end of 2016. This meant that 4.2% (2016: 3.3%) of overall gross loan volume concerned counterparties in those countries. The rise resulted predominantly from secured repo transactions with Spanish counterparties and increased holdings in Irish-based funds. The gross loan volume attributable to counterparties in Russia fell by €130m during the year to €217m. Around 91% of this total is secured by ECA guarantees issued by the Federal Republic of Germany.

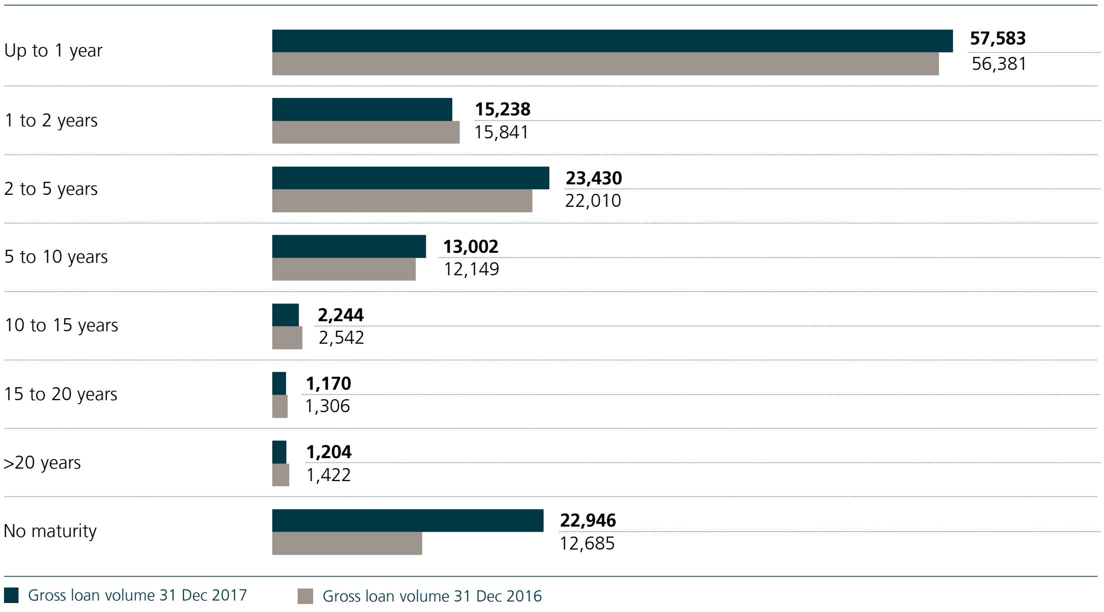
Exposures in the United Kingdom have been closely watched since the Brexit process was triggered. Gross loan volume relating to borrowers in the UK increased to €19.9bn, from €17.6bn at the end of 2016. The rise is due to repo lending transactions with counterparties in the British capital markets. For risk reasons, the single-counterparty limit for the UK government was reduced mid-year from €2.5bn to €2.2bn.

Gross loan volume by risk segment for selected countries as at 31 December 2017 *€m (Fig. 24)*

	Ireland	Spain	Italy	Great Britain	Russian Federation
Financial institutions	1	2,168	404	15,789	0
Corporates	16	409	110	1,715	0
Public sector International	41	276	241	84	0
Transport & export finance	408	14	217	143	217
Energy and utility infrastructure	0	55	0	0	0
Property risks	307	2	302	2,111	0
Funds (transactions and units)	668	0	0	60	0
Other	0	43	40	25	0
Comprehensive income	**1,441**	**2,966**	**1,314**	**19,927**	**217**
Change vs. previous year					
Financial institutions	1	790	–146	2,243	0
Corporates	15	25	14	103	0
Public sector International	21	–52	–12	–425	0
Transport & export finance	40	–5	117	42	–108
Energy and utility infrastructure	0	–3	0	0	–23
Property risks	176	2	50	368	0
Funds (transactions and units)	663	–2	0	35	0
Other	0	–1	–17	2	0
Comprehensive income	**916**	**754**	**6**	**2,367**	**–130**

As previously, gross loan volume was focused on the short-term segment. In 2017, the proportion of transactions with a residual maturity of less than one year fell moderately from 45.3% to 42.1%. The share of maturities of ten years or more was 3.4%, lower than at the end of 2016 (4.2%). The average legal residual term of the gross loan volume fell slightly, amounting to 2.7 years (2016: 2.8 years).

Gross loan volume by maturity *€m (Fig. 25)*



The level of risk concentration in the loan portfolio declined slightly during the year. At 31 December 2017, 18.4% of total gross loan volume (2016: 19.6%) was attributable to borrower units with a gross limit of at least €2.5bn or an overall net limit of at least €1.0bn (counterparty clusters). The number of counterparties classed as counterparty clusters also fell slightly. Of the cluster portfolio, 24.4% related to counterparties in the German public sector, savings banks and other alliance partners. Only 9.4% of net loan volume related to counterparty clusters (2016: 12.6%). This primarily reflects the higher proportion of collateralised transactions in counterparty clusters.

Furthermore, the shadow banking portfolio has been restricted since the start of 2017, in line with EBA rules. Shadow banking entities include, among others, money market funds, credit funds and inadequately regulated credit institutions. DekaBank distinguishes between shadow banking entities under the principal approach and those under the fallback approach. Therefore, while an overall limit is imposed on shadow banking entities, limits are also imposed depending on the approach used. The existing limits at the level of individual counterparties remain unaffected. As at 31 December 2017, less than 3% of net loan volume related to shadow banking entities under the principal approach (limit utilisation 91%) and less than 1% to shadow banking entities under the fallback approach (limit utilisation 79%). The utilisation figures are considered acceptable, especially given that the shadow banking entities have an average rating of A on the DSGV master scale.

The average ratings for gross loan volume and net loan volume both improved to a rating of 2 on the DSGV master scale, a rise of one notch relative to the end of 2016. The average probability of default was 12 bps for gross loan volume (2016: 16 bps) and 11 bps for net loan volume (2016: 17 bps). The Bank therefore continued to achieve its target rating of investment grade (5 or better) for the portfolio as a whole. The increase in volumes with well-rated counterparties such as the Deutsche Bundesbank and Eurex also had a positive effect on the average rating, as did rating improvements at central counterparties and some major international banks. In addition, the average probability of default also fell due to the reduction of volumes with capital market counterparties with medium credit ratings. 82.8% of net loan volume remained in the same grouping (determined by rating class) as at the end of 2016.

