Volksbanken Raiffeisenbanken
cooperative financial network

2015

ANNUAL FINANCIAL STATEMENTS AND MANAGEMENT REPORT OF DZ BANK AG

DZ BANK

KEY FIGURES

DZ BANK AG

€ million	2015	2014
FINANCIAL PERFORMANCE		
Operating profit before allowances for losses on loans and advances	514	573
Allowances for losses on loans and advances	46	-55
Operating profit	560	518
Net income for the year	224	213
Cost/income ratio (percent)	67.7	62.2

	Dec. 31, 2015	Dec. 31, 2014
NET ASSETS		
Assets		
Loans and advances to banks	81,319	80,716
Loans and advances to customers	22,647	22,443
Bonds and other fixed-income securities	39,375	39,821
Shares and other variable-yield securities	55	66
Trading assets	39,192	45,540
Other assets	15,148	15,598
Equity and liabilities		
Deposits from banks	91,529	85,388
Deposits from customers	17,985	22,855
Debt certificates issued including bonds	38,973	39,016
Trading liabilities	29,167	37,028
Other liabilities	12,074	11,903
Equity	8,008	7,994
Total assets/total equity and liabilities	**197,736**	**204,184**
Volume of business[1]	**220,478**	**226,813**

	Dec. 31, 2015	Dec. 31, 2014
LIQUIDITY ADEQUACY		
Economic liquidity adequacy (€ billion)[2,3]	4.0	1.9
CAPITAL ADEQUACY		
Economic capital adequacy (percent)[4,5]	173.3	167.3
Total capital ratio (percent)[6]	26.6	24.9
Tier 1 capital ratio (percent)[6]	20.2	17.8
Common equity Tier 1 capital ratio (percent)[6]	19.1	17.8
Leverage ratio (percent)	4.6	
AVERAGE NUMBER OF EMPLOYEES DURING THE YEAR	**4,312**	**4,250**
LONG-TERM RATING		
Standard & Poor's	AA-	AA-
Moody's Investors Service	Aa3	A1
Fitch Ratings	AA-	A+

1 Total equity and liabilities including contingent liabilities and other obligations.
2 Stress scenario with the lowest minimum liquidity surplus.
3 Disclosures for DZ BANK (the disclosures in the 2014 annual financial statements and management report were for the DZ BANK Group).
4 Owing to the close ties between the management of economic capital adequacy at DZ BANK and that of the DZ BANK Group, the figure for the group also applies to DZ BANK.
5 The figure as at December 31, 2014 differs from the figure in the 2014 annual financial statements and management report because the overall solvency requirement for the Insurance sector was recalculated as scheduled in the second quarter of 2015.
6 Calculation in accordance with the Capital Requirements Regulation.

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MANAGEMENT REPORT OF DZ BANK AG

NOTE

DZ BANK AG Deutsche Zentral-Genossenschafts-bank, Frankfurt am Main, (DZ BANK) implements the transparency requirements as specified in section 289 of the German Commercial Code (HGB) with the publication of this management report. In addition, the report satisfies German accounting standard no. 20 (Group Management Report), which relates to management reports that apply at group level.

All figures are rounded to the nearest whole number. This may result in very small discrepancies in the calculation of totals and percentages.

I. DZ BANK AG fundamentals

1. BUSINESS MODEL

DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main, (DZ BANK) focuses closely on the local cooperative banks, which are its customers and owners. The DZ BANK Group makes a significant contribution to helping the cooperative banks strengthen their market position by providing them with competitive products and services for incorporation into their end-customer business. The support is provided on the basis of the subsidiarity principle. In addition, the local cooperative banks benefit from substantial financial support in the form of fees, commissions, bonuses, profit distributions, and the transfer of cost benefits.

The focus on network-based business is always given priority, especially in times when resources are in short supply. In its role as a corporate bank, DZ BANK offers complementary services using existing products, platforms, and support activities. These services are constantly reviewed both from a strategic perspective (for example, so that there is no direct competition with the cooperative banks) and from an economic perspective (for example, so that the returns are appropriate and the risk acceptable).

The terms DZ BANK Group and DZ BANK financial conglomerate are synonymous and refer to all the management units together. The context dictates the choice of term. For example, in the case of disclosures relating to economic management, the focus is on the DZ BANK Group, whereas in the case of regulatory issues relating to all the management units in the DZ BANK Group, the appropriate term is DZ BANK financial conglomerate.

The DZ BANK financial conglomerate mainly comprises the DZ BANK banking group and R+V Versicherung AG, Wiesbaden, (R+V Versicherung; subgroup abbreviated to R+V). DZ BANK acts as the financial conglomerate's parent company.

2. STRATEGIC FOCUS AS A NETWORK-ORIENTED CENTRAL INSTITUTION AND FINANCIAL SERVICES GROUP

The strategic focus at DZ BANK follows the guiding principle of fulfilling the role of a network-oriented central institution and financial services group. Its objective is to consolidate the positioning of the Volksbanken Raiffeisenbanken cooperative financial network as one of the leading financial services providers in Germany on a long-term basis. To achieve this aim, DZ BANK is steadfastly pursuing a strategy of network-oriented growth, consistent focus, and closer integration of DZ BANK within the cooperative financial network.

In 2015, DZ BANK and WGZ BANK AG Westdeutsche Genossenschafts-Zentralbank, Düsseldorf, (WGZ BANK) announced that they were proceeding toward a merger, creating one cooperative central institution and thereby completing the consolidation of the superstructure of the cooperative financial network. The members of the Boards of Managing Directors and the Supervisory Board chairmen of both banks signed a corresponding Memorandum of Understanding in November 2015. The merger will bring together the strategic and operating strengths of the two banks for the benefit of the entire cooperative financial network, based on a successful business model and complementary market territories. The merger agreement is scheduled to be signed in April 2016. The planned start date for the commencement of operations by the joint central institution is August 1, 2016. The potential synergies – from strategic, business management, and regulatory perspectives – are considerable. Looking ahead, there are also plans to establish a holding company to bring together overarching strategic and managerial functions, taking into account the regulatory framework. It is envisaged that the transformation into a holding company model would take place by the end of the decade following completion of the integration process. The joint central institution will be able to expand the collaboration with the cooperative banks – which number more than 1,000 – on a forward-looking basis with all services from a single source, driven by the consistent focus on the cooperative financial network.

Another great challenge that banks are having to face, in addition to the low interest rates and the regulatory framework, is the digitization of banking business. Together with WGZ BANK and all the other partners in the cooperative financial network, DZ BANK is therefore involved in the Kundenfokus 2020 project led by the Bundesverband der Deutschen Volksbanken und Raiffeisenbanken e.V., Berlin, (BVR) [National Association of German Cooperative Banks]. The essence of this project is to integrate sales channels and take them to a new level with the specific aim of creating an omnichannel presence. The Kundenfokus 2020 project is thus the logical successor to the two preceding projects, Beratungsqualität (quality of advice) and webErfolg (web success). The comprehensive new project comprises numerous initiatives that will lay the foundations enabling the local cooperative banks to offer their customers and members an efficiently integrated online and offline range of products and services. This is the only way in which the cooperative financial network can safeguard its excellent market position for the future given the acceleration in digitization driven by fintech companies and innovators from outside the sector. One example of the capability available within the established banking sector and the successful collaboration that can be achieved is the paydirekt online payments solution, a system developed in line with market requirements and launched during the year under review. The German banking industry has jointly created an e-commerce payments solution that is secure and easy to use for both customers and merchants and that is able to compete with the new and established players in the sector.

The DZ BANK Group has set up an innovation management system, which coordinates all the existing innovation-related activities across the whole of the group. Within this system, innovation-related activities are discussed and possible areas for action identified in close cooperation with the BVR and the various committees in the DZ BANK Group. Collaboration with network partners and with third-party business growth accelerator companies, such as Axel Springer Plug & Play Accelerator, also helps DZ BANK and the cooperative financial network support digital innovations at an early stage.

DZ BANK has also maintained its forward-looking corporate strategy in the individual business lines.

2.1. CORPORATE BANKING

The corporate banking business of the local cooperative banks and DZ BANK is subject to fierce competition in the German market. The low level of interest rates currently prevailing is also continuing to increase the pressure on margins in this business line. To counter this trend, it is becoming more and more important to attract new customers through intensive, structured marketing and provide existing clients with comprehensive needs-based support.

In the year under review, DZ BANK continued to press ahead with its FokusKunde! initiative with the aim of attaining the growth targets specified for this business line. The main thrust of this initiative is, among other things, to optimize sales and management in corporate banking and address significant issues that cut across different areas of responsibility. More specifically, the initiative aims to ensure a clear customer focus, sales excellence in corporate banking, and the streamlining of processes and management in this business line. The initiative is also delivering further improvements in the collaboration between customer and product managers within the DZ BANK Group to strengthen cross-selling activities. FokusKunde! is therefore supporting the objectives of broadening the customer base, strengthening existing customer relationships by using products from the financial services group, and establishing more relationships in which DZ BANK is the principal bank of the customer concerned.

Since mid-2015, corporate banking and international business for corporate customers have been managed in a separate unit. This has continued the process of tightening up the holistic sales approach in corporate banking with a focus on international business products. The establishment of competence centers for international business at 8 regional locations means that corporate customers of the cooperative financial network and DZ BANK can be supported in their international business activities in line with their needs.

DZ BANK has joined with WGZ BANK and VR-LEASING AG, Eschborn, (VR-LEASING AG; subgroup abbreviated to VR LEASING) to develop an innovative online sales channel for the cooperative financial network with the name Easy Entry Business. This facility is offered on the Deutschland – made by Mittelstand website, where small and medium-sized enterprises and self-employed customers can submit a specific, structured customer inquiry. Easy Entry Business allows online activity by corporate customers to be turned into well-defined business inquiries for the lending, leasing, and investment product groups that can then be processed appropriately. Since mid-2015, the solution has also been available to local cooperative banks for integration into their websites and so far has been piloted by 22 banks.

2.2. RETAIL BANKING

DZ BANK offers the local cooperative banks and their customers a comprehensive range of retail banking securities services. In 2015, DZ BANK became the market leader in the overall German market for investment certificates, demonstrating the success of these services.

DZ BANK systematically pursues an omnichannel approach in its retail banking securities services and supports the local cooperative banks with their omnichannel presence. The focus is on customers, with the objective of offering them a comprehensive personal investment solution that is tailored to their needs and available around the clock. From the customer perspective, this means both access to the bank in person as well as digital access, i.e. visits to a branch and personal contact with a customer advisor as well as access via a mobile login, numerous online tools (such as VR-ProfiBroker and VR-ProfiTrader), and the new derivatives portal at www.dzbank-derivate.de.

2.3. CAPITAL MARKETS

DZ BANK's customer-oriented capital markets business is focused on serving diverse customer requirements for investment and risk management products involving the asset classes of interest rates, loans, equities, foreign exchange, and commodities. The range of products and services is based mainly on the needs of the cooperative banks, their retail and corporate customers, and the corporate customers and institutional customers in Germany and abroad supported directly by DZ BANK. During the year under review, DZ BANK concentrated on a number of areas, notably the refinement of customized relationship management approaches and further expansion of electronic trading platforms for relevant products and customers to maintain the process of structuring the capital markets business profitably over the long term.

A fundamental part of capital market activities are the key functions carried out by Group Treasury within the cooperative financial network and within the management of both the group and DZ BANK. These functions include cash-pooling for the cooperative financial network, coordination of the cash flows within the DZ BANK Group, and the management of interest-rate risk at DZ BANK.

2.4. TRANSACTION BANKING

In the transaction banking business, DZ BANK again provides a comprehensive range of services for the local cooperative banks and supports the marketing activities of these banks.

One aspect of digitization that is currently receiving a great deal of attention from the cooperative financial network is the issue of online and mobile payment solutions, i.e. e-payments and m-payments. In the year under review, the cooperative financial network established and put into operation the new paydirekt online payments solution in an overarching project implemented jointly with other financial institutions in Germany. The launch of this solution is enabling the cooperative financial network to meet the challenge posed by increasing competition from third-party providers and is thereby helping to safeguard the income stream from payments business. With further development, the paydirekt system could be extended to provide a mobile payments solution. The new online payments system is therefore not only expanding the product portfolio of the local cooperative banks in the e-commerce sector, but is also already providing an upgradable basis for further innovation. Other development work being carried out by DZ BANK in transaction banking includes a highly detailed critical analysis of possible opportunities in payments processing and securities settlement business. This work is being carried out jointly with ReiseBank AG, Frankfurt am Main, (ReiseBank) and involves discussions with universities and technology enterprises.

Significant competitive pressures combined with new regulations known to be coming into force are changing the payments and card processing landscape. To counter the effects of these trends, DZ BANK is offering the local cooperative banks strategic assistance backed by specific action and campaigns to help them maintain a successful card processing business over the long term. In 2015, these efforts resulted in an increase in the number of credit cards in line with the objectives of the Wachstumsinitiative Karten (cards growth initiative).

3. MANAGEMENT OF DZ BANK

3.1. GOVERNANCE

3.1.1. Integration within the cooperative financial network

The DZ BANK Group is a financial services group comprising entities that function as product specialists, providing the Volksbanken Raiffeisenbanken cooperative financial network with an entire range of financial services. Given the particular nature of the group, the Board of Managing Directors of DZ BANK consciously manages the group with a balanced centralized and decentralized approach with clearly defined interfaces and taking into account business policy requirements.

The three defining features of governance in the DZ BANK Group are the general management approach of the DZ BANK Group, appointments to key posts in the subsidiaries, and the committee structure.

For the purposes of managing the subsidiaries through appointments to key posts, a representative of DZ BANK is appointed in each case as the chairman of the supervisory body and generally also as the chairman of any associated committees (risk and investment committee, audit committee, human resources committee).

3.1.2. Corporate management committees

The **Group Coordination Committee** ensures coordination between the key entities in the DZ BANK Group with regard to consistent management of opportunities and risks, capital allocation, strategic issues, and leveraging synergies. In addition to the entire Board of Managing Directors of DZ BANK, the members of this committee comprise the chief executive officers of Bausparkasse Schwäbisch Hall AG, Schwäbisch Hall, (Bausparkasse Schwäbisch Hall; subgroup abbreviated to BSH), DZ PRIVATBANK S.A., Luxembourg-Strassen, (DZ PRIVATBANK S.A.; subgroup abbreviated to DZ PRIVATBANK), R+V, TeamBank AG Nürnberg, Nuremberg (TeamBank), Union Asset Management Holding AG, Frankfurt am Main, (Union Asset Management Holding; subgroup abbreviated to UMH), VR LEASING, and Deutsche Genossenschafts-Hypothekenbank AG, Hamburg, (DG HYP).

Working groups whose members comprise representatives from all strategic business lines and group functions are responsible for the following areas of activity and report to the Group Coordination Committee:

– product and sales/marketing coordination for retail customers, corporate customers, and institutional clients;
– IT, operations, and resources strategies;
– human resources management;
– finance and liquidity management/ risk management.

The **Group Risk and Finance Committee** is the central committee in the DZ BANK Group responsible for proper operational organization and, in particular, risk management in accordance with section 25 of the German Supervision of Financial Conglomerates Act (FKAG) and section 25(a) of the German Banking Act (KWG). It assists DZ BANK with groupwide financial and liquidity management and provides support for risk capital management throughout the group. The Group Risk and Finance Committee also assists the Group Coordination Committee in matters of principle. The members of this committee include the relevant executives at DZ BANK responsible for Group Finance/Group Strategy & Controlling, Group Risk Controlling/Credit, and Group Treasury. The committee members also include representatives of the executives of various group companies. The Group Risk and Finance Committee has set up the following working groups to prepare proposals for decision-making and to implement management action plans.

– The **Group Risk Management working group** supports the Group Risk and Finance Committee in all matters concerning risk and the management of risk capital and market risk in the DZ BANK Group, and in matters relating to external risk reporting. At DZ BANK level, the monitoring and control of the aggregate risks to the bank is coordinated by the Risk Committee. The Risk Committee makes recommendations to the entire Board of Managing Directors in matters relating to risk management, risk methodology, risk policies, risk processes, and the management of operational risk.

– The **Architecture and Processes Finance/Risk working group** assists the Group Risk and Finance Committee with the further development of the integrated finance and risk architecture in the DZ BANK Group.

– The management of credit risk throughout the group is the responsibility of the **Group Credit Management working group** of the Group Risk and Finance Committee. The limitation and monitoring of credit risk is based on agreed and binding group standards and procedures, taking into account the business policy concerns of the entities involved. The Group Credit Management working group is responsible for the further development of the group credit risk strategy and the group credit manual and assists the Group Risk and Finance Committee with the groupwide harmonization of credit-related processes with due regard to their economic necessity. The monitoring and control of DZ BANK's credit portfolio is coordinated by the Credit Committee. This committee normally meets every two weeks and makes decisions on material lending exposures at DZ BANK, taking into account the credit risk strategy of both the bank and the group. The Credit Committee is also responsible for managing DZ BANK's credit risk and country risk throughout the DZ BANK Group.

– The Group Risk and Finance Committee's **Market working group** is responsible for providing implementation support throughout the group in the following areas: liquidity management, funding activities, balance sheet structure management, and capital management. This body also focuses on coordinating and dovetailing funding strategies and liquidity reserve policies, as well as on planning the funding within the DZ BANK Group. At DZ BANK level, the Treasury and Capital Committee is the central body responsible for the operational implementation of the strategic requirements in the following areas to ensure integrated resource management: capital management, balance sheet and balance sheet structure management, liquidity and liquidity risk management, and income statement and profitability management. This committee also discusses overarching issues and current regulatory matters with the aim of identifying those requiring management action.

– The **Finance working group** advises the Group Risk and Finance Committee on matters concerning the consolidated financial statements, tax law, and regulatory law. It discusses new statutory requirements and works out possible implementation options.

The members of the **Innovation Roundtable** comprise specialists, executive managers, and innovation managers from the various divisions of DZ BANK and the group companies. The Innovation Roundtable is therefore the Group Coordination Committee's key point of contact for information on innovations and trends relevant to the group. The objectives of the Innovation Roundtable are to systematically examine innovative topics with group relevance on an ongoing basis, to bring together the divisions involved in innovation projects and to ensure that innovation activities in the DZ BANK Group are transparent. Innovation topics are broadly based throughout the DZ BANK Group and are developed in the relevant departments and subsidiaries by the product and sales committees.

The **product and sales committees** are acting as centers responsible for coordination and pooling functions relating to the range of products and services provided by the DZ BANK Group. The **retail customers** product and sales committee coordinates products and services, and the marketing activities of its members where there are overarching interests affecting the whole of the group. The common objective is to generate profitable growth in market share for the cooperative banks and the entities in the DZ BANK Group with a focus on customer retention and attracting new customers by providing needs-based solutions (products and processes) as part of a holistic advisory approach across all sales channels (omnichannel approach).

The **institutional clients** product and sales committee helps to strengthen the position of the DZ BANK Group in the institutional clients market.

The **corporate customers** product and sales committee is responsible for coordinating the strategies, planning, projects, and sales activities in the DZ BANK Group's corporate banking business if overarching interests are involved. The objective is closer integration in both the joint lending business with the cooperative banks and the direct corporate customer business of the entities in the DZ BANK Group.

The DZ BANK Group **Heads of Internal Audit working group**, which is led by DZ BANK, coordinates group-relevant audit issues and the planning of cross-company audits and activities based on a common framework drawn up and approved by the relevant members of the Board of Managing Directors. This working group also serves as a platform for sharing specialist information across the group – especially information on current trends in internal audits – and for developing best practice in internal audit activities. The working group reports to the Chief Executive Officer of DZ BANK and, where appropriate, to the Group Coordination Committee.

The **Group IT Committee**, comprising the members of the boards of managing directors of the main group entities with responsibility for IT, supports the Group Coordination Committee in matters relating to IT strategy. This committee manages all overarching IT activities in the DZ BANK Group. In particular, the Group IT Committee makes decisions on collaboration issues, identifies and realizes synergies, and initiates joint projects.

The members of the **Group HR Committee** comprise the members of the boards of managing directors with responsibility for HR and the HR directors from the main entities in the DZ BANK Group. This committee helps the Group Coordination Committee address HR issues of strategic relevance. The Group HR Committee initiates and coordinates activities relating to overarching HR issues while at the same time exploiting potential synergies. It also coordinates the groupwide implementation of regulatory requirements concerning HR systems and facilitates the sharing of HR policy information within the DZ BANK Group.

The **Economic Roundtable**, the members of which comprise the economists from the main group companies, helps the Group Coordination Committee to assess economic and capital market trends, providing a uniform basis for consistent planning scenarios throughout the group, and to prepare risk scenarios required by regulators.

3.2. MANAGEMENT UNITS

The DZ BANK Group comprises DZ BANK as the parent company, the DZ BANK Group's fully consolidated subsidiaries in which DZ BANK directly or indirectly exercises control, and other long-term equity investments that are not fully consolidated.

All entities in the DZ BANK Group are integrated into groupwide management. In the case of subgroups, the disclosures in the management report on management units relate to the entire subgroup comprising the parent company of the subgroup plus its subsidiaries and second-tier subsidiaries. The management units are managed by the parent company in the subgroup, which is responsible for compliance with management directions in the subsidiaries and second-tier subsidiaries.

The following management units are each managed as a separate operating segment:

- DZ BANK
- BSH
- DG HYP
- DVB Bank SE, Frankfurt am Main, (DVB Bank; subgroup abbreviated to DVB)
- DZ PRIVATBANK
- R+V
- TeamBank
- UMH
- VR LEASING.

These fully consolidated entities are management units and form the core of the financial services group. DZ BANK forms a separate management unit from a higher-level perspective.

3.3. KEY PERFORMANCE INDICATORS

- **Profitability figures:**
  The profitability figures (allowances for losses on loans and advances, profit/loss before taxes, net income for the year) are presented in chapter II., section 3.1. of this management report.

- **Volume figures:**
  One of the main volume KPIs is equity. Equity is described in chapter II., section 4. of this management report.

- **Productivity:**
  One of the most significant productivity KPIs is the cost/income ratio. This figure is described in chapter II., section 3.1. of this management report.

- **Capital adequacy:**
  The KPIs and the calculation method for economic capital adequacy are described in chapter VI., section 7.2. of this management report. The KPIs for regulatory capital adequacy are included in chapter VI., section 7.3.

3.4. MANAGEMENT PROCESS

In the annual strategic planning process, the entities in the DZ BANK Group produce a business strategy (objectives, strategic direction, and initiatives), a finance and capital requirements plan, and a risk strategy derived from the business strategy.

The feasibility of the planning by the management units is then assessed and the plans are also discussed and examined in strategy meetings. When the individual entity planning has been completed, the process then moves on to consolidated group planning, allowing active management of the DZ BANK Group's economic and regulatory capital adequacy.

Target attainment is monitored in a number of ways, notably in quarterly meetings with the subsidiaries and in review meetings with the DZ BANK divisions.

Groupwide initiatives are implemented in order to unlock identified marketing potential. These include the development of new, innovative products and sales methods for the strategic business lines – Corporate Banking, Retail Banking, Transaction Banking, and Capital Markets – in order to further strengthen sales by the DZ BANK Group and the local cooperative banks. Regular reports on the individual initiatives are submitted to the relevant product and sales committee. If appropriate, certain aspects of the initiatives may be handled by the Group Coordination Committee. This results in more efficient cooperation in the cooperative financial network.

At DZ BANK level, the main divisions involved in the strategic planning process are Group Strategy & Controlling, Group Risk Controlling, Group Finance, and Research and Economics. The planning coordinators in the front-office divisions and the subsidiaries are also incorporated into the process. The Group Strategy & Controlling division is responsible for overall coordination, including strategic financial planning as part of the strategic planning process.

II. Business report

1. ECONOMIC CONDITIONS

Over the reporting year, average inflation-adjusted gross domestic product (GDP) in Germany increased by 1.7 percent year on year.

The economic uptrend of 2014 was sustained in the year under review, with the recovery in economic output in Germany making steady progress, albeit at a modest rate. Growth was 0.4 percent in the first quarter of 2015 and likewise in the second quarter. The gain in economic output was 0.3 percent in both the third and fourth quarters.

In the year under review, eurozone GDP grew by 1.5 percent year on year, although the pace of growth slackened a little over the twelve months following a first-quarter growth rate of 0.5 percent (compared with the previous quarter). While economic recovery still led to growth of 0.4 percent in the second quarter, the gains of 0.3 percent in each of the third and fourth quarters were more muted.

The economic upturn in the eurozone in 2015 was mainly driven by consumer spending. Consumer confidence suffered little lasting adverse impact from the geopolitical crises and military conflicts in Ukraine and the Middle East or from the terrorist attacks in Europe. Lower energy prices also gave a boost to household consumption. Given weaker levels of foreign trade with emerging markets, it is unlikely that eurozone exports will have made any contribution to the growth because they will probably have remained below the level of imports.

In the United States, economic output expanded by 2.4 percent in the year under review. Growth in the US economy initially gathered pace during the course of the year, but fell away again in the fourth quarter. Overall however, the principal economic driver remained the recovery in consumer spending, which was also bolstered by further improvements in the labor market, notably a fall in the unemployment rate and a sharp rise in recruitment. Residential construction also saw a significant recovery. Businesses substantially increased capital investment in plant and machinery too.

Some of the emerging economies continued to experience economic difficulties in the year under review. Weaknesses in commodities markets had a detrimental impact, primarily on Brazil and Russia. China felt the effects of a slowdown in its economic growth. By and large, demand from emerging markets provided less of a growth stimulus for German exports than in previous years.

An increase in consumer and government spending provided a major boost to the German economy in the reporting year. Government spending was also influenced by additional expenditure incurred in connection with the greater influx of refugees. Consumer demand rose by 1.9 percent year on year, aided by robust trends in the labor market and the extremely low returns available on consumer investments. At the same time, however, businesses remained unenthusiastic about spending on capital equipment in view of the geopolitical uncertainties and crises.

The increase in tax receipts generated by the steady economic growth meant that public finances in Germany ended 2015 with a budget surplus of 0.5 percent of GDP.

2. EFFORTS TO STABILIZE THE FINANCIAL SECTOR CONTINUE IN THE SHADOW OF GEOPOLITICAL CRISES

In the reporting year, the focus in the EU continued to be on efforts to stabilize economic conditions in the eurozone.

The euro area maintained its restrained rate of economic growth during the year under review, while growth in the global economy remained steady at a modest level overall.

In the eurozone as a whole, however, only limited progress was made in reducing new and total borrowing. At the end of the third quarter of 2015, the total borrowing of the 19 eurozone countries equated to 91.6 percent of their GDP, a year-on-year decrease of just 0.7 percentage points (September 30, 2014: 92.3 percent).

Eurozone countries Ireland, Portugal, and Spain, which had been reliant on EU aid during the sovereign debt crisis, notched up further significant successes in the reporting year on their path of economic renewal and fiscal recovery. At the start of June 2015, Ireland's long-term credit rating from Standard & Poor's was increased from A to A+. In mid-September 2015, Standard & Poor's upgraded Portugal's credit rating from BB to BB+, and at the beginning of October 2015 Spain's rating from BBB to BBB+. Compared with 2014, all three countries saw their economic output increase in 2015 at a rate higher than or equal to the average growth rate for the eurozone.

France and Italy, countries that are also important in generating overall economic growth in Europe, continued to suffer from a high level of indebtedness and unsatisfactory economic strength. This was the main reason why the pace of growth in France and Italy was again below the European average during the reporting year.

Greece, which in 2014 had managed to increase its real economic output by 0.7 percent year on year, saw a slight contraction in its GDP in 2015 following the shift in economic policy introduced by the radical alliance between the left and the right under Prime Minister Alexis Tsipras.

The US Federal Reserve (Fed) maintained a target range for its federal funds rate near to 0 percent over the whole of the reporting year. On December 16, 2015, the Fed announced that it was raising this target range by 25 basis points, the first rate change since December 2008.

At its meeting held on January 22, 2015, the European Central Bank (ECB) decided to maintain its main refinancing operations interest rate at 0.05 percent and the deposit facility rate for banks at -0.20 percent. It also decided to initiate a bond-buying program with a monthly volume of €60 billion, beginning in March 2015 and running until September 2016. The ECB's stated aim was to counter the risk of deflation and bring inflation back to a level close to, but below, 2 percent. A further objective was to strengthen growth in the eurozone by encouraging greater lending by banks.

The considerable injection of liquidity provided by the ECB's extensive bond-buying program triggered marked price rises in the equities and bond markets, mainly in the first months of 2015. In mid-April 2015, the DAX reached a high for the year of almost 12,300 points. However, over the rest of 2015, this trend gave way to a marked increase in volatility on stock markets as a consequence of the developments outlined below.

Following a prolonged period of uncertainty, the Greek parliament finally gave its consent on July 15, 2015 to the proposed package of reforms representing the conditions for the third Greek bailout of €86 billion originally put forward in mid-July 2015 by the heads of state and government and subsequently approved by the countries in the European Monetary Union (EMU). From the summer months onward, it also became apparent that the Chinese economy was slowing.

In the last quarter of the reporting year, an announcement by Mario Draghi that the ECB would initiate an expansion in its monetary policy measures at the beginning of December 2015 triggered another substantial uptrend in equity markets.

On December 3, 2015 the ECB decided to extend its asset-buying program at the current monthly level until at least March 2017. It also opted to maintain the main refinancing operations rate at 0.05 percent but lower the deposit facility rate for banks from -0.2 percent to -0.3 percent.

The ECB cited the persistently low level of inflation as one of the critical reasons why these monetary policy measures were required. Inflation in the eurozone had actually reached 0.3 percent in May, ending a period of many months in which the rate had been 0 percent or even slightly lower. Finally, the EU's statistical office Eurostat published an inflation rate of 0.2 percent for the month of December 2015.

One of the significant factors causing the low rate of inflation was the price of oil, which had fallen sharply since 2014. The core rate of inflation, which excludes energy and food, was 0.9 percent in December 2015.

The ECB is maintaining its policy of strengthening economic growth by transferring liquidity to the eurozone banks, the aim of which is to encourage the banks to commit to a greater level of lending. However, another factor that needs to be taken into account is that the eurozone banks are themselves under an obligation to improve their capital adequacy and liquidity position as a consequence of tighter regulatory requirements following the introduction of Basel III.

Furthermore, the volume of eurozone banks' corporate customer lending portfolios remained more or less unchanged between the end of December 2014 and the end of December 2015. Although the previously noticeable contraction in lending volume has therefore been halted, there is little likelihood that businesses will commit to any sharp increase in capital investment financed by borrowing because of the current level of production capacity utilization.

The reasons behind this situation are probably the geopolitical crises and uncertainties coupled with the current global economic growth, which is only at a moderate level, particularly in emerging markets. In turn, the position in emerging markets is without doubt primarily also attributable to the economic slowdown in China, which has been in evidence since the summer of 2015 and has been the consequence of a sharper focus in China on the service sector – a shift never previously carried out on this scale by a planned economy. In addition to the contraction in import growth in China, another significant factor underlying the economic slowdown in emerging markets in general has been the fall in global market prices for energy and commodity exports.

At the same time, it is important to note in this regard that low energy prices are not only boosting consumer spending, currently one of the main drivers of economic growth in the eurozone, but are also having a positive impact on a large number of businesses because the fall in prices is reducing costs.

Given the limited impact on the real economy from the ECB's monetary policy measures, an improvement in structural conditions therefore remains the best possible route by which a range of eurozone countries could escape the high level of indebtedness we referred to at the beginning.

Although the expansion of the ECB measures – which benefit the financial markets first and foremost – will improve funding terms and conditions for the countries of the eurozone, it will properly not prevent sovereign debt in these countries from remaining at a high level.

In most cases, the major German banks managed to generate year-on-year increases in operating income in the year under review despite a challenging market environment. Without exception, allowances for losses on loans and advances recognized by banks were lower than in 2014. The administrative expenses of all the large banks increased, particularly in view of the enhanced regulatory requirements.

3. FINANCIAL PERFORMANCE

3.1. FINANCIAL PERFORMANCE AT A GLANCE

DZ BANK successfully consolidated its position in the reporting year in challenging market conditions influenced primarily by the extremely low level of interest rates.

FIG. 1 – INCOME STATEMENT

€ million	2015	2014	Change (%)
Net interest income[1]	**1,188**	850	39.8
Net fee and commission income	**288**	276	4.3
Net trading income	**233**	380	-38.7
of which: amounts added to reserves required by section 340g HGB	0	-41	-100.0
Administrative expenses	**-1,078**	-943	14.3
Staff expenses	-500	-495	1.0
Other administrative expenses[2]	-578	-448	29.0
Other net operating income/expense	**-117**	10	>100.0
Operating profit before allowances for losses on loans and advances	**514**	573	-10.3
Allowances for losses on loans and advances	**46**	-55	>100.0
Operating profit	**560**	518	8.1
Other net income/expense[3]	**1**	-160	>100.0
of which: reversal of reserves required by section 340g HGB	565	0	100.0
Profit before taxes	561	358	56.7
Income taxes	**-337**	-145	>100.0
Net income for the year	**224**	213	5.2

1 Including current income and income from profit-transfer agreements.
2 Other administrative expenses, and amortization and write-downs on intangible assets, and depreciation and write-downs on property, plant and equipment.
3 Gains and losses on investments, extraordinary income/expense, and other items.

The year-on-year changes in the key figures that made up the operating profit generated by DZ BANK in 2015 were as described below.

Operating income amounted to €1,592 million, a year-on-year rise of €76 million (2014: €1,516 million). It is made up of net interest income, net fee and commission income, net trading income, and other net operating income/expenses.

Administrative expenses increased by €135 million or 14.3 percent to €1,078 million (2014: €943 million).

The **cost/income ratio** for 2015 was 67.7 percent (2014: 62.2 percent).

Operating profit before allowances for losses on loans and advances declined by €59 million to €514 million (2014: €573 million).

Allowances for losses on loans and advances amounted to net reversals of €46 million compared with allowances for losses on loans and advances of €55 million in 2014.

The **operating profit** amounted to €560 million (2014: €518 million), a year-on-year rise of €42 million.

The details on the financial performance of DZ BANK set out above and below (section 3.2.) include the following variances compared with the information provided in the outlook in chapter V. of the 2014 management report).