Net loan volume by risk segment and rating *€m (Fig. 26)*

	Average PD in bps	Average rating 31 Dec 2017	31 Dec 2017	Average PD in bps	Average rating 31 Dec 2016	31 Dec 2016
Financial institutions	7	A	24,637	20	3	16,270
Savings banks	1	AAA	6,722	1	AAA	9,894
Corporates	12	2	6,396	14	2	6,354
Public sector International	5	A+	1,771	5	A+	1,887
Public sector Germany	1	AAA	2,331	1	AAA	3,646
Public infrastructure	19	3	675	39	5	568
Transport & export finance	193	9	670	284	10	938
Energy and utility infrastructure	59	6	1,606	71	6	1,327
Property risks	10	A-	1,695	18	3	1,277
Retail portfolio	3	AA	119	5	A+	141
Funds (transactions and units)	14	2	8,306	14	2	7,630
Comprehensive income	**11**	**2**	**54,928**	**17**	**3**	**49,931**

Market price risk

Strategic framework and responsibilities

The Deka Group's market price risk strategy, based on the Group's overall risk strategy, stipulates parameters for risk management in all organisational units regarding all positions in the trading and banking book that are exposed to market price risk. It sets objectives, priorities and responsibilities for market price risk management and, together with the liquidity risk strategy, governs the business focus of trading activities (trading strategy).

Within the risk management organisation, the Board of Management decides the market price risk limits for the Group as a whole, as well as at the level of the business divisions, including the Treasury corporate centre and non-core business. The relevant department heads are responsible, in consultation with the head of Risk Control, for reallocating existing limits below the level of the Capital Markets business division and Treasury where appropriate. The allocation of limits reflects both organisational structure and the distinction between the trading and the banking book.

The MKR and MKAP make recommendations with respect to the definition of the framework for the management of strategic market-price risk positions to the Board of Management, which then adopts resolutions accordingly. In its capacity as a sub-committee, Risk Talk supports the MKR and the Board of Management in relation to the Capital Markets business division's operational processes for managing and monitoring market price risk. To do so, it conducts in-depth analysis on a range of issues relating to market and counterparty risks and makes recommendations and binding decisions on matters that influence the Capital Markets business division's risk profile. These committees make an important contribution to communication between the departments responsible for the control and monitoring of market price risks.

Execution of transactions and recording exposures are the responsibility of the operating units. In terms of market price risks, they are solely responsible for the implementation of strategic guidelines and operational management within the prescribed risk limits.

Market price risks also need to be considered in the Capital Markets business division, the Treasury corporate centre and the Asset Management Services business division (S Broker). Market price risks in the other operating units in the Financing business division are passed on to the Treasury corporate centre.

The Deka Group's investment management companies are generally not subject to any market price risks beyond those associated with the investment funds. However, market price risks can arise for the Deka Group if products are provided with a guarantee. Market price risks from guarantee products are incorporated into the analysis of risk-bearing capacity and attributed to the Asset Management Securities business division.

Focus, structure and degree of risk associated with business activities
With respect to market price risk, the Deka Group's business model focuses primarily on conducting business in interest and equities-related products. For this purpose, the Group mainly uses established products and markets with adequate market liquidity and market depth due to their international acceptance. No business is conducted involving physical delivery of precious metals and goods. Open risk positions are entered into only within the allocated market price risk limits.

In its function as a securities and collateral platform, the Capital Markets business division enters into open positions, in the context of customer business, in a predefined amount exclusively in particularly liquid securities with high credit ratings. Proprietary trading not directly linked to customers takes place only for the purposes of managing risks from the customer business or for overall risk management purposes. The primary risks that result from these activities are credit spread risks, as well as interest rate, equity, option and currency risks. Whenever economically justified, risks are covered using hedging instruments. The rules for recognising hedging relationships in the balance sheet do not always correspond with the methods used for internal bank management purposes. It is therefore possible that differences may arise between the economic and accounting hedging relationships.

In repo and securities lending business there is a direct link with DekaBank's securities portfolios. Customer transactions have a significant influence on the Bank's liquidity base, which is managed centrally by Treasury. Collateralised financing is also conducted as part of customer business. Due to its business model, DekaBank has a surplus supply of securities and collateral that can be invested in customer business to minimise risk. Traditional repo and reverse repo transactions as well as synthetic financing/lending substitute transactions are carried out to this end.

In bond trading, positions are established in the bonds of public issuers, financial service providers and corporations, among others. The focus here is on market-making for customers. Therefore, long-term positions are generally not entered into.

Positions are established for structuring purposes in both securities and derivatives – especially options – in equities and interest rates. The resulting interest-rate-option and equity-option risks as well as the general position risks are hedged using derivatives. When economically justified, the equity and interest rate risks arising from primary and secondary market positions for structured products are hedged.

Strategic investments predominantly comprise positions for which the refinancing volume has resulted from DekaBank's customer-driven business and is not needed for lending operations. The key risks in this regard are interest rate and credit spread risks.

Management of the liquidity reserve is centralised in the Treasury corporate centre. The investment focus of liquidity investments is currently on bonds issued by German federal states, German development banks, German run-off institutions, German Pfandbriefe, supranational institutions and investment-grade corporate bonds. These investments primarily give rise to credit spread risks, which are closely monitored and reduced, when needed, through disposals or via credit derivatives. Monitoring fund products provided with guarantees and managing market risk in the banking book involves further market price risks. In the latter case, risk management relates primarily to interest rate, basis and currency risks, with exchange-traded derivatives sometimes also being used.

Interest rate and currency risks that result from liquidity management in Treasury are managed using derivative instruments, whereas the market price risks arising from refinancing and equity-capital management are hedged using internal transactions where possible as well as using external and internal derivatives.

Management and limit-setting

Market price risk is monitored on a daily basis. The basis for this monitoring is a system of operational limits that is consistent with the Group's overall risk-bearing capacity. This system defines limits in line with the business model for the various portfolio levels and risk categories. In addition, limits are set based on operating metrics such as sensitivities. Risk Control reports key market price risk ratios and limit utilisation to the units responsible for management on a daily basis. Clear escalation processes are defined in case of any limit breaches. Key risk ratios at business division level are also provided daily to the Board of Management. Stop-loss limits are another management tool that the Group has established to limit losses. In the event that a stop-loss is exceeded, the MKR will immediately take steps towards mitigation.

Value-at-Risk (VaR)

VaR is calculated with a confidence level of 99.9% and a holding period of one year when analysing risk-bearing capacity; when determining the utilisation of operating limits DekaBank calculates VaR for a holding period of ten days and a confidence level of 99.0%.