The operating profit before allowances for losses on loans and advances achieved in the reporting year was approximately €60 million higher than the forecast for 2015. The reasons for this variance were income from long-term equity investments that was significantly higher than anticipated, largely as a result of the unexpected distribution by EURO Kartensysteme GmbH, Frankfurt am Main, (EKS) due to the income received by EKS for the sale of its MasterCard shares, and higher-than-predicted income from long-term equity investments in individual subsidiaries, particularly Union Asset Management Holding, whose net new business expanded considerably. By contrast, net trading income was less than forecast due to market conditions and a marked fall in the contribution from trading income. Other net operating income was also below the budgeted figure, with a substantial increase in expenses for occupational pension provision resulting from persistently low interest rates.

In view of the stable economic conditions in Germany, a much smaller addition to allowances for losses on loans and advances was needed in 2015 than had originally been anticipated. The unplanned expense relating to write-downs, particularly on the carrying amounts of the long-term equity investments held directly by DZ BANK in DZ PRIVATBANK S.A. (write-down of €274 million) and in Bausparkasse Schwäbisch Hall (write-down of €232 million), was offset by income from reversing an amount of €565 million from the reserve pursuant to section 340g HGB, which had also not been included in the planning. Operating profit after allowances for losses on loans and advances was thus much higher than planned, resulting in a profit before taxes that exceeded the figure budgeted for 2015 by €320 million.

3.2. FINANCIAL PERFORMANCE IN DETAIL

The individual changes in earnings performance for DZ BANK in 2015 are described in detail below.

Net interest income advanced by 39.8 percent to €1,188 million (2014: €850 million).

Net interest income from operating business (excluding income from long-term equity investments) grew by 18.9 percent to €427 million (2014: €359 million).

It should be noted that premiums and discounts on the fixed-income long-term securities have been recognized in accordance with the effective interest method since 2014 in view of the permanently low level of interest rates. Previously, premiums were recognized using the internal linear repayment value method. The change in the method of recognition had resulted in additional interest expense of €93 million attributable to previous reporting periods in 2014.

In addition, where non-trading currency swaps were used to hedge interest-bearing balance sheet items, the swap income and expenses were treated as interest income and expense in the reporting year reflecting the nature of the income and expense involved. This resulted in interest income of €114 million in 2015. In 2014, these income and expense components had been recognized under net trading income.

In addition, net interest income from lending and money market business declined by €54 million compared with 2014, largely as a result of the lower net interest margin contribution in the Corporate Banking strategic business line (down by €15 million) and a fall in the net interest margin contribution from group finance (down by €13 million). Income from long-term securities also went down compared with the previous year, decreasing by €28 million. Moreover, other net interest income declined by €22 million due to lower early redemption payments.

In the detailed descriptions, the financial performance of the strategic business lines is presented on the basis of the net income values used by financial planning and control for business management purposes.

The Corporate Banking strategic business line comprises four regional corporate customer divisions and the Structured Finance division. Corporate banking is focused on supporting German companies plus foreign companies with links to Germany. These corporate customers are provided with comprehensive customer relationship management either in conjunction with the local cooperative banks or directly by DZ BANK, depending on the size of the company concerned.

Overall, the net interest margin contribution in the Corporate Banking strategic business line came to €269.9 million, which was 5.2 percent down on the figure for 2014 of €284.7 million. Against this decrease, there was an increase in the contribution from trading on customer account arising from cross-selling activities.

This change was attributable to growing competition in corporate banking, the resulting pressure on margins, and, above all, to the level of demand for corporate loans, which remained muted.

Given production capacity utilization at almost average levels and less-than-buoyant export demand, businesses remained unenthusiastic about capital investment in the reporting year despite historically low interest rates and the stable domestic economy. This unwillingness to invest was also fueled, in particular, by the slowdown in economic growth in China as well as by ongoing geopolitical risks. A further factor was that many businesses were continuing to perform well in terms of income and liquidity and thus able to fund their capital spending from their own resources.

The main year-on-year changes in the net interest margin contribution from each of the product fields in the Structured Finance division are described below.

In the development lending/agribusiness product field, the net interest margin contribution saw a slight decline, largely margin-related, to €50.7 million, equating to a decrease of 0.9 percent compared with the 2014 figure of €51.1 million.

In development lending, the new business processed on behalf of the cooperative banks expanded year on year. One of the areas in which development lending was focused was again energy-efficient new building and renovations in the privately owned housing sector. The year under review also saw an encouraging trend in commercial development lending.

In the syndicated business/renewable energies product field, net interest margin contribution rose significantly in 2015 by 11.8 percent to €20.1 million (2014: €18.0 million) because DZ BANK is well positioned in the market for finance connected with renewable energies.

In the acquisition finance business, the division arranges and structures debt finance to support the acquisition of large and medium-sized companies, primarily in the German-speaking countries. Large numbers of customers continued to make use of the high degree of liquidity in bond markets to redeem their loans. This and the selective granting of new lending, especially outside Germany, led to a reduction in the size of the portfolio. The net interest margin contribution amounted to €24.0 million, 17.2 percent lower than the prior-year figure of €28.9 million.

The emphasis in the international trade and export finance business was very much on providing support for German large and medium-sized corporate customers involved in international business. The net interest margin contribution advanced slightly from €34.0 million in 2014 to €34.7 million in the reporting year, an increase of 1.9 percent.

The net interest margin contribution from project finance business amounted to €24.4 million, an increase of 4.6 percent on the equivalent figure in 2014 of €23.3 million.

The asset securitization product field comprises structured investments and receivables financing for a defined selection of asset types. This gives unlisted companies access to the capital markets and to finance based on their portfolio of receivables. The liquidity costs in the asset securitization product field for the provision of the backup lines in connection with the financing made available by the conduit came to €4.0 million in the reporting year, €0.4 million higher than the equivalent figure in 2014 of €3.6 million.

DZ BANK's reported income from long-term equity investments went up by 55.0 percent to €761 million (2014: €491 million). The year-on-year change was predominantly attributable to a distribution by EKS of €134 million as well as to higher income from the long-term equity investments in Union Asset Management Holding and the income from long-term equity investments collected through VR GbR, Frankfurt am Main, which were up by a total of €86 million, and higher income from the long-term equity investments in DG HYP (up by €60 million), R+V Versicherung (up by €37 million), and TeamBank (up by €38 million). These amounts were partly offset by decreases in the income from the long-term equity investments in Bausparkasse Schwäbisch Hall (down by €42 million), DZ PRIVATBANK S.A. (down by €32 million), and DVB Bank (down by €24 million).

Net fee and commission income at DZ BANK rose by 4.3 percent to €288 million (2014: €276 million).

In the Corporate Banking strategic business line, the service contribution in 2015 of €146.0 million equated to a slight decrease of 3.4 percent compared with the corresponding 2014 figure of €151.1 million.

The main year-on-year changes in the service contribution from each of the product fields in the Structured Finance division are described below.

In the syndicated business/renewable energies product field, the service contribution went down from €6.4 million in 2014 to €3.8 million in 2015. This decrease of 39.9 percent was attributable to a drop in the service contributions in both the syndicated business and the renewable energies segment.

A rising level of competition is apparent in the acquisition finance business, where foreign banks and debt funds are increasingly forcing their way into the German market. The service contribution therefore declined markedly from €20.6 million in 2014 to €11.5 million in the reporting year (a decrease of 44.2 percent).

The service contribution in the international trade and export finance business contracted by 18.9 percent to €11.3 million (2014: €13.9 million) as a consequence of fiercer competition.

In the international documentary business, the service contribution amounted to €12.8 million, a substantial gain of 21.7 percent on the equivalent prior-year figure of €10.5 million, primarily derived from growth in the guarantee business.

In the project finance business, the service contribution shrank by 15.6 percent to €9.6 million (2014: €11.4 million).

The asset securitization product field comprises structured investments and receivables financing for defined asset types. The service contribution of €52.5 million in 2015 represented an increase of 40.0 percent compared with the 2014 figure of €37.5 million. The rise was attributable to a number of factors, notably changes in the exchange rate between the euro and US dollar and higher structuring income.

In the Capital Markets Institutional Clients and Capital Markets Retail divisions, the comprehensive range of shares and advice available in relation to capital-generating products again proved popular with customers of the cooperative banks and direct customers of DZ BANK in 2015, and customers drew on these services frequently. DZ BANK repeatedly managed to prevail against German and international competitors, despite the fiercely contested market environment. The satisfaction of customers is testimony to the high level of product expertise at DZ BANK in a constantly changing market. The cooperative banks and direct customers also value the transaction security offered by DZ BANK in connection with the execution of such capital transactions.

The service contribution generated by the Operations/Services division in 2015 was also significantly higher than the equivalent figure reported for 2014 as a result of a rise in the income from securities custody business.

Net trading income amounted to €233 million in 2015 (2014: €380 million).

The contribution from trading income decreased as a result of the widening spreads, primarily in connection with bank bonds. At the same time, this decrease was almost fully offset by an increase in the contribution from trading on customer account.

In addition, where non-trading currency swaps were used to hedge interest-bearing balance sheet items, the swap income and expenses were treated as interest income and expense in the reporting year, reflecting the nature of the income and expense involved. In 2014, the realized non-trading swap positions had been recognized under net trading income.

Under liabilities recognized at fair value, there was a loss of €28 million in the year under review (2014: gain of €31 million).

In addition, net trading income in 2015 was affected by the net figure for realized and unrealized gains and losses relating to asset-backed securities (ABSs), which amounted to a loss of €9 million (2014: gain of €22 million).

In 2015, it was not necessary to add to the fund for general banking risks pursuant to section 340g HGB in conjunction with section 340e HGB (2014: addition of €41 million).

The products and services of DZ BANK's customer-oriented capital markets business are geared to the needs of the cooperative banks, specialized service providers within the cooperative sector, and their retail and corporate customers. In addition, DZ BANK has business relationships with direct corporate customers and institutional customers in Germany and abroad. The portfolio comprises competitively priced investment and risk management products involving the asset classes of interest rates, equities, loans, and foreign exchange. These products are complemented by a broad range of advisory and research services, structuring expertise, and platforms.

Trends in capital markets in the year under review were shaped by the ECB's policy of quantitative easing and its decision to maintain the historically low benchmark rate and the negative interest rate for central bank deposits previously decided upon in September 2014. These factors led to a further year-on-year increase in the average level of prices on equity markets. The regulatory environment also had an impact on markets and market players in the reporting year.

We once again improved our market position in the structured products business for retail investors. Measured on the basis of outstanding volume, we are now the market leaders with a market share of 16.4 percent as at December 31, 2015 (December 31, 2014: 15.5 percent). In the case of flow products, the continually issued structures for independent retail investors, we lifted our market share from 8.1 percent in December 2014 to 10.2 percent in December 2015 and now occupy the number three spot in the overall market. However, we were unable to escape the tough market and exchange conditions, with the result that sales of structured products for retail investors slipped from €4.2 billion to €3.8 billion.

In order to stabilize their financial performance over the long term, the cooperative banks acquired investments with residual maturities of more than 5 years, particularly corporate bonds and simply structured credit-linked products, as part of their own-account investing activities. At the same time, the cooperative banks aimed for broad diversification in their securities portfolios. The focus here was on fund products from the Union Investment Group.

In order to improve their liquidity coverage ratio (LCR), the banks also stepped up their investment, especially in the third quarter of 2015, in securities eligible as Level 1 or Level 2 assets in the LCR calculation. Further action to improve the LCR on the liabilities side of the balance sheet included the replacement of funding repayable on demand with funding based on longer maturities.

In the capital markets business with institutional customers, investor demand was concentrated on corporate, subordinated, and high-yield bonds. Real estate, infrastructure, and equities were further asset classes attracting investor attention. Given greater customer interest in hedging instruments, the market volume of exchange-traded derivatives rose markedly year on year.

In corporate customer securities business, there was a rise in the demand from institutional investors for interest-rate hedges, especially in project business (real estate and structured finance), driven by the heightened market volatility from the second quarter of 2015 onward. These investors focused primarily on long-term interest-rate hedges. The deposit-taking business suffered as a result of falling interest rates.

The fall in the value of the euro, coupled with the generally high level of market volatility, resulted in an increase in trading volumes in the management of currencies for corporate and institutional customers.

Against the backdrop of the historically low interest rates, the corporate customers of the cooperative banks increasingly turned to interest-rate hedges using sound and valuable pools of receivables as collateral. In particular, companies with a longer planning horizon were aiming to enter into interest-rate hedges with maturities of 10 to 30 years.

New bond issuance business was dominated by the ECB's extensive program of bond buying, which began in March 2015, and its impact on the primary and secondary markets. The business in the first half of 2015 was also impacted by other factors, notably market uncertainty resulting from the ongoing crisis in Greece. In these challenging conditions, DZ BANK's primary bond markets business performed well overall and domestic business was brisk. Domestic business benefited both from DZ BANK's strong presence in the major industrial customers market and from the high level of issuing activity among cooperative issuers.

Administrative expenses at DZ BANK amounted to €1,078 million, an increase of €135 million or 14.3 percent on the comparable figure in 2014 (€943 million).

Other administrative expenses went up by €130 million to €578 million (2014: €448 million), mainly because of higher project costs as a result of the larger project portfolio. This line item includes expenses of €30 million for the bank levy (2014: €3 million).

The rise in staff expenses of €5 million to €500 million (2014: €495 million) was mostly attributable to growth in the number of employees and salary increases.

Other net operating income and expenses at DZ BANK amounted to expenses of €117 million in 2015 (2014: income of €10 million).

Within this amount, there was a gain of €45 million (2014: €35 million) from the reversal of provisions and a net expense of €132 million (2014: expense of €13 million) resulting from the measurement of the occupational pension plan.

The figure for the measurement of the occupational pension plan included the interest cost of €118 million reported in 2015 (2014: €76 million) in connection with the valuation of pension obligations. It also included interest income earned from plan assets in 2015 of €19 million (2014: €21 million), impairment charges of €32 million (2014: reversal of impairment charges of €40 million) in respect of plan assets recognized at fair value, and a price loss recognized on plan assets of €1 million (2014: price gain of €2 million).

Allowances for losses on loans and advances amounted to net reversals of €46 million in 2015, compared with allowances for losses on loans and advances of €55 million in 2014.

In 2015, the specific loan loss allowances recognized for DZ BANK came to a net reversal of €44 million (2014: net addition of €28 million). The specific loan loss allowances recognized – particularly in corporate banking – were offset by reversals resulting from the continued success of efforts to aid the recovery of non-performing loans and receipts from loans and advances previously impaired. Overall, the net specific loan loss allowances, which also benefited from the stable economic environment, reflect the stability of the credit portfolio and DZ BANK's sustainable risk policy. Under portfolio loan loss allowances, there was a net addition of €9 million (2014: net reversal of €39 million).

Further detailed disclosures regarding the risk situation at DZ BANK can be found in this management report in chapter VI. (Combined opportunity and risk report).

In the year under review, DZ BANK's **other net income and expense** amounted to income of €1 million (2014: expense of €160 million).

Within this figure, losses on investments of €491 million (2014: gains of €50 million) included both losses from long-term equity investments of €496 million (2014: gains of €7 million) and gains on long-term securities totaling €5 million (2014: gains of €43 million).

The losses from long-term equity investments in the reporting year included, in particular, write-downs of €274 million and €232 million respectively on the carrying amounts of DZ BANK's direct long-term equity investments in DZ PRIVATBANK S.A. and Bausparkasse Schwäbisch Hall. This write-down on the carrying amount for DZ PRIVATBANK S.A. resulted from the difficult market conditions and interest-rate environment, while the carrying amount for Bausparkasse Schwäbisch Hall had to be written down owing to the persistently low level of interest rates. Furthermore, losses from long-term equity investments included a write-down of €40 million on the carrying amount of the direct investment held by DZ BANK in VR-LEASING AG and a write-down of €17 million (2014: write-down of €24 million) on the direct investment in DZ FINANCE Ireland Ltd., Dublin, (DZ FINANCE Ireland). The need to write down the carrying amounts for VR-LEASING AG and DZ FINANCE Ireland arose from the additional expenses arising on the planned sale of the Hungarian subsidiary Lombard Lízing and the DZ BANK Supervisory Board's resolution on May 28, 2015 to cease business operations in the Irish subsidiary and to close it by March 31, 2016. At the same time, a gain of €65 million on the disposal of DZ BANK's long-term equity investment in VISA Inc., San Francisco, was recognized.

The gains from long-term equity investments in the previous year had also included, in particular, a gain of €23 million from the disposal of NATIXIS shares and the reversal of a write-down of €17 million on the carrying amount of DZ BANK's long-term equity investment in DG HYP.

The net gain on long-term securities included gains on the ABS portfolio of €18 million (2014: €8 million) and a loss of €23 million in connection with the sale of Italian bonds.

The expense in respect of the transfer of losses in 2015 amounted to €60 million (2014: €236 million). It was largely attributable to an expense of €43 million resulting from the transfer of losses from VR-LEASING AG (2014: €61 million) and an expense of €10 million resulting from the transfer of losses from GENO Broker GmbH, Frankfurt am Main.

In 2014, the expense in respect of the transfer of losses had also resulted from an expense of €130 million relating to DZ Beteiligungsgesellschaft mbH Nr. 11, Frankfurt am Main, that had been caused by further charges in connection with the long-term equity investment in Volksbank Romania S.A., Bucharest, ahead of the sale of this bank in 2015. An additional €40 million of expenses from the transfer of losses had related to DZ Beteiligungsgesellschaft mbH Nr. 18, Frankfurt am Main, which had recognized write-downs in respect of the carrying amounts of the equity investments in GAF Active Life 1 Renditebeteiligungs-GmbH & Co. KG, Nidderau, and GAF Active Life 2 Renditebeteiligungs-GmbH & Co. KG, Nidderau.