The operating VaR therefore corresponds to the maximum loss on a position held over a period of ten trading days, with a probability of 99.0%.

VaR key ratios are determined on a daily basis for all relevant risk categories and portfolios and are compared with the associated portfolio-specific limits.

To determine VaR, a sensitivity-based Monte Carlo simulation is used across all portfolios. This simulation ensures that all market price risks are identified in an integrated manner. The foundation for the calculation is volatilities and correlations that have been determined based on historical changes in market parameters. Market correlations within the risk categories of interest rates and credit spreads, and currencies and equities are taken into account, as are the correlations between the risk categories.

Sensitivity-based management metrics

The input parameters for this risk model are the sensitivity metrics delta, gamma and vega. These first and second ranking sensitivities express the price sensitivity of financial instruments to changes in underlying risk factors and are used to determine overall risk. They are also available as additional management metrics for risk assessment purposes.

Sensitivity analyses are defined as simple shifts in the different risk factors for interest rate, credit spread, share price and exchange rate movements. The sensitivity analyses are used to support the operational management of the risks from trading and treasury positions.

To calculate share price risk, each share is included as an individual risk factor and considered accordingly when determining risk. The specific interest rate risks (credit spread risks) are calculated on an integrated basis using the sensitivities of the underlying segment-specific or name-specific credit spread curves. There are also residual risks relating to individual issues.

The model ensures that all risk factors associated with the trading strategy are identified, including non-linear risks and credit spread risks. Daily risk measurement is performed for all types of market price risk, both in the trading book and the banking book. This guarantees a comprehensive view of all market price risks, while adequately taking into account concentration and diversification effects by including correlations across all portfolios and risk types.

Market price risks that result from granting guarantees are measured using an approach specifically developed for this purpose and geared towards risk-bearing capacity, which does not take into account diversification effects with regard to other market price risks.

Scenario considerations and stress analyses
The limit system is supplemented with regular market price risk-specific stress tests. Using these tests, the sensitivity of the portfolio is constantly tested with regard to a wide variety of trends in the various risk factors. Once again, the focus is on risks that are particularly relevant, using separate, portfolio-specific analyses. In addition, the value-at-risk metric is complemented by stressed value-at-risk, which evaluates the risk potential in a period of financial stress.

Market price risks are also an important component in the analysis of significant macroeconomic scenarios. The effects of this analysis, which covers all risk types, are investigated on a quarterly basis and serve as an early warning mechanism for the Bank regarding its risk-bearing capacity.

The main components of the portfolio are also addressed as part of this analysis by performing a detailed review of credit spread trends, particularly in the financial sector and among domestic public issuers.

Backtesting of VaR risk ratios and validation
Various steps are taken to test the quality of the VaR forecast, including regular backtesting for various portfolio levels. In this process, the daily results that are theoretically achieved assuming unchanged positions on the basis of the market developments observed on the following day are compared with the forecast value-at-risk figures for the previous day. In addition, dirty backtesting regarding the actual change in value is also carried out, taking trading activities into account. The backtesting findings are also used to enhance the risk model. The results are reported on a quarterly basis. Overall, the backtesting results confirm the suitability of the market price risk measurement at both the bank level and at the level of subordinate organisational units. In addition, the approximation error of the delta-gamma approximation is reviewed on a monthly basis by carrying out a full valuation of the portfolio.

Risk models are validated on both a regular and ad hoc basis, and the results play an important role in assessing whether the models are adequate. Accordingly, any requirements for further development that arise from the validation procedure are then integrated into the process for identifying and quantifying risks. Overall, the validation exercises carried out confirm that the market risk model is appropriate.

Current risk situation
Market price risk at Deka Group level (measured using value-at-risk with a confidence level of 99.9% and a holding period of one year) increased significantly compared with the position as at the end of 2016 (€258m) to €382m. Risk capital allocated to market price risk stood at €865m (2016: €750m). Utilisation was 44.1% and should therefore be regarded as moderate, as in the previous year.

The rise in VaR is essentially due to an increase in exposure in the Strategic Investments unit of the Capital Markets business division. Although the expansion of the bond portfolio was made in the investment-grade segment, there is nevertheless an associated rise in spread risk. The inclusion of the general interest rate risk for guarantee products in the Asset Management Securities business division also caused the risk level to rise. The increase in risk was mitigated by the steepening yield curve and higher fund prices in securities-related asset management, along with a market-driven fall in risk for guarantee products. The degree of market risk posed by the other divisions and by Treasury moved only slightly relative to the previous year-end.

At the end of 2017, market price risk for the Deka Group excluding guarantee risks (measured by value-at-risk with a confidence level of 99.0% and a holding period of ten days) totalled €43.8m (2016: €29.5m). Utilisation of the operating management limit for Treasury and capital markets business, which fell by €5m to €62m, increased to 69.3% (2016: 42.3%) and therefore remained at a non-critical level.

Deka Group value-at-risk excluding guarantee risks [1] (confidence level 99%, holding period ten days)
€m (Fig. 27)

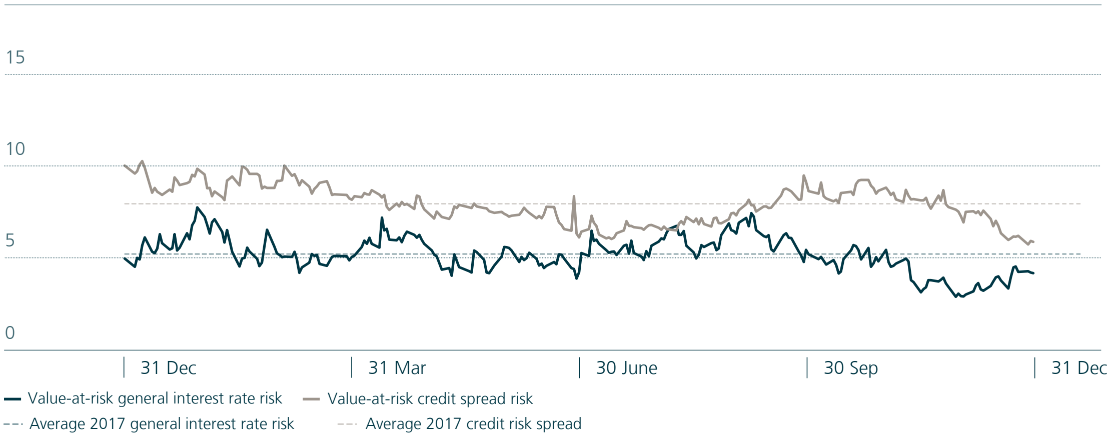
	31 Dec 2017				31 Dec 2016				
Category	**Treasury and Capital Markets business division**	**Asset Management Services business division**	**Non-core business**	**Deka Group excluding guarantees**	**Treasury and Capital Markets business division**	**Asset Management Services business division**	**Non-core business**	**Deka Group excluding guarantees**	Change in risk
Interest rate risk	39.1	2.6	4.0	40.0	28.1	2.3	5.1	29.2	37.0%
Interest rate – general	7.8	2.6	1.3	8.7	13.7	2.6	1.5	14.8	–41.2%
Spread	38.1	1.6	3.7	39.7	29.1	1.2	4.7	30.7	29.3%
Share price risk	3.7	0.3	0.0	3.5	3.3	2.1	0.0	3.2	9.4%
Currency risk	8.8	0.2	0.5	8.4	4.2	0.1	1.1	3.7	127.0%
Total risk	**43.0**	**2.5**	**3.9**	**43.8**	**28.4**	**3.4**	**5.1**	**29.5**	48.5%