In 2015, the extraordinary result amounted to an expense of €13 million (2014: income of €26 million) and included an expense of €9 million resulting from the restructuring of DZ BANK's business activities in Poland (2014: €11 million) and consultancy costs of €4 million in connection with the planned merger of DZ BANK with WGZ BANK.

In 2014, the extraordinary result had also included, in particular, proceeds of €30 million from the merger of AGAB Aktiengesellschaft für Anlagen und Beteiligungen, Frankfurt am Main, with DZ BANK.

In 2015, an amount of €565 million was reversed from the reserves pursuant to section 340g HGB (2014: no reversal, no addition). The income from the reversal was used to offset the expense from write-downs on long-term equity investments and deferred taxes.

Profit before taxes amounted to €561 million (2014: €358 million).

The **tax expense** for the year under review of €337 million (2014: €145 million) includes a deferred tax expense of €328 million (2014: €144 million), which was largely attributable to the deterioration in profit expected for DZ BANK in Germany, income from group tax levies of €201 million (2014: €175 million), and a tax expense of €210 million (2014: €176 million).

Net income for the year came to €224 million (2014: €213 million).

As a result of the net income for the year of €224 million, DZ BANK will propose a dividend of €0.16 per share to the Annual General Meeting. This would equate to a total distribution of €224 million.

3.3. NUMBER OF BRANCHES

As at December 31, 2015, DZ BANK had 4 German branches in Berlin, Hanover, Stuttgart, and Munich as well as 4 international branches situated in London, New York, Hong Kong, and Singapore. The branch in Poland was closed with effect from December 31, 2015.

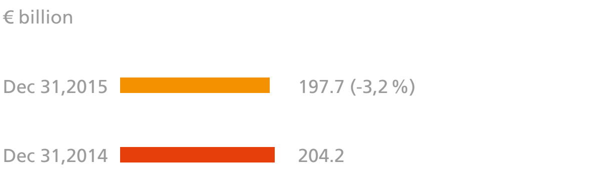
The Hanover and Munich branches oversee two sub-offices in Hamburg and Nuremberg.

4. NET ASSETS

As at December 31, 2015, DZ BANK's **total assets** had decreased by €6.5 billion to €197.7 billion (December 31, 2014: €204.2 billion), a decline of 3.2 percent.

DZ BANK's international branches accounted for €33.2 billion or around 16.8 percent of the total assets of DZ BANK as at December 31, 2015. New York (€18.1 billion) and London (€10.8 billion) together accounted for around 87.0 percent of the €33.2 billion. The remaining €4.3 billion was attributable to the branches in Singapore (€2.8 billion) and Hong Kong (€1.5 billion).

FIG. 2 – TOTAL ASSETS



The **return on assets**, which was calculated by dividing the net income for the year after taxes by the total assets at December 31, 2015, was 0.1 percent.

As at December 31, 2015, the **volume of business** amounted to €220.5 billion (December 31, 2014: €226.8 billion). This figure comprises total equity and liabilities, contingent liabilities, and other DZ BANK obligations.

The derivatives recognized at fair value of €854.9 billion (December 31, 2014: €791.1 billion) and **the derivatives not recognized at fair value** of €53.2 billion (December 31, 2014: €35.8 billion) came to a notional amount of €908.1 billion as at December 31, 2015 (December 31, 2014: €826.9 billion). Of this total amount, €24.4 billion was accounted for by positive fair values (December 31, 2014: €28.9 billion).

Loans and advances to banks had risen by €0.6 billion to €81.3 billion as at December 31, 2015, compared with €80.7 billion as at December 31, 2014. Loans and advances to affiliated banks had increased by €3.1 billion or 6.3 percent to €52.4 billion. Loans and advances to other banks had decreased by €2.5 billion or 8.0 percent to €28.9 billion.

Loans and advances to customers had gone up by €0.2 billion to €22.6 billion as at December 31, 2015 (December 31, 2014: €22.4 billion). Within this amount, promissory notes had increased by €0.5 billion, whereas fixed-term deposits had declined by €0.3 billion.

As at December 31, 2015, the value of **bonds, shares, and other securities** had fallen by €0.5 billion year on year to €39.4 billion (December 31, 2014: €39.9 billion). This change was attributable almost exclusively to holdings of bonds, the value of which amounted to €39.3 billion as at December 31, 2015 (December 31, 2014: €39.8 billion). The value of shares and other variable-yield securities was unchanged year on year at €0.1 billion (December 31, 2014: €0.1 billion).

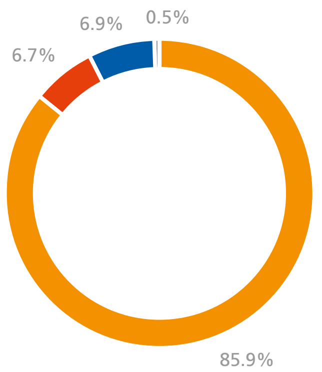
The **trading assets** line item was €39.2 billion as at December 31, 2015, a drop of €6.3 billion compared with December 31, 2014 (€45.5 billion). This was mainly the result of a decrease of €6.5 billion for derivatives. Moreover, a reduction of €1.9 billion for bonds was offset by an increase of €1.8 billion for repurchase agreements.

Long-term equity investments and shares in affiliated companies decreased to €9.9 billion (December 31, 2014: €10.8 billion), above all due to the write-down of €274 million on the carrying amount of DZ BANK's direct long-term equity investment in DZ PRIVATBANK S.A. and the write-down of €232 million on the direct long-term equity investment in Bausparkasse Schwäbisch Hall.

Deposits from banks had grown by €6.1 billion to €91.5 billion as at December 31, 2015 (December 31, 2014: €85.4 billion). Deposits from affiliated banks had advanced by €6.8 billion, or 21.1 percent, to €39.0 billion. Deposits from other banks had gone down by €0.7 billion, or 1.3 percent, to €52.5 billion.

Deposits from customers as at December 31, 2015 had decreased by €4.9 billion year on year to €18.0 billion (December 31, 2014: €22.9 billion). This change was

FIG. 3 – SHAREHOLDERS AS AT DECEMBER 31, 2015



Total subscribed capital: €3,646 million

- Local cooperative banks*: €3,132 million
- WGZ BANK AG Westdeutsche Genossenschafts-Zentralbank*: €243 million
- Other cooperative enterprises: €251 million
- Other: €20 million

* Directly and indirectly.

predominantly attributable to a reduction in fixed-term deposits (down by €4.7 billion), promissory notes (down by €1.2 billion), and registered bonds (down by €0.6 billion). These were partially offset by an increase of €1.7 million in current account credit balances.

Debt certificates issued including bonds were virtually unchanged year on year at €39.0 billion (December 31, 2014: €39.0 billion). The €6.2 billion increase in holdings of commercial paper was entirely offset by a decrease in the portfolio of bonds (excluding domestic commercial paper).

The **trading liabilities** line item stood at €29.2 billion as at December 31, 2015, a year-on-year reduction of €7.8 billion (December 31, 2014: €37.0 billion) that was in line with the change in trading assets. The derivatives categorized as trading liabilities had contracted by €4.0 billion, while repurchase agreements had fallen by €3.8 billion compared with the end of 2014.

Subordinated liabilities had risen by €0.3 billion to €5.6 billion as at December 31, 2015 (December 31, 2014: €5.3 billion). This change included not only the expiry of subordinated liabilities but also the issuance of Tier 1 bearer bonds (AT1 bonds) on November 11, 2015 with a total nominal value of €750 million in order to strengthen regulatory Tier 1 capital. Virtually all of the AT1 bonds were placed within the cooperative financial network.

The **fund for general banking risks** in accordance with section 340g HGB amounted to €3,685 million as at December 31, 2015 (December 31, 2014: €4,250 million).

The **equity** of €8.0 billion reported on the balance sheet as at December 31, 2015 was at the same level as twelve months earlier (December 31, 2014: €8.0 billion).

DZ BANK's capital situation is described in this management report in chapter VI. (Combined opportunity and risk report), section 7. (Capital adequacy).

5. FINANCIAL POSITION

Liquidity management for the entities in the Bank sector is carried out by Group Treasury at DZ BANK and by the individual subsidiaries. The individual entities are provided with funding by DZ BANK (group funding) or the entities exchange cash among themselves via DZ BANK (group clearing). Liquidity is managed within DZ BANK by head office treasury in Frankfurt and by treasuries in its international branches, although Frankfurt has primary responsibility.

In the context of **liquidity management**, DZ BANK distinguishes between operational liquidity (liquidity in the maturity band of up to one year) and structural liquidity (liquidity in the maturity band of more than one year). Dedicated steering committees have been established for both types of liquidity.

DZ BANK has a highly diversified funding base for **operational liquidity**. A considerable portion is accounted for by money market activities resulting from the cash-pooling function with the local cooperative banks. This enables local cooperative banks with available liquidity to invest it with DZ BANK, while primary banks requiring liquidity can obtain it from DZ BANK. Traditionally, this results in a liquidity surplus, which provides the main basis for short-term funding in the unsecured money markets. Corporate customers and institutional clients are another important source of funding for operational liquidity requirements. DZ BANK therefore has a comfortable level of liquidity at its disposal. Funding on the interbank market is not strategically important to DZ BANK.

DZ BANK issues money market products based on debt certificates through its branches in Frankfurt, New York, Hong Kong, and London.

Money market funding also includes collateralized money market activities, which DZ BANK has centralized in Group Treasury and which form the basis for broadly diversified funding on money markets. To this end, Group Treasury has a portfolio of securities eligible for central bank borrowing (collateral pool). These securities can be used as collateral in monetary policy funding transactions with central banks, in bilateral repos, or in the tri-party repo market.

Structural liquidity activities are used to manage and satisfy the long-term funding requirements (more than 1 year) of DZ BANK.

Structural liquidity is measured daily on the basis of total liquidity flows. The long-term ratio is also used to support the management of structural liquidity. This key figure is also determined on a daily basis. It quantifies the ratio of sources of funds to application of funds with a residual maturity of more than one year on a cash flow basis.

DZ BANK's **long-term ratio** as at December 31, 2015 was 89 percent (December 31, 2014: 91 percent). This meant that the items tying up liquidity with residual maturities of over one year were largely funded by liabilities that also had residual maturities of more than one year.

DZ BANK secures its long-term funding for structural liquidity by using structured and non-structured capital market products that are mainly marketed through the local cooperative banks' own-account and customer-account securities business and to institutional clients. DZ BANK also has the option of obtaining liquidity through covered issues known as DZ BANK BRIEFE. In this case, the funding is primarily obtained from institutional investors.

Long-term funding requirements in foreign currencies are covered through the basis swap market, ensuring matching maturities.

Group Treasury at DZ BANK carries out groupwide **liquidity planning** annually. This involves determining the funding requirements of the DZ BANK Group and DZ BANK for the next financial year on the basis of the coordinated business plans of the individual companies. Liquidity planning is updated throughout the year.

Monthly **structural analyses** of the various resources available on the liabilities side of DZ BANK's balance sheet are also conducted. The purpose of these analyses is to provide senior management with information that can then be used as the basis for actively managing the liability profile.

To complement the description of the funding structure, further information on **liquidity risk** can be found in this management report in chapter VI. (Combined opportunity and risk report), section 6. (Liquidity adequacy).

III. Events after the balance sheet date

There were no events of particular importance after the end of the financial year.

IV. Human resources report and sustainability

1. HUMAN RESOURCES REPORT

1.1. DECLARATION ON CORPORATE GOVERNANCE

Using the options available to it, DZ BANK promotes the appointment of suitably qualified women to managerial positions at the bank.

EQUAL PARTICIPATION OF WOMEN AND MEN IN MANAGERIAL POSITIONS

The proportion of women as at December 31, 2015 was as follows, providing the basis for the targets:

Supervisory Board	20 percent
Board of Managing Directors	0 percent
First-level management	0 percent
Second-level management	16.8 percent.

In June 2015, the Board of Managing Directors examined in detail how to implement the German Act on the Equal Participation of Women and Men in Managerial Positions in the Private and Public Sectors (FührposGleichberG) at DZ BANK, setting the following targets:

Target for first-level management 5 percent
Target for second-level management 19 percent.

The targets apply to the period up and to and including June 30, 2017. Irrespective of the statutory requirements, DZ BANK's aim is to further increase the proportion of women in managerial positions.

The Supervisory Board of DZ BANK set a target of '0' for the proportion of women on the Board of Managing Directors up to June 30, 2017.

In accordance with the stipulations of the KWG that came into force in 2014, the Supervisory Board adopted a strategy aimed at increasing the proportion of members who are women, as they are currently under-represented. The target was set at 15–20 percent. This was achieved in 2015 as the proportion was 20 percent.

1.2. LAUNCH OF 'VERBUND FIRST' CAREER DEVELOPMENT PROGRAM

The work carried out together in the joint TeamUp trainee program for the local cooperative banks gave rise to the idea of 'Verbund First', a new career development program for existing and prospective managers. The program began in 2014 with its first 10 participants. Networking among participants and dialog with the local cooperative banks form the focus of this program. This is one of the ways in which DZ BANK develops the capabilities of managerial talent in cooperative banks and directly helps to retain these managers in the cooperative financial network. The program's second group, consisting of 16 participants, is starting in April 2016 and the theme of the program this time will be digitization and innovation.

1.3. DZ BANK GROUP'S EMPLOYER BRANDING CAMPAIGN

The objective of the campaign is to attract and retain suitable employees, thereby safeguarding the future viability of the DZ BANK Group. The campaign and initial internal cross-organizational activities began in the fourth quarter of 2014 under the leadership of DZ BANK and involved the introduction of an internal communications and work platform known as the 'WIR platform'. The purpose of the platform is to facilitate networking and collaboration between DZ BANK Group employees and thereby establish the employer brand. The external campaign is to be launched in the first quarter of 2016 and includes the addition of a group jobs website to the platform.

1.4. PROFESSIONAL DEVELOPMENT

Fitting in well with the focus on cost awareness, 39 percent of the training required by all employees and managers was provided in 2015 through DZ BANK's inhouse professional development program, which covered 140 different topics. Bespoke, division-specific programs accounted for a further 29 percent. As in previous years, demand was strongest for courses in the area of banking and business studies, particularly those covering statutory and regulatory changes.

In addition to the external trainers, many internal specialists also contributed their valuable expertise to training courses on regulatory matters. There was a new series of information sessions and discussions entitled 'regulation made easy'. The aim was for employees familiar with this subject to provide colleagues with a basic understanding of regulatory matters that influence their direct field of work and to explain and discuss the background to the regulations from the perspective of DZ BANK and the DZ BANK Group. Inhouse trainers delivered around 213 of DZ BANK's seminars in 2015: 189 within the general professional development program and 24 as part of division-specific training activities. Targeted professional development seminars support employees in their day-to-day work and thereby make an important contribution to the success of the business. A total of 309 managers in Germany have now taken part in the bank-wide management training program, which was launched in 2008.

1.5. TRAINING AND DEVELOPMENT OF YOUNG TALENT

In 2015, 69 trainees (29 women and 40 men) began their professional career by joining various training programs at DZ BANK after completing their studies at school or university. Training and developing the next generation is regarded as a shared responsibility within the bank. The HR division establishes the necessary structures and monitors the trainees and the departmental coordinators, but the training itself is carried out within the individual departments. In 2015, 170 people took part in the first joint conference for trainees and mentors, the slogan of which was 'WIR: Innovativ in die Zukunft' (us: innovating for the future). The conference's theme was 'taking new paths' and not only provided a source of inspiration but also generated concrete ideas that will be incorporated into the planning for 2016.

DZ BANK encourages individual responsibility among the newcomers in order to prepare them as fully as possible for taking on suitable roles in the bank. Besides equipping trainees with specialist knowledge, the development programs focus on expanding their methodological, social, and personal skills. Two years ago, a job-shadowing assignment in another entity within the DZ BANK Group was added as a standard component of the trainee program. In 2015, 35 DZ BANK trainees undertook such assignments with a group entity and, in return, 18 trainees from other entities in the DZ BANK Group carried out job-shadowing assignments at DZ BANK. Job-shadowing assignments were also arranged within individual entities of the DZ BANK Group. The program will continue in 2016.

1.6. HEALTH MANAGEMENT

In 2015, DZ BANK provided a number of services aimed at promoting the health of employees, such as attractive sporting opportunities within the bank and anti-stress programs. The 'health day' was a chance for employees to attend various informative lectures and workshops on topics ranging from nutrition to stress management.

If employees face challenges or problems at work or at home, they can turn to the independent social counseling service, which was set up in 2007.

1.7. WORK AND FAMILY LIFE

One of the core objectives of DZ BANK's HR policy is to create a working environment that takes account of the changes to family structures and age demographics. With this in mind, the bank adopted a policy for flexible and family-friendly organization of working hours in 2015. The policy sets out binding rules and expectations regarding flexible working hours, which are based on the principle of give and take. DZ BANK supports parents and carers by offering flexible working hours, teleworking, and parent-and-child offices. The bank has contracted external service providers, some of which operate throughout Germany, to arrange or provide childcare for employees and to arrange or provide support for family members requiring care. For example, regular daycare places are available in kindergartens or with au pairs or carers. The arrangement service is free of charge for bank employees. A daycare center for DZ BANK employees' children is included in the new building being constructed as part of the expansion of the Frankfurt site and will be available from mid-2016.