1) Risk ratios for interest rate risk and total risk taking account of diversification. Includes issue-specific credit risk spread.

In the period under review, the VaR of spread risk increased to €39.7m (2016: €30.7m). The predominant reason was the increase in exposures in the Strategic Investments unit in the capital markets business. In line with the business model, risk concentration in terms of spread risk thus fell mainly on bonds from German and US issuers and on the public sector, financial institutions and corporates segments. Spread exposures existed mainly in the Strategic Investments unit in Capital Markets and in liquidity reserve management within the Treasury corporate centre.

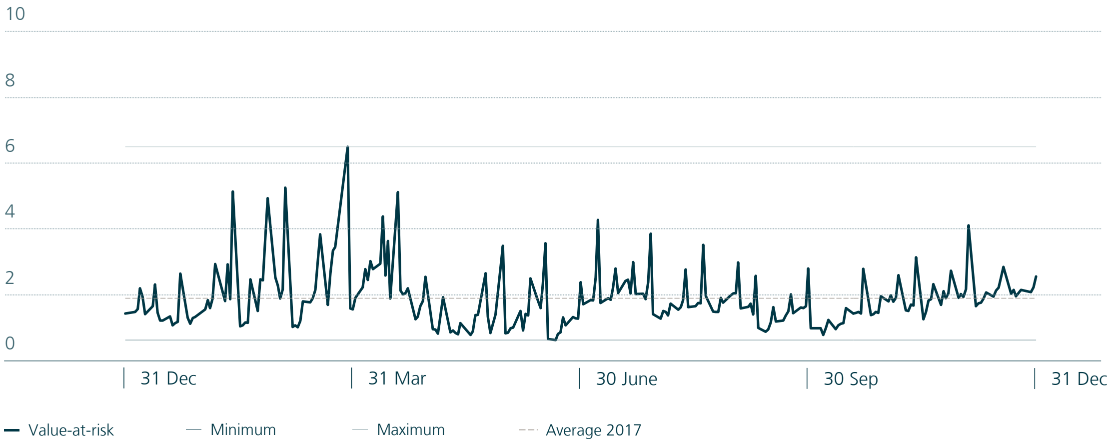
The VaR for general interest rate risk (excluding risks on guarantee products) decreased from €14.8m at year-end 2016 to €8.7m. This drop mainly resulted from a change in positioning as regards the maturity profile.

Value-at-risk – General interest rate risk and credit spread risk in the Capital Markets trading book over the course of 2017 *€m (Fig. 28)*



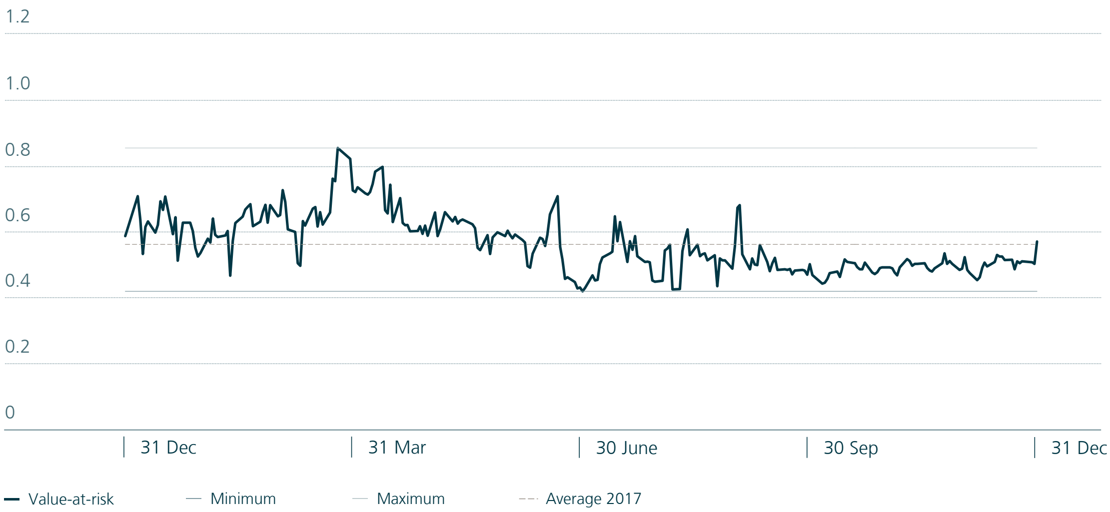
Share price risk rose compared with the year-end figure for 2016 (€3.2m) to €3.5m. It thus remained insignificant. Share price risk in the Capital Markets business division trading book totalled €2.6m (2016: €1.5m).

Value-at-risk – Share price risk in the Capital Markets trading book over the course of 2017 *€m (Fig. 29)*



As in the previous year, currency risk resulted mostly from positions in British pounds and US dollars. It increased to a VaR of €8.4m (2016: €3.7m). The rise was attributable to new foreign-currency lending in British pounds and US dollars. Currency risk in the Capital Markets business division trading book remained unchanged at €0.6m (2016: €0.6m).

Value-at-risk – Currency risk in the Capital Markets trading book over the course of 2017 *€m (Fig. 30)*



Liquidity risk

Strategic framework and responsibilities

Liquidity risk is managed and monitored as an independent risk category within the framework of the Deka Group's risk strategy. The liquidity risk strategy applies to all organisational units of the Deka Group. The strategy is specified by the Board of Management, reviewed at least once a year and discussed with the Administrative Board.