The Hertie Foundation recognizes companies with family-friendly and life-stage-oriented HR policies by awarding the *auditberufundfamilie*® certificate, which has to be renewed every three years. The bank has held the certificate since 2007. It also signed the Charter for the Compatibility of Work and Care in Hessen in 2014, which was created as part of the Hessen-based Compatibility of Work and Care initiative. This initiative is backed by, among others, berufundfamilie gGmbH and the Hessen State Ministry of Social Affairs.

1.8. EMPLOYER AWARDS

DZ BANK received the following awards in 2015: Top German Employer (Top Employers Institute, since 2008), Candidate Experience Award (received for the first time in 2015), Career-enhancing & fair trainee program (Absolventa, since 2012), Trendence Student Survey/Germany's 100 Top Employers (ranked since 2008), and Universum Student Survey/Germany's most attractive employers for students (ranked since 2008).

FIG. 4 – EMPLOYEE DATA

Employees (average for the year, excluding trainees)	**2015**	2014
Total	**4,312**	**4,250**
Employees (as at December 31, including trainees)		
Total	**4,489**	**4,389**
Employees	4,342	4,256
Trainees	147	133
Germany	4,249	4,071
ROW	240	318
Male	2,608	2,527
Female	1,881	1,862
Total proportion of women (%)	41.9	42.4
Proportion of female managers (%)	19.2	18.5
Full-time	3,634	3,601
Part-time	855	788
Proportion of part-time (%)	19.0	18.0
Period of service (years)	14.1	13.8
Staff turnover (%)*	4.8	4.9
Professional development (Germany)		
Total professional development days	14,010	10,582
Professional development days per employee	3.4	2.6

* Staff turnover in 2015 excluding the Warsaw branch was 3.1 percent.

2. SUSTAINABILITY

2.1. COOPERATIVES: RESPONSIBILITY AS A CORPORATE OBJECTIVE

The philosophy of meeting commercial and social challenges together is the foundation on which the cooperatives are based and is a fundamental principle of sustainability.

The strong regional ties of the entities and their businesses, particularly in the cooperative banking sector, are hallmarks of the shared cooperative guiding principle and represent one of our defining strengths.

In 2014, the cooperative financial network further consolidated its position as Germany's largest business organization in terms of membership. Compared with the previous year, the number of members rose by 1 percent to 22 million.

DZ BANK is now one of the leading financial institutions in terms of sustainability. This is regularly confirmed by the sustainability rating received from the sustainability ratings agency oekom research AG, which has awarded its prime status for particularly sustainable companies to the DZ BANK Group since 2011.

In 2015, oekom research AG rated the DZ BANK Group as C+ for the first time. This further year-on-year improvement for DZ BANK was attributed to the new groupwide standards such as the code of conduct, climate targets, supplier standards, and other factors. Another reason was the successful integration of environmental and social aspects into project finance and asset management.

2.2. SUSTAINABILITY-RELATED PRODUCTS AND SERVICES

As one of the country's leading financial services providers, DZ BANK is playing a key role in funding the switch to renewable energy sources in Germany. The DZ BANK Group's range of products covering renewable energies extends from finance for energy-saving solutions in construction and renovation projects to support for small and medium-sized enterprises using wind power, biomass, or solar energy and finance for large-scale projects such as solar farms, as well as suitable insurance solutions.

Since the beginning of 2009, the renewable energies sector has been a strategic area of activity for DZ BANK. As well as traditional bank loans funded from our own liquidity, the arrangement of development loans is currently a key aspect of our activities. In the renewable energies sector, DZ BANK currently provides lending of €3.2 billion to fund the expansion of infrastructure and the development of new, more efficient technologies.

DZ BANK also offers other sustainability-related products and services, ranging from special investment certificates in the 'Anlage Zukunft' product line to sustainability research.

In addition to offering sustainability-related products and services, DZ BANK has also enhanced key processes so that they satisfy social and environmental criteria. On January 1, 2013, DZ BANK signed up to the Equator Principles, which provide a global standard for project finance. Since then, all project finance involving a total investment of more than US$ 10 million has been subject to an additional review in compliance with the requirements of the Equator Principles. DZ BANK's lending guidelines also include carrying out its own sustainability check, which is based on the principles of the UN Global Compact. Sectoral guidelines and the lending risk strategy also stipulate which activities cannot be funded due to their environmental or social risks. Since 2014, DZ BANK has also published fundamental rejection criteria used in lending decisions.

2.3. GROUP CORPORATE RESPONSIBILITY COMMITTEE

Since 2010, the entities in the DZ BANK Group have been pooling their activities to a much greater extent, focused on the common objectives of exploiting market opportunities, avoiding risk, and at the same time enhancing corporate citizenship.

In the reporting year, the entities set up a standing committee, the Group Corporate Responsibility Committee. The committee is made up of the sustainability coordinators and communications managers from the various entities and meets regularly. The Group Corporate Responsibility Committee reports to the Group Coordination Committee.

Outcomes from these activities have included, for example, the introduction of groupwide supplier standards, a common database structure, a joint climate strategy, and the joint signing of the UN Global Compact.

2.4. TRANSPARENCY IN SUSTAINABILITY ACTIVITIES

The reporting year saw the publication of DZ BANK's seventh sustainability report prepared in accordance with the international reporting standards under the Global Reporting Initiative (GRI):
www.sustainability.dzbank.com

IMPORTANT INFORMATION GLEANED FROM STAKEHOLDER SURVEY

To manage sustainability at DZ BANK as effectively as possible, we need the deepest possible understanding of our stakeholders' social, environmental, and economic interests, experiences, and expectations. In 2015, we conducted a groupwide online survey of our external and internal stakeholders for the first time, providing us with important information about our sustainability efforts.

In choosing which interest groups to survey, we took account of their diversity and their relevance to our entities. The following key points emerged: Among our most important stakeholders are the cooperative banks (because they are both our customers and our owners) along with the corporate customers, retail customers, and employees of the entities in the DZ BANK Group. Suppliers and service providers as well as trade associations and investors are highly relevant to us from a commercial perspective. We also listened to critical opinions from non-governmental organizations (NGOs) and rating agencies as well as from academia and politics.

The survey covered five areas of action, each broken down into various topics, and was based on analyses of the prevailing social sustainability trends. With a response rate of 46 percent, it provided valuable input for core areas of our work and reporting systems.

Our stakeholders' opinions again underlined the importance of strategically integrating sustainability into the core business of the entities in the DZ BANK Group in all areas of operations. The respondents assigned the greatest relevance to sustainable corporate management and to sustainable products and services. Within these areas, 'cooperative principles and values' and 'corporate strategy and success' attracted very high scores.

This means that the DZ BANK Group needs to continue to integrate the principle of sustainability that lies at the core of the cooperative model into its systems and to place it at the forefront of our business activities. It must also ensure that this ties in with the cooperative values so that it can live up to stakeholders' expectations regarding our sustainability. In addition, the DZ BANK Group will use the results of the survey as guidance when selecting the topics for future sustainability reporting.

V. Outlook

1. ECONOMIC CONDITIONS

1.1. GLOBAL ECONOMIC TRENDS

Economic growth in the industrialized countries remained steady over the course of 2015, despite geopolitical crises. By contrast, structural problems as well as macroeconomic and financial imbalances continued to weaken economic growth in some of the emerging markets, a trend exacerbated in many of these countries by the low price of oil.

Against this backdrop, there is only likely to be a slight rise in global economic growth in 2016 to approximately 3.4 percent compared with the rate of around 3.1 percent seen in 2015.

The volume of global trade is projected to grow at around 3.4 percent in the coming year, with expansion thus remaining below the long-standing average growth rate for another twelve months.

1.2. TRENDS IN THE USA

To the surprise of no one, the US Federal Reserve (Fed) announced a modest 0.25 percentage point hike in its key interest rates in December 2015, a watershed moment marking the end of the seven-year policy of zero interest rates. This move confirmed that the US economy was in good shape, an assessment supported by the sharp fall in unemployment, vigorous consumer spending, and yet another return to a very high level of house prices.

In 2016, the rise in employment is likely to be sustained, with the rate of unemployment falling below the 5 percent mark. Household consumption and capital spending will probably boost growth to a degree similar to that in 2015, driven by the positive economic climate and high level of consumer confidence, which remains undented. Forecasts estimate that economic growth will therefore come in at around 2 percent in 2016. The rate of inflation in the US is expected to be approximately 1.1 percent in 2016, influenced by the downward trend in the oil price.

1.3. TRENDS IN THE EUROZONE

In the eurozone, the past year has demonstrated the extent to which consumer spending is a key driver for GDP growth. There is also unlikely to be any significant change in this regard over the coming quarters as the situation in European labor markets slowly but surely continues to improve. As the outlook for the price of oil is still subdued for the next few months, households will probably continue to benefit from the lower prices for fuel and heating oil. Government consumption in the year to date has also proved to be more expansionary than in previous years. Economic surveys indicate that the recovery throughout the whole of the European Monetary Union (EMU) will be sustained in 2016.

Over the whole of 2015, energy prices were the critical factor within consumer prices that kept the inflation rate in the eurozone around the zero mark. The low oil price will continue to suppress the rate of inflation in 2016, with the result that the inflation rate in the EMU can be expected to fall to an average of -0.1 percent for the year.

1.4. TRENDS IN GERMANY

For Germany, 2015 was generally a good year from an economic perspective, although the influx of refugees represented the greatest challenge for federal, state, and local authorities in the last weeks of the year. The German economy is on a firm growth trajectory, thanks mainly to buoyant consumer demand. In previous recovery phases, it was mostly Germany's strength in exports that gave the economy the stimulus it needed, but at present it is down to robust domestic demand, bolstered by good conditions in the labor market and sharply rising real incomes. The record level of employment is the principal reason behind the dynamic uptrend in household consumer spending.

This strong domestic demand is expected to continue in 2016. A stable economic position in industrialized countries combined with continued recovery in the eurozone also forms the basis for a moderate upturn in exports.

The number of refugees entering Germany is likely to remain significant in 2016, leading to a hefty jump in government expenditure, boosting domestic demand at least in the short term, and having the same effect as a small fiscal stimulus package. The increased immigration will also add to the demand in the housing market, which is already under significant pressure, pushing up both rents and the volume of new builds still further in the coming year.

The extremely high number of vacant posts in the labor market is a sign that employment will continue to rise and that incomes will see another sharp rise in 2016. Growth in GDP is expected to be similar to that in 2015 at around 1.8 percent.

Prices in Germany will rise somewhat faster than the eurozone mean because capacity utilization in the German economy will be above average, driving up wages and costs. Nevertheless, the rate of inflation is still likely to remain subdued in 2016 at 0.3 percent.

1.5. TRENDS IN THE FINANCIAL SECTOR

Since the financial crisis, the financial sector has faced considerable pressure in terms of both adjustment and costs caused by the need to comply with regulatory reforms, involving greater capital requirements, new reporting obligations, and changes to regulatory systems.

Following the introduction of the new frameworks, the banks have reduced their gearing and significantly reinforced risk-bearing capacity by improving their capital adequacy. At the same time, new risks have arisen from the prolonged period of low interest rates, a consequence not least of the highly expansionary monetary policy pursued in the eurozone. This is impairing the financial performance of banks and insurance companies, and reducing their ability to accumulate capital. Furthermore, the longer the low interest rates persist, the greater the incentives to take on excessive risk.

A particularly perilous scenario for the financial system would arise in the future if a long period of low interest rates were followed by a rapid rise in these rates. Since January 2016, a further regulatory instrument has been available in the form of the counter-cyclical capital buffer, which enables regulators to limit systemic risk in periods of excessive lending by imposing additional capital requirements. It is a supplementary amount added to the required common equity Tier 1 capital of banks and is intended to be used in periods when a trend toward excessive lending emerges.

2. CHANGES IN FINANCIAL POSITION AND FINANCIAL PERFORMANCE

2.1. FINANCIAL PERFORMANCE

Despite prospects for moderate operating growth, the earnings position at DZ BANK is under pressure, primarily because of the persistently low interest rates, the low potential for the reversal of impairment losses on the assets side, the amount of capital investment required to maintain operations, innovate, and address regulatory requirements, and the need to pay the bank levy.

The smoldering sovereign debt crisis and financial policies introduced to resolve the problems could also lead to volatility on capital markets in 2016. Developments in foreign policy, especially in regions currently stricken by crisis, may also have a lasting adverse effect on the financial performance of DZ BANK in 2016.

Against this backdrop, **profit before taxes** is expected to be substantially lower in 2016 than in 2015.

Net interest income (excluding income from long-term equity investments) in 2016 is predicted to be slightly below the 2015 level. The main reasons for this are the expected fall in interest income from money market business and a lower level of group funding. It is anticipated that there will be a positive impact from the continued systematic implementation of the growth strategy in corporate banking.

Income from long-term equity investments will probably go down significantly in 2016. This is primarily because the expected special distribution from EKS will be lower in 2016 than in the previous year, but also because of anticipated sustained downward pressure on income in subsidiaries' business models dependent on the level of interest rates.

Based on a conservative estimate, slightly lower **net fee and commission income** is forecast for 2016. Developments in the customer business, both in Corporate Banking and Transaction Banking, will have a particularly positive impact. The figure for 2015 was influenced by exceptionally high custody fees.

Net trading income is likely to rise significantly in 2016. This assumption is based firstly on the expected improvement in the contribution from customer-driven trading in the capital markets business and secondly on the negative impact in 2015 of commercial-law requirements regarding the measurement of own issues.

The improvement in capital markets business is to be achieved by adhering strictly to the strategic objectives set for this business line, which above all include consolidating the local cooperative banks' leading position in the own-account investing market and enhancing the long-term profitability of business relationships with institutional customers despite a much more difficult market environment and increased regulatory challenges.

Moreover, the capital markets business for retail customers is predicted to generate growth in income from brokerage and structured products resulting from the market's greater awareness of DZ BANK as an expert in providing securities solutions and the further expansion of support services aimed at improving the skills of advisors in the local cooperative banks.

Net trading income could be adversely affected by, in particular, a further fall in interest rates and destabilization of the capital markets.

The negative figure reported under **other net operating income/expense** will deteriorate significantly in 2016 owing to higher expenses for pensions.

Administrative expenses are likely to rise in 2016 in view of the growing need for capital investment to maintain operations, innovate, and address regulatory requirements. In addition to strategy-related investment in corporate banking, administration expenses will above all be pushed up by the increase in employees needed to implement regulatory requirements and the necessary capital expenditure on innovation management and digitization.

In view of the rising administrative expenses, DZ BANK will redouble its efforts in pursuit of the strategic objective of improving the **cost/income ratio** over the long term by actively managing costs while expanding the operating business and making it more profitable.

Given the forecasts for economic trends, additions to **specific loan loss allowances** are expected to be higher in 2016 than in the previous year.

The additions to specific loan loss allowances in 2015 were more than offset by large reversals, which had a positive effect on allowances for losses on loans and advances. No reversals have been included in the planning for 2016.

A possible economic downturn combined with a flaring up of the sovereign debt crisis could have an adverse effect on allowances for losses on loans and advances.

In 2016, **net income/expense from other business** is not expected to be further adversely affected by write-downs on long-term equity investments and is therefore predicted to return to a normal level. Restructuring expenses in connection with the merger may have a negative impact.

The merger of DZ BANK and WGZ BANK, which is planned for 2016, is expected to create not only extensive synergies but also growth potential and earnings potential. It is also reasonable to assume that specific opportunities will be generated by the pooling of marketing activities and the broader offering in corporate banking and capital markets business, further details of which can be found in the opportunity and risk report. The challenge will be to bring these opportunities to fruition, particularly from 2017 onward.

In the medium term, i.e. from 2017 onward, the joint institution is expected to be able to make use of cost synergies in connection with adjustments to structures, processes, and infrastructure and to avoid duplication of capital expenditure.

The process of integration after the merger of DZ BANK and WGZ BANK may lead to a temporary increase in restructuring expenses in the next few financial years.

The associated implications for earnings are not included in this outlook because the data needed to assess the financial impact was not available at the time this report was prepared.

From 2016, there will also be transaction-related effects that will impact on the income statement but will only be possible to quantify later on as the merger project progresses.

2.2. LIQUIDITY

DZ BANK anticipates that the local cooperative banks will continue to hold stable levels of deposits in 2016, which will help with its management of operational liquidity. Corporate customers and institutional investors, both in Germany and abroad, will also continue to make a sustained contribution to the diversification of funding.

The structural funding of DZ BANK is expected to continue to be underpinned by stable sales of a wide variety of funding products as a result of the broad, well-established customer base.

VI. Combined opportunity and risk report

1. DISCLOSURE PRINCIPLES

The opportunity and risk report of the DZ BANK Group includes disclosures relating to DZ BANK. A separate opportunity and risk report is not prepared for DZ BANK. Unless presented elsewhere, the disclosures relating to the DZ BANK Group and the Bank sector also apply to DZ BANK.

By publishing the opportunity and risk report, DZ BANK, as the parent company in the DZ BANK Group, is implementing the transparency requirements for opportunities and risks applicable to the DZ BANK Group as specified in sections 37v and 37y of the German Securities Trading Act (WpHG) and section 315 of the German Commercial Code (HGB) in conjunction with German accounting standard GAS 20. Furthermore, the opportunity and risk report meets the transparency requirements regarding opportunities and risks applicable to DZ BANK as a separate entity that are specified in section 289 HGB in accordance with GAS 20.

This report also satisfies the applicable international risk reporting requirements, specifically those specified in IAS 1.134–136 (capital), IFRS 7.31–42 (nature and extent of risks arising from financial instruments), and IFRS 4.38–39A (nature and extent of risks arising from insurance contracts). The maturity analysis under IFRS 7.39(a) and (b) is disclosed in the notes to the consolidated financial statements (note 84).

The requirements set out in IFRS 7 are generally limited to financial instruments, shifting the focus of reporting to credit risk, equity investment risk, market risk, and liquidity risk. In contrast, the DZ BANK Group takes a holistic view of all these risks when using risk management tools and when assessing the risk position. As a consequence, the groupwide risk management system not only covers risks that arise specifically in connection with financial instruments, but also all other relevant types of risk. This integrated approach is reflected in this opportunity and risk report.

The external risk reporting as at December 31, 2015, as required by Part 8 of the Capital Requirements Regulation (CRR), can be found in the 2015 annual regulatory risk report of the DZ BANK banking group. This report is available on DZ BANK's website. The opportunity and risk report within the group management report implements those components of the regulatory disclosure requirements that relate directly to internal risk management but that do not directly relate to the regulatory reporting system.

This opportunity and risk report also includes information in compliance with those recommended risk-related disclosures that have been issued by the Financial Stability Board (FSB), the European Banking Authority (EBA), and the European Securities and Markets Authority (ESMA) that extend beyond the statutory requirements and that are intended to improve the usefulness of the disclosures in the decision-making process.

In accordance with the statutory requirements, the quantitative disclosures in this opportunity and risk report are based on information that is presented to the Board of Managing Directors and used for internal management purposes (known as the management approach). This is designed to ensure the usefulness of disclosures in the decision-making process, as required by law.

Since 2015, DZ BANK has been required to comply with additions to the Supervisory Review and Evaluation Process (SREP) regarding the management of economic liquidity adequacy, which is governed by the Internal Liquidity Adequacy Assessment Process (ILAAP). Accordingly, the same importance is attached to economic liquidity adequacy as to the management of economic capital adequacy on the basis of the rules of the Internal Capital Adequacy Assessment Process (ICAAP). Consequently, changes have had to be made to the opportunity and risk report. To ensure consistency between the disclosures and the risk management system, the relevant 'Liquidity risk' and 'Risk capital management' sections of the opportunity and risk report have been renamed 'Liquidity adequacy' and 'Capital adequacy' respectively, with each section split into an economic and a regulatory part.

DZ BANK Group

2. SUMMARY

2.1. STATEMENTS FROM THE BOARD OF MANAGING DIRECTORS

In accordance with article 435 (1e) CRR, the Board of Managing Directors of DZ BANK considers that the **risk management system** in place is adequate with regard to the risk profile and risk strategy of the DZ BANK Group. The ECB and the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) [Federal Financial Supervisory Authority] have identified some elements of the risk management system that require further development. DZ BANK has introduced the necessary measures for the further development of the risk management system and has put mechanisms in place to ensure that these measures are implemented systematically and without delay.

Section 2. of the opportunity and risk report forms the **risk statement** by the Board of Managing Directors specified in article 435 (1f) CRR.

2.2. OPPORTUNITY AND RISK MANAGEMENT SYSTEM

The DZ BANK Group defines **opportunities** as unexpected positive variances from the forecast financial performance.

Risks result from adverse developments affecting financial position or financial performance, and essentially comprise the risk of future losses or a future liquidity shortfall. A distinction is made between liquidity and capital. Risks that materialize can affect both of these resources.

The **management of opportunities** in the DZ BANK Group is integrated into the annual strategic planning process. Strategic planning enables the group to identify and analyze market discontinuities based on different macroeconomic scenarios, trends, and changes in the markets, and forms the basis for evaluating opportunities. Identified opportunities are taken into account in the business strategies.

Reports on future business development opportunities are based on the outcome of the business strategies. As part of the general communication of the business strategies, employees are kept up to date about potential opportunities that have been identified.

The DZ BANK Group has a comprehensive **risk management system** that in general meets its own business management needs and statutory requirements. Furthermore, the management of opportunities and risks forms an integral part of the groupwide strategic planning process. The risk management system is based on risk strategies that are derived from the business strategies and approved by the Board of Managing Directors.

The risk management system is more detailed than the system for the management of opportunities because risk management is subject to comprehensive statutory requirements and is also of critical importance to the continued existence of the DZ BANK Group as a going concern. The management of opportunities is based on a qualitative approach and is tightly integrated into the strategic planning process.

The purpose of the groupwide **risk capital management** system is to ensure that the risks in the risk types backed by capital are calculated consistently. As liquidity risk is not backed by capital, a groupwide **liquidity risk management** system is also in place.

Efficient management and control tools are used in all areas of risk. These tools are subject to continual further development and refinement. The development of these tools is derived from business management requirements and, in terms of risk management, is based on regulatory requirements. The methods used for the measurement of risk are integrated into the risk management system. Risk model calculations are used for the management of the DZ BANK Group and the entities included within the group.

Given the methods implemented and the organizational arrangements and IT systems put in place, DZ BANK and its subsidiaries are, to the greatest possible extent, in a position to identify material opportunities and risks at an early stage and to initiate appropriate control measures, both at the group level and at the level of the individual management units. This applies in particular to the early detection of risks that could affect the group's survival as a going concern.

The tools used for the purposes of risk management also enable the DZ BANK Group to respond appropriately to significant market movements. Possible changes in risk factors, such as a deterioration in credit ratings or the widening of credit spreads on securities, are reflected in adjusted risk parameters in the mark-to-model measurement of credit risk and market risk. Conservative crisis scenarios for short-term and medium-term liquidity are intended to ensure that liquidity risk management also takes adequate account of market crises. A risk limit system based on risk-bearing capacity, stress testing encompassing all material risk types, and a flexible internal reporting system generally ensure that the management is in a position to initiate targeted corrective action if required.

All DZ BANK Group entities are integrated into the groupwide opportunity and risk management system. DZ BANK and its main subsidiaries – also referred to as **management units** in this opportunity and risk report – represent the core of the financial services group. Each management unit forms a separate operating segment, and they are assigned to the sectors as follows:

Bank sector:
- DZ BANK
- BSH
- DG HYP
- DVB
- DZ PRIVATBANK
- TeamBank
- UMH
- VR LEASING

Insurance sector:
- R+V

Since February 2015, DZ BANK has measured the risks relating to **DZ BANK Ireland** separately and managed them on that basis. Following the renaming of this unit as DZ FINANCE Ireland Ltd., Dublin, and a capital reduction, the unit has been recognized within the equity investment risk of **DZ BANK** since November 30, 2015.

DG HYP has applied the **waiver** pursuant to section 2a (1), (2), and (5) KWG in conjunction with article 6 (1) and (5) and article 7 CRR since December 31, 2012. This means that DG HYP as an individual institution is no longer required to apply the provisions of Parts 2–5 and 8 CRR and they are instead covered at DZ BANK Group level.

The management units represent the operating segments of the DZ BANK Group. They are deemed to be material in terms of their contribution to the DZ BANK Group's aggregate risk and are therefore directly incorporated into the group's risk management system.

The other subsidiaries and investee entities are included in the system indirectly as part of equity investment risk.

The management units ensure that their respective subsidiaries and investees are also included in the DZ BANK Group's risk management system – indirectly via the majority-owned entities – and meet the minimum standards applicable throughout the group.

2.3. RISK FACTORS, RISKS, AND OPPORTUNITIES

2.3.1. Risk factors

The DZ BANK Group and DZ BANK are exposed to **risk factors related to both the market and sector**. These risk factors are reflected in capital adequacy and liquidity adequacy.

The regulatory framework for the **banking industry** is characterized by a steady progression of ever tighter regulatory capital and liquidity standards and increasingly stringent process and reporting requirements. These developments particularly have an impact on business risk. The challenge facing the **insurance industry** is the introduction of Solvency II and implementation of the related requirements.

Potentially, the European sovereign debt crisis and developments in other trouble spots around the world could have a negative impact on credit risk, equity investment risk, market risk, business risk, and reputational risk.

The protracted period of low interest rates will reduce profits.

Moreover, the DZ BANK Group is exposed to **business-specific risk factors of an overarching nature** that affect a number of risk types. These factors may include potential shortcomings in the risk management system, the possible downgrading of the credit rating for DZ BANK or its subsidiaries, or ineffective hedges. These risks are generally taken into account as part of overall risk management. Another risk factor is the planned merger of DZ BANK and WGZ BANK.

2.3.2. Risks and opportunities

The main **features of the directly managed risks** and their significance for the operating segments in the Bank and Insurance sectors are shown in figures 5 and 6.

To ensure that the presentation of the disclosures remains clear, the risk management system disclosures included in the opportunity and risk report are limited to the more material entities in the group (indicated in figure 5 by a dot on a dark gray background). This selection is based on a materiality assessment, which takes into account the contribution of each management unit to the DZ BANK Group's overall risk for each type of risk. In contrast, the figures presented in the opportunity and risk report cover all the management units included in the internal reporting system (indicated additionally in figure 5 by a dot on a light gray background).

The subcategories shown under credit risk and market risk in figure 5 are those with material significance for the Bank sector. The risk management system also includes other subcategories of credit risk and market risk but these additional subcategories are not described in this opportunity and risk report because they are of minor significance in the overall risk management picture, although they are included in the figures disclosed in the report.

The **solvency** of the DZ BANK Group was never in jeopardy at any point during the reporting period. By holding ample liquidity reserves, the group ensures that it is able to protect its liquidity against any potential crisis-related threats. It also complied with regulatory requirements for liquidity adequacy at all times. The DZ BANK Group remained within its economic **risk-bearing capacity** in 2015 and also complied with regulatory requirements for capital adequacy at all times. There are no indications that the continued existence of the DZ BANK Group or individual management units, including DZ BANK, as **going concerns** might be at risk.

The **opportunities** presented by the forecast developments are reasonable in relation to the risks that will be incurred.

3. FUNDAMENTAL PRINCIPLES OF MANAGING OPPORTUNITIES AND RISKS

3.1. REGULATORY FRAMEWORK FOR RISK MANAGEMENT

The **conglomerate-wide risk management system** complies with the statutory requirements specified in section 25 (1) FKAG in conjunction with section 25a KWG and the German Minimum Requirements for Risk Management for Banks and Financial Services Institutions (MaRisk BA). It also observes the requirements specified in section 64a (1) of the German Act on the Supervision of Insurance Undertakings (VAG, version valid until December 31, 2015) and section 28 of the German Capital Investment Code (KAGB) in conjunction with the German Minimum Requirements for Risk Management in Insurance Undertakings (MaRisk VA) and the German Minimum Requirements for Risk Management for Investment Companies (InvMaRisk).

When DZ BANK designed the risk management system of the DZ BANK Group and DZ BANK, it followed the guidance provided by the EBA and the European Insurance and Occupational Pensions Authority (EIOPA) and the pronouncements of the Basel Committee on Banking Supervision (BCBS) and the FSB on risk management issues.

BaFin has identified the DZ BANK Group as systemically important to the German financial industry and requested the group to prepare a **recovery plan**. In 2015, DZ BANK carried out its annual update of the recovery plan in accordance with the German Act on the Recovery and Resolution of Credit Institutions and Financial Groups (SAG), which included revising substantial parts of the plan to reflect new regulatory requirements.

In accordance with article 7 (2) of EU regulation no. 806/2014, the Single Resolution Board (SRB) is the European regulator responsible for the preparation of resolution plans and for all decisions in connection with the resolution of all institutions under the direct supervision of the ECB. A group resolution plan is drawn up for institutions that are subject to supervision at consolidated level. The SRB works closely with the national resolution agencies (in Germany, this is the Bundesanstalt für Finanzmarktstabilisierung (FMSA) [Federal Agency for Financial Market Stabilization]). The **resolution plan** is aimed at ensuring the resolvability of the banking group. In accordance with section 42 (1) SAG, the resolution agency can demand that the institution provide comprehensive assistance on drawing up and updating the resolution plan. The FMSA notified DZ BANK of the nature and scope of the required support in mid-2015. DZ BANK contributed to the preparation of the provisional resolution plan for the DZ BANK Group by supplying the FMSA with extensive written materials and analyses.

3.2. RISK STRATEGIES AND RISK APPETITE

The exploitation of business opportunities and the systematic, controlled assumption of risk in relation to target returns form an integral part of corporate control in the DZ BANK Group and at DZ BANK. The activities resulting from the business model require the ability to identify, measure, assess, manage, monitor, and communicate opportunities and risks. The need to cover risks with adequate capital and to hold appropriate reserves of cash is also recognized as an essential prerequisite for the operation of the business and is of fundamental importance.

In all their activities, the DZ BANK Group and DZ BANK therefore observe a risk culture in which they only take on risk to the extent necessary to achieve their business objectives – taking account of the overarching principle of a 'network-oriented central institution and financial services group' – and to the extent that the management units have an adequate understanding of, and expertise in, measuring and managing the risk. At the same time, the entities in the DZ BANK Group consider all material risks from the perspectives of capital/income and liquidity and avoid consciously or unconsciously assuming risk in an aggressive manner.

In order to implement this principle, the Board of Managing Directors of DZ BANK has drawn up **risk strategies** for each of the material risks using the business strategies as a basis. The risk strategies each encompass the main risk-bearing business activities, the objectives of risk management (including the requirements for accepting or preventing risk), and the action to be taken to attain the objectives. The planning horizon is one year.

The risk strategies are updated annually as part of the strategic planning process by the Group Risk Controlling, Credit, and Group Strategy & Controlling divisions in close consultation with other relevant divisions at DZ BANK and the subsidiaries.

The risk strategies are described in the following sections covering the individual risk types.

FIG. 5 – RISKS AND OPERATING SEGMENTS IN THE BANK SECTOR[1]

Risks

	Risk type	Definition	Risk factors
	RISK NOT COVERED BY CAPITAL		
	Liquidity risk	Risk that cash and cash equivalents will not be available in sufficient amounts to ensure that payment obligations can be met (insolvency risk)	– Funding structure for lending business – Uncertainty surrounding tied-up liquidity – Changes in the volume of deposits and loans – Funding potential in money markets and capital markets – Fluctuations in fair value, marketability of securities, and the eligibility of such securities for use in collateralized funding arrangements – Exercise of liquidity options – An obligation on the DZ BANK Group to pledge its own collateral
	RISK COVERED BY CAPITAL		
Financial-sector risks	**Credit risk** – Traditional credit risk – Issuer risk – Replacement risk	Risk of losses arising from the default of counterparties (borrowers, issuers, other counterparties)	– Concentration of loans with a longer term to maturity and a non-investment-grade credit rating – Deterioration in the credit quality of public-sector bonds – Increased requirement for allowances for loans on losses and advances
Financial-sector risks	**Equity investment risk**	Risk of losses arising from negative changes in the fair value of that portion of the long-term equity investments portfolio in which the risks are not included in other types of risk	Increased requirement for the recognition of impairment losses on the carrying amounts of investments
Financial-sector risks	**Market risk** – Interest-rate risk – Spread risk – Equity risk – Fund price risk – Currency risk – Commodity risk – Asset management risk – Market liquidity risk	– Risk of losses on financial instruments or other assets arising from changes in market prices or in the parameters that influence prices (market risk in the narrow sense of the term) – Risk of losses arising from adverse changes in market liquidity (market liquidity risk)	– Fall in the general level of interest rates – Widening of credit spreads on European government bonds – Shortages of market liquidity
Business-performance risk	**Technical risk of a home savings and loan company**[2] – New business risk – Collective risk	– Risk of a negative impact from possible variances compared with the planned new business volume (new business risk) – Risk of a negative impact that could arise from variances between the actual and forecast performance of the collective building society operations caused by significant long-term changes in customer behavior unrelated to changes in interest rates (collective risk)	– Decline in new business – Changed customer behavior (unrelated to changes in interest rates)
Business-performance risk	**Business risk**	Risk of losses arising from earnings volatility which, for a given business strategy, is caused by changes in external conditions or parameters	– Costs of regulation – Planned merger of DZ BANK and WGZ BANK – Fiercer competition based on pricing and terms – Insufficiently competitive electronic trading platforms – Digitization and demographic change
Business-performance risk	**Reputational risk**	Risk of losses from events that damage confidence, mainly among customers (including the local cooperative banks), shareholders, the labor market, the general public, and the regulator in the entities in the Bank sector or in the products and services that they offer	– Decrease in new and existing business – Funding difficulties
Business-performance risk	**Operational risk**	Risk of losses from human behavior, technological failure, weaknesses in process or project management, or external events	– Business interruptions – Insufficient availability of employees – Malfunctions or breakdowns in data processing systems – Disruptions to outsourced processes and services – Inaccurate external financial reporting – Impact of market manipulation and accounting or tax fraud – Failure to recognize violations of legal provisions

1 Apart from migration risk on traditional loans, which are covered by the capital buffer.
2 Including the business risk and reputational risk of BSH.
3 Included in the risk capital requirement for business risk; at BSH, largely covered by the risk capital requirement for the technical risk of a home savings and loan company.