As liquidity risk is not an immediate risk to the Group's profit that can be cushioned with equity capital, it is managed outside the risk-bearing capacity analysis. The central objective of liquidity management is to prevent liquidity shortfalls and thus ensure that the overall solvency of the Deka Group is guaranteed on a continuous basis. Risks impacting the income statement arising from refinancing gaps (liquidity maturity transformation risk) are currently not material because the limits placed on liquidity balances in the funding matrix (FM) prohibit negative balances. In view of the ample levels of liquidity available to the Group overall, market liquidity risk is also not regarded as significant at present.

Within the risk management organisation, the Board of Management defines the Group's liquidity risk strategy, liquidity risk limits and early warning thresholds at Group level.

The Board of Management is supported by the MKR and MKAP when fulfilling its management responsibilities regarding liquidity risk monitoring. The two committees prepare decisions and make recommendations that are presented to the Board of Management for adoption at the next Board meeting. The Liquidity Emergency Crisis Committee is convened in the event of a liquidity emergency. It may decide all measures judged necessary to ensure the short-term solvency of the Group and may instruct all units of the Deka Group to implement these measures. The Board of Management, as a permanent member with a voting right, is the core of this crisis committee.

Liquidity positions are managed centrally by the Treasury unit. Asset-liability management involves managing and monitoring structural liquidity through funding matrices and managing the use of liquidity transfer pricing (transfer pricing for funds). At the same time, the Treasury unit ensures that an adequate liquidity reserve of central-bank-eligible collateral is available. In addition, it is in charge of managing the Deka Group's liquidity reserve as well as controlling the level of liquidity ratios. Operational liquidity management across all maturities is handled centrally by the Treasury corporate centre. This includes money market transactions on the interbank market with savings banks, the Bundesbank or the ECB, businesses, insurance companies and funds.

The liquidity position is analysed across the entire Group by the Risk Control corporate centre and monitored independently from the front office units in organisational and procedural terms.

Management and limit-setting

Funding matrices

The purpose of the funding matrix is to show expected future cash flows across the portfolio as at the reporting date. The liquidity requirement (liquidity gap) or liquidity surplus is determined for each maturity based on these flows. In addition, freely available financial resources, such as realisable assets in the form of securities, over-coverage in cover registers and other sources of funding, are identified as potential liquidity on an aggregated basis. The liquidity balance for each maturity band is determined from the sum of the cumulative liquidity gap and the cumulative liquidity potential. The balance is managed using a traffic light system comprised of early warning thresholds and limits. The liquidity balance must be positive in all monitored maturities.

The basis for the model is cash flows as indicated by legal maturities. This approach is based on the sum of all legal net cash flows per maturity band. Reconciliation between the amount from a legal perspective and expected cash flows is performed using modelling assumptions. Securities used for liquidity potential are allocated either to the liquidity buffer or to operational securities portfolios.

The liquidity buffer is used to cover possible stress-induced liquidity outflows from the banking book as well as stochastic liquidity outflows that cannot be influenced by the Deka Group or can only be influenced to a limited extent (stochastic liquidity position). As a component of the liquidity reserve, the liquidity buffer falls under the remit of the Treasury corporate centre. The minimum level required and currency composition of the liquidity buffer are determined by Risk Control on a quarterly basis. Treasury can independently propose a higher liquidity buffer above this level. The results are reported to the MKR. The Board of Management sets the level of the liquidity buffer based on the MKR's recommendation.

The operational securities portfolios comprise all freely available securities. These can be divided into securities that fall within the remit of the Capital Markets business division and portfolios that are allocated to the Treasury corporate centre as part of the liquidity reserve and which do not form part of the liquidity buffer.

As well as being used for normal business operations (going concern), funding matrices are also analysed under different stress scenarios. This ensures that even under stressed market conditions, an adequate liquidity reserve is maintained to cover any potential liquidity need.

The Deka Group primarily examines the "combined stress scenario" FM, which simulates the simultaneous occurrence of both the institution's own and market-wide stress factors. This FM fully implements MaRisk requirements. In addition, individual stress scenarios are examined separately in special FMs for which different modelling assumptions are used. Among other factors, market liquidity risks arising from a reduction in the market value of the securities in the liquidity potential are taken into account in the stress scenarios.

Liquidity ratios under the Capital Requirements Directive (CRR/CRD IV) and German Liquidity Regulation

Liquidity risk is also kept under control by means of the Liquidity Coverage Ratio (LCR), which is a prescribed regulatory ratio. The LCR indicates the ratio of highly liquidity assets to net liquidity flows under stressed conditions.

The use of a funds transfer pricing system for the source-specific allocation of liquidity and collateral costs also allows liquidity to be proactively managed and efficiently allocated.

As the Deka Group is a CRR credit institution, full introduction of the LCR means that the German Liquidity Regulation ceased to apply to the Group as of 1 January 2018. The liquidity ratio prescribed under the Regulation (pursuant to section 11 of the German Banking Act) was therefore determined for the final time as at 31 December 2017.

Reporting

The aforementioned FMs used for management and risk monitoring purposes are prepared daily by Risk Control as part of its independent monitoring process. The corresponding early warning thresholds and limits for the liquidity balance are also monitored. The liquidity situation is reported to the MKR on a monthly basis. The Administrative Board is informed on a quarterly basis. Any overruns of the limits are reported immediately to the Board of Management. Moreover, the liquidity ratios according to the Liquidity Regulation and the LCR are prepared daily in the reporting system of the Finance corporate centre and provided to monitoring units.

Current risk situation

The Deka Group continued to have ample liquidity throughout the reporting period. There were clear positive liquidity balances in all relevant maturity bands of the "combined stress scenario" funding matrix for periods of up to 20 years. This was also the case for the alternative stress scenarios. Limits and early warning thresholds were complied with throughout the reporting period. Adjusting the modelling of deposits to move from relative prolongation rates to absolute floors led to a reduction in liquidity balances in maturity bands of two weeks and upwards.

As at 31 December 2017, the accumulated liquidity balance of the Deka Group's "combined stress scenario" funding matrix in the short-term range (up to one week) stood at €6.4bn (2016: €4.6bn). In the maturity band of up to one month, the liquidity surplus totalled €7.0bn (2016: €11.2bn), and in the medium-term range (three months) it was €12.6bn (2016: €18.2bn).

As in previous years, a substantial part of the Group's liquidity generation and provision was attributable to business with savings banks and funds. The Deka Group has a high liquidity potential that is readily convertible at short notice. The Group has access to a large portfolio of liquid securities, most of which are eligible as collateral for central bank borrowings, as well as to available surplus cover in the cover pool and corresponding repo transactions.

"Combined stress scenario" funding matrix of Deka Group as at 31 December 2017 *€m (Fig. 31)*

	D1	>D1-1M	>1M–12M	>12M–5Y	>5Y–20Y	>20Y
Liquidity potential (accumulated)	12,823	17,848	3,070	–188	29	56
Net cash flows from derivatives (accumulated)1)	–178	–56	1,170	–252	–1,132	–1,141
Net cash flows from other products (accumulated)	–8,662	–10,777	8,977	6,400	4,583	873
Liquidity balance (accumulated)	**3,983**	**7,015**	**13,216**	**5,960**	**3,481**	**–212**
For information purposes:						
Net cash flows from derivatives by legal maturity (accumulated) [1]	–178	–438	–838	–2,612	–3,269	–1,141
Net cash flows from other products by legal maturity (accumulated)	–7,999	–15,258	–20,444	–1,804	–47	73
Net cash flows by legal maturity (accumulated)	**–8,177**	**–15,695**	**–21,283**	**–4,416**	**–3,315**	**–1,068**

1) Including lending substitute transactions and issued CLNs

As at 31 December 2017, 60.6% (2016: 56.2%) of total refinancing related to repo transactions, overnight and time deposits and other money market products. The remainder of the refinancing related to capital market products, primarily with longer maturity profiles, with bearer bonds making up by far the largest proportion. The refinancing profile for lending business was well balanced in terms of maturity structure.

Money market refinancing was broadly diversified across a range of investor groups. Most of the investors in money market refinancing are financial service providers such as clearing houses, stock exchanges and funds, or large banks and savings banks. Savings banks accounted for 16.3% of money market refinancing, while funds represented 25.6%.

Some 59.8% of total refinancing was obtained in Germany and other eurozone countries. Another 10.3% was attributable to the United Kingdom. This relatively large proportion is essentially due to the high volume of secured repos with LCH.Clearnet.

The regulatory requirements in relation to the Liquidity Coverage Ratio (LCR) were met throughout the period under review. The Group-level LCR stood at 152.5% as at 31 December 2017. The average figure for the year was 132.0% (previous year: 114.4%). During the year, the LCR ranged from 114.2% to 154.8%. The LCR was thus substantially above the minimum limit of 80.0% applicable in 2017.

A minimum LCR of 100% applies from 2018 onwards. As the Deka Group is subject to the rules under articles 411 to 428 of the CRR, full introduction of the LCR means that the German Liquidity Regulation ceased to apply to the Group as of 1 January 2018. The liquidity ratio calculated under the German Liquidity Regulation stood at 1.9 on 31 December 2017 (2016: 1.7). This is the last time this ratio will be calculated.

Operational risk

Strategic framework and responsibilities

The strategy laid down by the Deka Group to deal with operational risks (OR strategy) forms the basis for organisation of operational risk management. It defines the framework for the Group-wide establishment and operation of a standard system for identifying, assessing, monitoring and managing operational risks. The OR strategy applies to all organisational units of the Deka Group.

Roles and responsibilities

Due to the process-specific nature of operational risks (OR), the Deka Group pursues a decentralised approach to identifying, measuring and managing them. This approach is based on coordinated collaboration between the units set out below.

The Board of Management has overall responsibility for the appropriate handling of operational risks in the Deka Group. In this respect, it is specifically responsible for defining and regularly reviewing the OR strategy, ensuring that required conditions for Group-wide implementation of the strategy are in place and adopting measures for OR management at Group level.

The Risk Modelling unit is responsible for the key components of OR control in the Deka Group. It is primarily responsible for selecting the methodology applied to OR management, for independent OR reporting and for specialist support of the infrastructure required to fulfil these responsibilities.

Risks are identified, measured and managed on a decentralised basis by various functions within the individual Group units. While the division heads are responsible for implementing the requirements specified in the OR strategy and the actual management of operational risks, OR managers are responsible for decentralised application of the methods developed, particularly with regard to ensuring consistent risk assessments. The OR managers are supported by assessors, who, as process experts, identify and evaluate OR loss scenarios as part of a self-assessment process, and by loss documenters.

Cross-divisional functions

In addition to the methods for which the central OR Control unit is responsible at the Deka Group, several specialised cross-divisional functions play an important role in identifying, assessing and managing operational risks.

In performing its duties, the Internal Audit corporate centre also uses information from the OR Control unit, such as risk scenarios and loss events, as supporting information for audit planning and preparation. In return, Internal Audit involves OR Control in its audit findings related to operational risk or loss events.

In the annual Fraud Prevention Forum, the Compliance corporate centre and OR Control collaborate closely – together with representatives of the business divisions and other corporate centres – to identify and assess scenarios regarding other criminal offences (such as employee fraud). OR Control, in its role as the Forum’s sponsor, provides the Forum with information on loss events and identified fraud scenarios, and incorporates the assessments developed at the Forum into the OR records as scenario analyses.

The Data Protection Officer works towards ensuring compliance with laws and regulations regarding data protection in the Deka Group. This is done in particular by monitoring the proper use of data processing software used to process personal data. In addition, the Officer develops suitable measures to ensure that employees who process personal data are familiar with the provisions and special requirements of data protection.

The IT Security & Business Continuity Management unit provides support in the implementation of IT security requirements and is responsible for defining and implementing Business Continuity Management (BCM) across the Deka Group. BCM encompasses all emergency planning measures to protect the Deka Group against losses as a result of business process interruptions during emergencies and crises, and thus also serves to minimise operational risks.

Methods used

The Deka Group uses different methods for managing and controlling operational risks. Taken together, these methods, which are based on different approaches, provide a comprehensive view of both the current risk situation and expected risk trends.

The methods involve both a forward-looking (ex-ante) perspective, including self-assessment and scenario analysis, as well as a backward-looking (ex-post) perspective based on Group-wide loss documentation.

The self-assessment is based on detailed OR loss scenarios and is performed at least once a year. As well as describing and assessing risks with regard to their loss potential and the frequency with which they occur, the self-assessment process also identifies suitable measures to mitigate risk.

The scenario analysis serves as a detailed investigation and assessment of very rare OR loss events involving extremely large potential losses, which, due to their cross-unit nature and potentially high maximum loss potential, cannot be adequately identified via the self-assessment process. As part of this process, regularly updated risk factors related to both the Group's internal controls and its business environment are incorporated into the assessment of scenarios. These factors therefore increase the sensitivity of the scenarios to risk and help the Group to identify developments and determine management actions in a timely manner.