Risk management KPIs disclosed		Operating segments: DZ BANK	BSH	DG HYP	DVB	DZ PRIVATBANK	TeamBank	Union Asset Management Holding	VR LEASING
– Liquid securities – Additional contractual obligations – Unsecured short-term and medium-term funding – Minimum liquidity surplus – LCR and NSFR	Section 6.2.6. Section 6.2.6. Section 6.2.6. Section 6.2.7. Section 6.3.3.	●	●	●	●	●	●		●
– Lending volume – Allowances for losses on loans and advances – Risk capital requirement	Sections 8.5., 8.6., and 8.7. Section 8.8. Section 8.9.	●	●	●	●	●	●		●
– Investment volume – Risk capital requirement	Section 9.4.	●	●	●	●	●	●	●	●
– Risk capital requirement – Value-at-risk	Section 10.6.1. Section 10.6.2.	●	●	●	●	●	●	●	●
Risk capital requirement	Section 11.5.		●						
Risk capital requirement	Section 12.4.	●		●	●	●	●	●	●
Risk capital requirement[3]	Section 13.4.	●	●	●	●	●	●	●	●
– Loss events and losses – Risk capital requirement	Section 14.6. Section 14.7.	●	●	●	●	●	●	●	●

Disclosures about the management units in the opportunity and risk report:

● Quantitative and qualitative disclosures ● Quantitative disclosures Not relevant

FIG. 6 – RISKS IN THE INSURANCE OPERATING SEGMENT AND SECTOR

	Risk type	Definition	Risk factors	Risk management KPIs disclosed	
	RISK COVERED BY CAPITAL PURSUANT TO SOLVENCY II				
Core financial sector risks	**Actuarial risk** – Life actuarial risk – Health actuarial risk – Non-life actuarial risk	– Life actuarial risk: Risk arising from the assumption of life insurance obligations, in relation to the risks covered and the processes used in the conduct of this business – Health actuarial risk: Risk arising from the assumption of health and casualty insurance obligations, in relation to the risks covered and the processes used in the conduct of this business – Non-life actuarial risk: Risk arising from the assumption of non-life insurance obligations, in relation to the risks covered and the processes used in the conduct of this business	– In the case of products with long-term guarantees, the long duration of the contracts means that what happens over the term of the contracts may vary from the calculation assumptions made at the time the contracts were signed – The level of claims resulting from policyholders' and service providers' behavior causes a larger rise in claims expenses than the one in the calculation assumptions – The actual impact of losses, particularly from catastrophe risk, exceeds the forecast impact	– Claims rate trend in non-life insurance – Overall solvency requirement	Section 16.6. Section 16.7.
Core financial sector risks	**Market risk** – Interest-rate risk – Spread risk – Equity risk – Currency risk – Real-estate risk	Risk arising from fluctuation in the level or volatility of market prices of financial instruments that have an impact on the value of the assets and liabilities of the entity	– The guaranteed minimum growth rates agreed for certain products when the contract is signed cannot be obtained on capital markets over the long term – Widening of credit spreads on government bonds or other bonds leads to a fall in fair values, resulting in a temporary or permanent adverse impact on operating profit – A possible worsening of the financial circumstances of issuers and/or debtors results in partial or complete default on receivables or write-downs as a result of rating downgrades	– Lending volume – Overall solvency requirement	Sections 17.4. and 17.5. Section 17.6.
Core financial sector risks	**Counterparty default risk**	Risk of possible losses due to unexpected default or deterioration in the credit standing of counterparties and debtors of insurance and reinsurance companies over the following 12 months	Unexpected default or deterioration in the credit standing of counterparties of derivatives, reinsurance counterparties, and receivables from policyholders and insurance brokers	– Lending volume – Overall solvency requirement	Sections 17.4. and 17.5. Section 18.3.
Business-performance risk	**Operational risk**	Risk of loss arising from inadequate or failed internal processes, personnel, or systems, or from external events (including legal risk)	– Business interruptions – Insufficient availability of employees – Malfunctions or breakdowns in data processing systems	Overall solvency requirement	Section 19.4.
	RISK COVERED BY CAPITAL PURSUANT TO SOLVENCY I				
	Entities in other financial sectors	The entities in other financial sectors mainly consist of pension funds and occupational pension schemes.	Generally corresponding to the risk factors for risks backed by capital pursuant to Solvency II	Overall solvency requirement	Section 20.

A **risk appetite statement** was formulated for the first time in 2015. This centralized document contains fixed written principles on risk appetite in the DZ BANK Group. The principles are overarching pronouncements that are incorporated consistently into the business and risk strategies and in other, more detailed documentation. These qualitative principles are supplemented by quantitative targets, including relevant threshold values.

3.3. OPPORTUNITY AND RISK-ORIENTED CORPORATE GOVERNANCE

3.3.1. Governance structure

The DZ BANK Group's **risk management system** builds on the risk strategies adopted by the Board of Managing Directors of DZ BANK. It is based on three pillars that are interlinked and well established in the monitoring and control environment. The DZ BANK Group and DZ BANK thereby have a governance structure complying with MaRisk requirements that sets out the operational framework for risk management. Figure 7 shows the governance structure for risk management.

The **three pillars model** clarifies the understanding of risk management within the DZ BANK Group and defines clearly formulated and distinct roles and responsibilities. The interaction between the three functional areas, or 'pillars', provides the basis for effective groupwide risk management. The tasks of the individual pillars are as follows:

– **Pillar 1**: Day-to-day assumption and management of risk

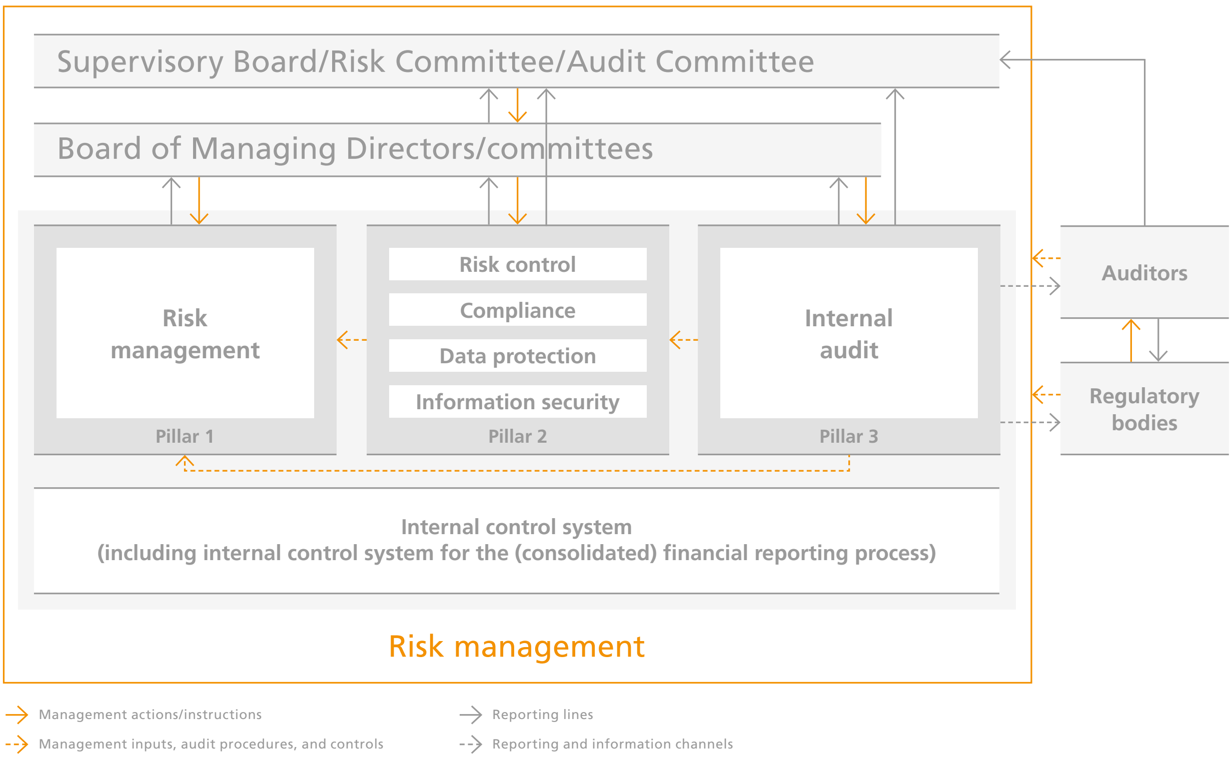
– **Pillar 2**: Establishment and enhancement of a framework for risk management; monitoring of compliance with the framework by pillar 1 and reporting on this to the Supervisory Board and Board of Managing Directors

– **Pillar 3**: Process-independent examination and assessment of risk management and control processes in pillars 1 and 2; reporting to the Board of Managing Directors, Supervisory Board, and Audit Committee; communication with external control functions.

The Supervisory Board monitors corporate management and evaluates the adequacy of the risk management system and internal control system on an ongoing basis.

Independent auditors and the banking and insurance regulators form the **external control environment**, whereby the regulators may specify the focus of the audit to the auditors and the auditors report to the regulators on the findings of their audits of financial statements and special audits.

FIG. 7 – GOVERNANCE STRUCTURE OF RISK MANAGEMENT IN THE DZ BANK GROUP (SCHEMATIC DIAGRAM)



The role of the risk management **committees** in the corporate governance structure is explained in section I.3.1.2. of the (group) management report.

The **business opportunities** are discussed during the course of the strategic planning process at the level of the individual management units and within special closed sessions held by the Board of Managing Directors.

3.3.2. Risk management

Risk management refers to the operational implementation of the risk strategies in the risk-bearing business units based on standards applicable throughout the group.

The management units make conscious decisions on whether to assume or avoid risks. They must observe guidelines and risk limits specified by the head office.

The divisions responsible for risk management are separated both in terms of organization and function from downstream divisions.

3.3.3. Risk control

Central Risk Controlling at DZ BANK is responsible for identifying, measuring, and assessing risk in the DZ BANK Group and at DZ BANK. This is accompanied by the planning of upper loss limits. It includes early detection, full recording of data (to the extent that this is possible) and internal monitoring for all material risks. Risk Controlling also reports risks to the Supervisory Board, the Board of Managing Directors, and the management units.

Risk Controlling at DZ BANK lays down the fundamental requirements for the risk measurement methods to be used throughout the group and coordinates implementation with the risk control units in the other management units. The aim of this structure is to ensure that the management of risk capital is consistent throughout the group.

In cooperation with the other management units, Risk Controlling at DZ BANK establishes a groupwide risk reporting system covering all material types of risk based on specified minimum standards using methods agreed between the management units.

Both at DZ BANK and in the other management units, Risk Controlling is responsible for the transparency of risks assumed and aims to ensure that all risk measurement methods used are up to date. The risk control units in the management units also monitor compliance with the entity-related limits that the management units have set themselves based on the risk capital allocated by DZ BANK. Risk Controlling at DZ BANK is also responsible for risk reporting at group level. In addition to this, the management units are responsible for their own risk reporting.

3.3.4. Compliance, data protection, and information security

COMPLIANCE

The role of each of the compliance functions in the DZ BANK Group is to ensure that business activities are conducted in accordance with applicable law, regulatory requirements, and internal rules and regulations. Monitoring and control activities are largely focused on private transactions carried out by employees (guiding principles for employees) and on preventing insider trading, market manipulation, money laundering, the financing of terrorism, and other criminal offenses. The purpose of these activities is to protect customers, employees, and the DZ BANK Group itself.

The requirements for the compliance function specified by MaRisk BA were implemented by the relevant subsidiaries in consultation with DZ BANK in 2015. The DZ BANK compliance office lays down the fundamental requirements with respect to the methods for identifying relevant compliance risks to be used across the group. It liaises with the management units to ensure that consistent procedures are used throughout the group.

The managers responsible for the compliance function each report directly to the Responsible Board Member for this area of activity.

In view of SREP coming into effect on January 1, 2016 and the associated requirements regarding implementation of a groupwide compliance framework, DZ BANK drew up such a framework for the DZ BANK Group in consultation with the other management units. This has laid the foundations for implementing the compliance requirements on the basis of a standardized, groupwide process. The intention is to launch the framework in 2016.

DATA PROTECTION

The entities in the DZ BANK Group have introduced suitable precautions to ensure that they comply with data protection provisions relating to customers, business partners, and employees. This has involved, in particular, creating the function of data protection officer and issuing standard data protection principles. In addition, employees regularly receive updates on the currently applicable data protection provisions. The data protection officer reports to the Board of Managing Directors on matters concerning the data protection organization.

INFORMATION SECURITY

The DZ BANK Group understands information security to be the operational security of processes, IT applications, and IT infrastructures. To ensure operational IT security, DZ BANK has implemented information security management systems that apply throughout the bank. The instructions and rules based on these systems are aimed at the quantitative and qualitative assessment of the related IT risk, which is classified as operational risk.

Examples of activities undertaken in the area of information security management include ascertaining the protection required by IT applications, ensuring software updates are handled in a standardized process (patch management), implementing a system to provide end-to-end protection against malware, identifying potential weaknesses in IT systems, and analyzing security incidents. Another key element of information security management at DZ BANK is user and authorization management.

3.3.5. Control functions

INTERNAL AUDIT

The **internal audit** departments of DZ BANK and all the main subsidiaries are responsible for non-process-specific control and monitoring tasks. They carry out systematic, regular risk-based audits focusing on compliance with statutory and regulatory requirements. The internal audit departments also review and assess the risk management and internal control systems to ensure that they are fully operational, effective, and that processing is properly carried out, and monitor the action taken in response to audit findings to ensure that identified problems have been rectified.

The internal audit departments at DZ BANK and the other management units report to the chief executive officer or other senior managers of the unit concerned. DZ BANK and all subsidiaries involved follow the special requirements for the structure of the internal audit function specified in MaRisk.

DZ BANK's internal audit department is responsible for internal audit tasks at group level. These tasks include, in particular, the coordination of audits involving multiple entities, the implementation of which lies within the remit of the individual internal audit departments in the management units concerned, and the evaluation of individual management unit audit reports of relevance to the group as a whole. Cooperation between internal audit departments in the DZ BANK Group is governed by a separate set of rules and arrangements.

SUPERVISORY BOARD

The following information meets the disclosure requirements specified in article 435 (2d) and (2e) CRR. The disclosures also include the flow of risk-related information to the Supervisory Board in accordance with article 435 (2e) CRR.

The Board of Managing Directors provides the Supervisory Board of DZ BANK with regular and timely reports about the risk situation, the risk strategies, and the status and further development of the risk management system of the DZ BANK Group and DZ BANK. Furthermore, the Board of Managing Directors provides the Supervisory Board with regular reports about significant loan and investment exposures and the associated risks. The Supervisory Board discusses these issues with the Board of Managing Directors, advises it, and monitors its management activities. The Supervisory Board is always involved in decisions of fundamental importance.

The Supervisory Board has set up a Risk Committee that pays close attention to risk-related corporate management. The chairman of the Risk Committee provides the Supervisory Board with regular and timely reports on the material findings of the committee's work. The Risk Committee held 5 meetings in the year under review.

As part of the quarterly written information about the risk situation in the DZ BANK Group, the Board of Managing Directors provides the members of the Risk Committee and the other members of the Supervisory Board with a quarterly overall risk report. The Risk Committee also receives the credit risk report, the report on the economic stress tests, and the report on current indicators in accordance with the German Minimum Requirements for the Design of Recovery Plans (MaSan) on a quarterly basis. The chairman of the Risk Committee informs the Supervisory Board about these matters no later than at its next meeting. The minutes of Risk Committee meetings are sent to all members of the Supervisory Board on a regular basis.

EXTERNAL CONTROL FUNCTIONS

During the audit of the annual financial statements, independent **auditors** carry out an assessment pursuant to section 29 (1) sentence 2 no. 2a) KWG in conjunction with section 25a (1) sentence 3 KWG to establish whether the Company's risk management processes for the Bank sector, including its internal control functions, are fit for purpose. For the Insurance sector, an assessment of the suitability of the early-warning system for risk, including the internal monitoring system of R+V, is carried out during the audit of the annual financial statements pursuant to section 57 (1) sentence 3 VAG (version valid until December 31, 2015) in conjunction with section 317 (4) HGB and section 91 (2) of the German Stock Corporation Act (AktG).

The **banking and insurance regulatory authorities** also conduct audits focusing on risk.

3.3.6. Internal control system

DZ BANK uses the groupwide internal control system to implement the relevant regulatory requirements specified in MaRisk. The internal control systems of the DZ BANK Group and DZ BANK also take into account the framework for internal controls produced by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), which can be applied to any industry.

The objective of the internal control systems is to ensure the effectiveness and efficiency of the risk management activities within the DZ BANK Group and at DZ BANK by means of suitable basic principles, action plans, and procedures.

Organizational structures and controls built into work processes serve to ensure that the monitoring of risk management activity is integrated into processes.

IT systems are systematically protected by authority-dependent management of authorizations and by technical security measures, the aim of which is to prevent unauthorized access both within and outside management units.

3.3.7. Internal control system for the (consolidated) financial reporting process

OBJECTIVE AND RESPONSIBILITIES

DZ BANK is subject to a requirement to prepare consolidated financial statements and a group management report as well as separate financial statements and a management report. The primary objective of external (consolidated) financial reporting in the DZ BANK Group and at DZ BANK is to provide appropriate, timely information for the users of the reports. This includes all activities to ensure that (consolidated) financial reporting is properly prepared and that violations of accounting standards – which could result in the provision of inaccurate information to users or in mismanagement of the group – are avoided with a sufficient degree of certainty.