OR loss events are recorded in a structured manner with the help of a central loss database starting from a minimum gross limit of €5,000 at the Deka Group level. As well as providing a description of the loss, the database includes documentation that covers the causes of the loss and suitable measures to avoid similar cases in the future. Any expected mitigation of losses is only taken into account where the loss reduction is permissible under accounting rules. The findings of the loss documentation are used to validate the risk assessment contained in the self-assessments.

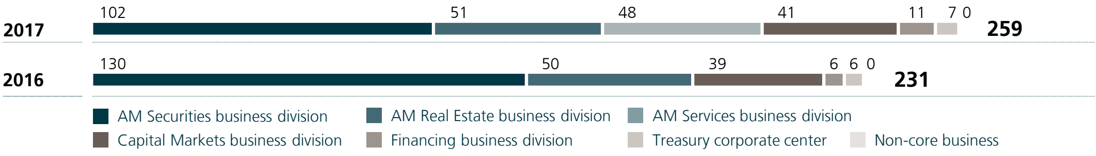
To determine the economic capital requirement for operational risks, the Deka Group uses an advanced measurement approach (AMA) that has been approved by regulatory authorities. This approach quantifies the Bank's operational risk based on a loss distribution approach, using methods set out in the approach itself and external loss data to supplement the data on internal losses. The value-at-risk figures thus identified are incorporated into both the regulatory capital and reserves requirement and the internal risk-bearing capacity analysis of the Deka Group.

Current risk situation

The VaR for operational risk (confidence level of 99.9%, holding period of one year) increased from €231m at year-end 2016 to €259m. The risk capital of €320m allocated to operational risks (2016: €310m) was thus 81.0% utilised. This utilisation level should be regarded as non-critical, in view among other things of the expected stable development over the long term.

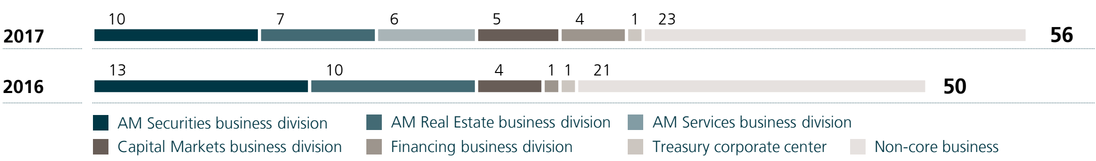
The rise in operational risk was principally due to the revised assessment of a scenario analysis covering the retroactive amendment of taxation terms. Whilst this resulted in a rise in ex-ante risk assessments, the comparatively small number and amount of actual incurred losses led to a slight drop in the ex-post result. By contrast, the observable shifts in the distribution of VaR between the business divisions, the Treasury corporate centre and non-core business, which are significant for internal management purposes, are essentially due to the change in divisional structure that was implemented at the start of the year.

Value-at-Risk *€m (Fig. 32)*



The OR loss potential identified in the Group-wide risk inventory recorded a moderate increase to €56m (2016: €50m), thus continuing the previous year's trend towards an increased risk assessment in the divisions. In addition to the risk of legal changes referred to above, significant contributors to this development were higher estimates of the probability of occurrence for processing errors and regulations providing for tougher fines in various areas. In contrast to VaR, which is an upper limit for losses with a specific probability that the limit will not be exceeded, loss potential is an expected value that results from the estimated frequency of occurrence and scale of losses of all OR scenarios in the Deka Group. The distribution of loss potential also reflects the reorganisation of the business divisions, in the form of a shift from Asset Management Securities to the new Asset Management Services business division and from Asset Management Real Estate to the Financing business division.

Loss potential *€m (Fig. 33)*



Based on the Federal Ministry of Finance (BMF) circular on the tax treatment of cum/cum transactions of 17 July 2017, tax risks exist in connection with relief from withholding tax (*Kapitalertragsteuer*) on share transactions made around the dividend record date in the years 2013 to 2015. All matters are reported in the 2017 consolidated financial statements in accordance with DekaBank's interpretation of the relevant tax regulations and accounting standards.

In addition, DekaBank has begun a voluntary investigation to ascertain whether its involvement enabled third parties to conduct share trades around the dividend record date and make use of abusive tax structures or whether it was otherwise involved in such structures. Investigations into this matter have not yet been fully concluded. Based on the results available to date, DekaBank considers it unlikely that the tax authority will be able to make a successful claim in relation to these matters.

Compliance

The Deka Group's Compliance corporate centre reports directly to the Board of Management and is designed so as to ensure that the Compliance function is durable, effective and independent. The Compliance department also carries out the compliance functions and the role of Money Laundering Officer for a number of regulated subsidiaries in Germany, under service level agreements. Compliance duties for Luxembourg-based companies are performed by the local Compliance unit in Luxembourg. The Responsible Officer position is held by the head of the Compliance corporate centre for relevant units in Germany and Luxembourg. The international offices in Japan and New York have local Compliance Officers who have a reporting line to the Compliance corporate centre.

The Compliance corporate centre is responsible for monitoring compliance with regulatory requirements arising under capital markets and investment law pursuant to the German Securities Trading Act (*Wertpapierhandelsgesetz* – WpHG), the German Investment Code (*Kapitalanlagegesetzbuch* – KAGB) and relevant European rules. The corporate centre works to ensure that compliance requirements and regulations relating to capital market and real estate activities are adhered to.

In addition, the Compliance corporate centre fulfils requirements under the German Money Laundering Act (*Geldwäschegesetz* – GwG) and German Banking Act (*Kreditwesengesetz* – KWG), including ensuring that there are internal safeguards to prevent money laundering, terrorist financing and other criminal actions in accordance with section 25h (1) KWG by providing a central office within the Bank. The corporate centre is also responsible for monitoring compliance with financial sanctions and embargoes at national and international level.

In addition, the requirements of MaRisk (AT 4.4.2) are fulfilled by a compliance function which is responsible for identifying and limiting compliance risks, and advising the Board of Management and the specialist units, particularly in connection with the implementation of effective processes and procedures to ensure adherence to significant legal regulations and requirements related to compliance.

In carrying out its duties, the Compliance unit advises and trains the specialist units on an ongoing basis. It also carries out risk-based reviews regarding adherence to statutory and regulatory requirements related to compliance and to the overall compliance guidelines.

The Compliance unit performs a risk analysis and assesses the procedures and controls established by the business units to determine whether they are appropriate and effective.

The Compliance Officer provides a written report on the activities of the organisational unit to the Board of Management on a regular basis, in accordance with legal requirements (at least once a year), and is also the point of contact for supervisory authorities and other governmental agencies. In addition, the chairman of the supervisory board has the right to demand the immediate provision of information from the Compliance Officer, with the involvement of senior management.

The ongoing implementation and integration of compliance requirements in day-to-day business is intended to contribute to the transparent adherence to compliance standards as well as to help reinforce trust among investors and the public and safeguard customer interests. The compliance regulations also protect employees; they help to maintain the Deka Group's good reputation in the market and ensure that conflicts of interest are managed effectively.

Accounting-related internal control and risk management system

The Board of Management of the Deka Group has overall responsibility for the internal control and risk management system. The system is based on a Group-wide organisational and control structure. The Finance corporate centre is responsible for preparing and coordinating monthly, quarterly and annual financial statements. The units involved in the accounting process are appropriately staffed, in terms of both the number of personnel and their qualifications. Furthermore, a regular and cross-divisional exchange of information between the units makes an important contribution to minimising the risks associated with the preparation of financial statements.

In principle, risks exist in the accounting process as a result, for example, of inconsistent application of reporting and accounting standards, incorrect recognition of business transactions, and due to malfunctions and errors in the IT systems used for accounting purposes.

The Deka Group's internal control system ensures proper accounting in accordance with applicable statutory and legal provisions. Its key features are the rigorous integration of control activities and procedures into processes, in particular by applying the dual control principle as well as risk-oriented segregation of duties in corporate centres. To this end, the Bank performs automated routine checks and, when required, manual control and reconciliation procedures. The implementation of these activities and the procedures to be followed are documented in specialist and implementation plans.

Additional checks – for example in order to substantiate balance sheet items – are carried out at an aggregated level by "sub-position managers". These employees, who have in-depth product knowledge, are also responsible for regularly calculating results. The dual control principle applies here as well and is carried out by an employee with supervisory responsibilities.

The accounting recognition of business transactions is governed centrally by a Group accounting policy. This policy describes key accounting requirements and documents the standard accounting processes that apply throughout the Group. This ensures, amongst other things, that the same business transaction is accounted for uniformly in different Deka Group units and companies in compliance with the applicable accounting standards. Specific work instructions are used to implement Group policy at operational level in individual specialist departments. These instructions also describe the control mechanisms to be followed. Guidelines and authorisation procedures have been developed for the central systems that generate accounting information as part of the preparation of financial statements. Compliance with these guidelines and concepts is regularly monitored by Internal Audit.

The Deka Group mainly uses standard software for accounting. The systems are safeguarded against unauthorised access by external parties and are comprehensively backed-up to protect against data loss. The internal control system is regularly reviewed by Internal Audit.

Business risk

The business risk strategy set by the Board of Management serves throughout the Group as the basis for monitoring and managing business risks and incorporating them into the Group's risk-bearing capacity analysis. A variety of complementary instruments are employed to identify, assess and manage business risks.

Further improvements were made during the year to the model used to quantify business risk in the course of risk-bearing capacity analysis. Key risk factors for the funds business are the planned and actual commission income and expenses and the size of the assets under management. Both assets under management and net commission income depend on customer behaviour and the market environment. Account is taken of fund price movements and unexpected net outflows when determining fund volatility. For banking activities, margins on commission business are taken into account as an additional risk factor. There are currently no business risks to be considered in the Treasury corporate centre and non-core business.

During the year under review, the VaR for business risk fell to €234m (2016: €356m). Risk capital of €400m is allocated to business risk (2016: €540m). Utilisation is thus 58.6%, which is within the non-critical band.

The introduction of more precise modelling for price movements and changes in customer behaviour, which now takes account of movements in assets under management, had the effect of reducing the risk level in the Asset Management Securities and Asset Management Real Estate business divisions. In the Capital Markets business division, risk levels decreased in particular due to the introduction of a VaR approach in place of the gross method previously used for banking business.

Reputational risk

Because of the way they affect the business, reputational risks are seen as a component of, or as factors that increase, other types of risk. Existing types of risk can be both a cause and an effect of reputational damage. The effects of reputational damage relate primarily to business risk and liquidity risk.

In accordance with the definition of reputational risk, it is initially determined, assessed, managed and reported on within the context of the individual risk types concerned. For instance, when conducting the self-assessment of operational risks, a systematic determination and qualitative assessment of reputational risks are also performed. At the same time, reputational risks are managed in connection with counterparty risks via blacklists and using an appropriate assessment as part of the credit approval process. Finally, when evaluating business risk, the risk of lower commissions due to the materialisation of reputational risks is taken into account.

Other risks

Shareholding risk

Equity investments (shareholdings) include all direct and indirect holdings of the Deka Group in other companies, regardless of their legal form. Equity investments held as credit substitute transactions fall under the credit risk strategy. In principle, the Deka Group does not pursue any trading interests when taking an equity interest.

The basis for determining the shareholding risk position is the IFRS book value of the (unconsolidated) equity investment. The risk is measured on the basis of the volatility of a benchmark index from the equity market.

The VaR at 31 December 2017 was €37m, which was above the previous year's level of €20m. This was due to the remeasurement of the fair value of various equity investments. The risk capital allocated to shareholding risks was increased accordingly to €60m during the year (2016: €45m).

Property fund risk

Property fund risk results from property fund units held in the Bank's own portfolio. The corresponding VaR fell to €8.0m (2016: €19m) as a result of a reduction in the portfolio position. It thus remains an immaterial risk for the Deka Group. An amount of €40m was allocated to property fund risk at the year-end (2016: €45m) in the course of risk-bearing capacity analysis. Property fund risk will be modelled as part of market price risk as from the 2018 financial year.

Structured capital market credit products

Structured capital market credit products comprise the securitisation portfolio of DekaBank's former Liquid Credits portfolio, which has not been considered to be strategic since 2009 and is being reduced while safeguarding assets. It is assigned to non-core business.

Since the business is being wound down, this portfolio no longer forms a significant part of DekaBank's overall portfolio in volume terms. As a result of maturities and repayments, the net nominal value as at 31 December 2017 was only €173.6m (2016: €319.2m).

At the year-end, 100% of the portfolio (2016: 99.0%) consisted of investment-grade securities. The remaining portfolio continues to focus on western Europe. As at the end of 2017, 95.4% of the securitisations related to the European market (2016: 91.9%).

Based on current expectations, more than half of the remaining securitised positions will be repaid or will expire by mid-2020.

Based on a confidence level of 99% and a holding period of ten days, the credit spread risk for the securitisation positions in non-core business totalled €1.2m as at the year-end (2016: €1.3m).