In order to limit operational risk in this area of activity, DZ BANK and its subsidiaries have set up an internal control system for the (consolidated) financial reporting process as an integral component of the control system put in place for the general risk management process. In this context, the activities of employees, the implemented controls, the technologies used, and the design of work processes are structured to ensure that the objectives associated with (consolidated) financial reporting are achieved.

Overall responsibility for (consolidated) financial reporting lies in the first instance with Group Finance and Group Risk Controlling at DZ BANK, with all the consolidated entities in the DZ BANK Group responsible for preparing and monitoring the quantitative and qualitative information required for the consolidated financial statements.

INSTRUCTIONS AND RULES

The methods to be applied within the DZ BANK Group in the preparation of the consolidated financial statements are set out in writing in a group manual. The methods to be applied within DZ BANK in the preparation of the separate financial statements are set out in writing in organization manuals. Both internal manuals are updated on an ongoing basis. The basis for external risk reporting is the disclosure policy approved by the Board of Managing Directors. This policy sets out the principles and fundamental decisions for the methods, organizational structure, and IT systems to be used in risk disclosure, for the integration of risk disclosure into general financial disclosure, and for the interconnection between risk disclosure and internal risk reporting in the DZ BANK Group and at DZ BANK. By adopting this disclosure policy, the Board of Managing Directors also established the key elements of the risk-related disclosure procedures and communicated them throughout the DZ BANK Group. The instructions and rules are audited regularly to assess whether they remain appropriate and are amended in line with internal and external requirements.

RESOURCES AND METHODS

The processes set up at DZ BANK and its subsidiaries (using suitable IT systems) permit efficient risk management in respect of financial reporting, based on the guidelines set by the Finance working group and taking into account the rules in the risk manual and the policy on risk disclosure.

The group's financial reporting process is decentralized, with the organizational units of the DZ BANK Group taking responsibility for preparing and checking the quantitative and qualitative information required for the consolidated financial statements. The group accounting and risk control departments at DZ BANK implement the relevant controls and checks in respect of data quality and compliance with the DZ BANK Group rules. Guidelines for the management units' risk control departments on data quality management and the internal control system set out the standards for ensuring the quality of data in the process for managing economic capital adequacy.

The organizational units post the accounting entries for individual transactions. The consolidation processes are carried out by DZ BANK's group accounting department and by the accounting departments of each subgroup in the DZ BANK Group. The purpose of this structure is to ensure that all accounting entries and consolidation processes are properly documented and checked.

Financial reporting, including consolidated financial reporting, is chiefly the responsibility of employees of DZ BANK and the other organizational units in the DZ BANK Group. If required, external experts are brought in for certain accounting-related calculations as part of the financial reporting process, such as determining the defined benefit obligation and valuing collateral.

Consolidated financial reporting is subject to mandatory workflow plans agreed between DZ BANK's group accounting department and the individual accounting departments of the organizational units within the DZ BANK Group. These plans set out the procedures for collating and generating the quantitative and qualitative information required for the preparation of statutory company reports and which are necessary for the internal management of the operating units within the DZ BANK Group.

Generally accepted valuation methods are used in the preparation of the consolidated financial statements and group management report, and the separate financial statements and the management report, and these methods are regularly reviewed to ensure they remain appropriate.

In order to ensure the efficiency of accounting systems, the processing of the underlying data is extensively automated using suitable IT systems. Comprehensive control mechanisms are in place with the aim of ensuring the quality of processing and are one of the elements used to limit operational risk. Accounting input and output data undergoes a number of automated and manual checks.

Suitable business continuity plans have also been put in place. These plans are intended to ensure the availability of HR and technical resources required for the accounting and financial reporting processes. The business continuity plans are regularly checked using appropriate tests and fine tuned.

INFORMATION TECHNOLOGY

The IT systems used for (consolidated) financial reporting have to satisfy the applicable security requirements in terms of confidentiality, integrity, availability, and authenticity. IT-supported controls are used, the purpose of which is to ensure that the processed accounting data is handled properly and securely in accordance with the relevant requirements. The controls in IT-supported accounting processes include, in particular, validation procedures to ensure consistent issue of authorizations, verification of master data modifications, logical access controls, and change management validation procedures in connection with developing, implementing, or modifying IT applications.

The IT infrastructure required for the use of IT-supported (consolidated) accounting systems is subject to the security controls implemented as part of the general IT security principles at DZ BANK and the other entities in the DZ BANK Group.

The information technology used for consolidated accounting purposes is equipped with the functionality to enable it to handle the journal entries in individual organizational units as well as the consolidation transactions carried out by DZ BANK's group accounting department and by the accounting departments in the subgroups.

IT-supported (consolidated) accounting processes are audited as an integral part of the internal audit work carried out at DZ BANK and the other entities in the DZ BANK Group.

ENSURING AND IMPROVING EFFECTIVENESS

The processes used are regularly reviewed to ensure they remain appropriate and fit for purpose; they are adapted in line with new products, situations, or changes in statutory requirements. To guarantee and increase the quality of (consolidated) accounting at DZ BANK and the other entities in the DZ BANK Group, the employees charged with responsibility for financial reporting receive needs-based training in the legal requirements and the IT systems used. When statutory changes are implemented, external advisors and auditors are brought in at an early stage to provide quality assurance for financial reporting. At regular intervals, the internal audit department audits the internal control system related to the process for (consolidated) financial reporting.

3.4. RISK MANAGEMENT TOOLS

3.4.1. Accounting basis for risk measurement

The transaction data that is used to prepare the DZ BANK consolidated financial statements forms the basis for the measurement of risk throughout the group. The same applies to the separate financial statements of DZ BANK. A wide range of other factors are also taken into account in the calculation of risk. These factors are explained in more detail during the course of this opportunity and risk report.

The line items in the consolidated financial statements relevant to risk measurement are shown in figure 8. The information presented is also applicable to the measurement of risk for the separate financial statements of DZ BANK and the measurement of its risk, which does not include the technical risk of a home savings and loan company or the risks incurred by the Insurance sector.

FIG. 8 – RISK-BEARING EXPOSURES IN THE CONSOLIDATED FINANCIAL STATEMENTS[1]

		BANK SECTOR												INSURANCE SECTOR								
		Credit risk				Market risk								Actuarial risk			Market risk					
											Portfolio assignment[2]											
	Consolidated financial statements	Traditional credit risk	Issuer risk	Replacement risk	**Equity investment risk**	Interest-rate risk	Spread risk	Equity risk	Currency risk	Commodity risk	Trading portfolios	Non-trading portfolios	**Technical risk of a home savings and loan company**	Life	Health	Non-life	Interest-rate risk	Spread risk	Equity risk	Currency risk	Real-estate risk	**Counterparty default risk**
Risk-bearing assets	Loans and advances to banks	●		●		●	●		●		●	●	●									
	Loans and advances to customers	●				●	●		●		●	●	●									
	Derivatives used for hedging (positive fair values)			●		●	●	●	●	●	●	●										
	Financial assets held for trading		●	●		●	●	●	●	●	●											
	Investments		●	●	●	●	●	●	●			●										
	Investments held by insurance companies																●	●	●	●	●	●
	Other assets													●	●	●						●
	Financial guarantee contracts and loan commitments	●				●			●			●										
Risk-bearing liabilities	Deposits from banks					●	●		●		●	●	●									
	Deposits from customers					●	●		●		●	●	●									
	Debt certificates issued including bonds					●	●	●	●	●	●	●										
	Derivatives used for hedging (negative fair values)			●		●	●	●	●	●	●	●										
	Financial liabilities held for trading			●		●	●	●	●	●	●											
	Insurance liabilities													●	●	●	●					

1 As liquidity risk is determined on the basis of all exposures in the consolidated financial statements, the details for liquidity risk are not provided here for reasons of clarity.
2 Disclosures for the banking business.

The sections below provide a further explanation of the link between individual types of risk and the consolidated financial statements.

A further breakdown of the line items in the consolidated financial statements used to determine **credit risk** is given in section 8.5.2.

The investments used for the purposes of measuring **equity investment risk** are the following items reported in note 55 of the notes to the consolidated financial statements: shares and other shareholdings, investments in subsidiaries, investments in associates, and investments in joint ventures.

In the **Bank sector**, the measurement of financial instruments both for the purposes of determining market risk and for financial reporting purposes is based on financial market data provided centrally. Minor discrepancies arise from the recognition of different impairment amounts in the market risk calculation and in the accounting treatment. With the exception of these differences, the disclosures relating to **market risk** reflect the fair values of the assets and liabilities concerned.

The measurement for the **technical risk of a home savings and loan company** is based on the loans and advances to customers (home savings loans) and also the home savings deposits (deposits from customers) described in note 63 of the notes to the consolidated financial statements.

Insurance liabilities, as reported in the financial statements, are a key value for determining all types of **actuarial risk**. The line item Investments held by insurance companies is also used to determine all types of **market risk** and **counterparty default risk**. The line item Other assets is included in the computation of actuarial risk and counterparty default risk.

Operational risk, **business risk**, and **reputational risk** are measured independently of the balance sheet items reported in the consolidated financial statements.

The calculation of **liquidity risk** is derived from future cash flows, which in general terms are determined from all of the balance sheet items in the consolidated financial statements.

3.4.2. Measurement of risk and risk concentrations

FRAMEWORK

Risk management in the DZ BANK Group is based on a **resource-oriented perspective of capital and liquidity**. It thus reflects the latest regulatory developments in connection with SREP. A distinction is also made between economic and regulatory capital adequacy and between economic and regulatory liquidity adequacy. The impact of each risk type on both economic capital and economic liquidity is taken into consideration. The effect and materiality of the various types of risk may vary, depending on the resource in question.

ECONOMIC LIQUIDITY ADEQUACY

To ascertain the DZ BANK Group's economic liquidity adequacy, the minimum surplus cash that would be available if various scenarios were to materialize within the following year is determined as part of the **measurement of liquidity risk**.

Concentrations of liquidity risk can occur primarily due to the accumulation of outgoing payments at particular times of the day or on particular days (concentrations of maturities), the distribution of funding across particular currencies, markets, products, and liquidity providers (concentrations of funding sources), and the distribution of liquidity reserves across particular currencies, ratings, and issuers (concentrations of reserves). There is no capital requirement in connection with liquidity risk.

Liquidity risk in the **Insurance sector**, including R+V's funding risk, is not material at DZ BANK Group level. Firstly, this is because long-term liquidity is typically tied up in liabilities and assets in insurance business. Secondly, R+V is only exposed to a low level of liquidity risk because of its wide range of products and customers and the high quality and liquidity of its investments. Consequently, R+V is not taken into account in the liquidity risk management of the DZ BANK Group.

ECONOMIC CAPITAL ADEQUACY

In the **Bank sector**, **economic capital** (risk capital requirement) is calculated for credit risk, equity investment risk, market risk, the technical risk of a home savings and loan company, operational risk, and business risk in order to ascertain economic capital adequacy. This risk capital requirement is generally calculated as value-at-risk with a holding period of one year and a unilateral confidence level of 99.90 percent.

The capital requirement for the individual risk types is aggregated into the total risk capital requirement for the Bank sector taking into account various diversification effects. The diversified risk capital requirement reflects the inter-dependency of individual types of risk. The risks relating to the Bank and Insurance sectors are aggregated, disregarding diversification effects between the sectors.

In the **Insurance sector**, risk measurement is based on the method specified in Solvency II with the aim of determining value-at-risk, which is the measure of **economic capital**. The value-at-risk for the change in economic own funds is determined with a confidence level of 99.50 percent over a period of one year.

The reason for managing **risk concentrations** by analyzing portfolios is to identify potential downside risks that may arise from the accumulation of individual risks and, if necessary, to take corrective action. A distinction is made between risk concentrations that occur within a risk type (intra-risk concentrations) and concentrations that arise as a result of the interaction between different types of risk (inter-risk concentrations). Inter-risk concentrations are implicitly taken into account when determining correlation matrices for the purposes of inter-risk aggregation. They are mainly managed by using quantitative stress test approaches and qualitative analyses to provide a holistic view across all types of risk. The analysis of intra-risk concentrations is described for each type of risk in the sections below.

RISK COVERED BY CAPITAL IN THE BANK SECTOR

Expected and unexpected losses are calculated during credit-portfolio analysis for transactions containing credit risk that are conducted by entities in the Bank sector. The capital requirement for **credit risk** is determined as the unexpected loss equivalent to the difference between the value-at-risk and the expected loss. This calculation is based on one-year default probabilities derived from historical loss data, taking into account additional transaction-specific features and reflecting the current rating of the borrower. The rating reflects an assessment of the borrower's future economic strength. Other factors taken into account in the calculation of exposures subject to credit risk include measurable collateral, netting agreements, and expected recovery rates based on past experience.

In order to highlight concentrations of credit risk, the exposure at portfolio level is categorized by, among other things, industry sector, country group, term to maturity, size category, and rating. In addition, risks resulting from large exposures to individual single borrower units are closely monitored and managed. The key factor to be considered when determining concentrations of credit risk is the possibility of a simultaneous default by a number of borrowers who share one or more characteristics. This is why determining the correlated exposure to loss as a part of the calculation of the risk capital required for credit risk is essential for managing risk concentrations.

Equity investment risk is determined as value-at-risk on the basis of a variance-covariance approach. Concentrations of equity investment risk are identified by allocating investments to different categories according to the purpose of the investee company; the risk model used assumes a high level of correlation within each category. From the first quarter of 2016, equity investment risk at DZ BANK will be determined using Monte Carlo simulation, in which portfolio concentrations in industries and individual exposures will be examined by simulating industry-wide and investment-specific risk factors.

The capital requirement for **market risk** is calculated as the value-at-risk over a one-year time horizon based on simulations. The results of stress tests are included in this calculation. In addition to calculating economic capital, and for purposes of operational management, a value-at-risk for a holding period of one trading day and a unilateral confidence level of 99.00 percent is calculated for market risk within the internal model.

Concentrations in the portfolio affected by market risk are identified by classifying the exposure in accordance with the risk factors associated with interest rates, spreads, migration, equities, currencies, and commodities. This incorporates the effects of correlation between these different risk factors, particularly in stress phases. Stress tests are carried out for market liquidity risk.

A special collective simulation, which includes the effects of a (negative) change in customer behavior and a drop in new business, is used to measure the **technical risk of a home savings and loan company**. Concentrations of this risk are most likely to arise from new business risks.

Business risk is determined using a risk model based on an earnings-at-risk approach. Risk concentrations may arise if business activities are focused on a small number of areas. Concentrations of business risk are limited by using qualitative criteria as part of strategic management. For the Bank sector, **strategic risk** is classified as non-material and examined in the context of business risk.

Reputational risk in the Bank sector is taken into account within business risk and is therefore implicitly included in the measurement of risk and assessment of capital adequacy.

The economic capital requirement for **operational risk** is determined using a portfolio model. Analyses of internal losses, risk indicators, or risk self-assessments facilitate identification of risk concentrations. Such concentrations can occur, for example, if IT systems are supplied by just a few companies or if business processes are outsourced to a limited number of service providers.

From the perspective of economic capital adequacy, **funding risk** is not material.

RISKS IN THE INSURANCE SECTOR

To determine **actuarial risk**, negative scenarios are examined that have been taken from Solvency II and, in some cases, supplemented by the group's own parameterization or internal risk assessment.

Modeling and risk quantification, including on the basis of historical claims data, is carried out for parts of the premium and reserve risk and non-life catastrophe risk. These are based on the group's own portfolio and, in the case of natural catastrophes, on data from third-party providers. Possible risk concentrations are also analyzed, monitored, and managed as part of the risk management system.

The analysis, monitoring, and management of concentrations of actuarial risk are carried out as part of the risk management process. Potential risk concentrations arise when different types of risk are combined with the concentration dimension (e.g. individual exposure, sector, country group). The same risk concentrations are analyzed at DZ BANK level.

When measuring **market risk**, shock scenarios are examined that have been taken from Solvency II and, in some cases, supplemented by the group's own parameterization.

The capital requirements for **counterparty default risk** are determined on the basis of the relevant exposure and the expected losses per counterparty.

The risk capital requirement for **operational risk** in the Insurance sector is calculated as a factor of the volume measures of premiums and provisions and, in the case of unit-linked business, as a factor of costs. In addition, operational risk is identified and quantified using a scenario-based risk self-assessment. R+V uses suitable quality standards and communications strategies to limit its reputational risk.

Risk for **entities in other financial sectors** is quantified in accordance with the requirements currently specified by the insurance regulator. This means applying the capital requirements in Solvency I, which are essentially calculated as a factor of the volume measures of benefit reserves and capital at risk.

Strategic risk is classified as non-material for the Insurance sector. R+V analyzes and forecasts national and global developments with an influence on business-related parameters on an ongoing basis. The findings are evaluated, for example in terms of customer needs, and are incorporated into the development of new insurance products.

3.4.3. Stress tests

In addition to the risk measurements, the effects of extreme but plausible events are also analyzed. Stress tests of this kind are used to establish whether the DZ BANK Group can retain its risk-bearing capacity, even under extreme economic conditions. Stress tests are carried out in respect of economic risk-bearing capacity, regulatory capital ratios, and liquidity.

3.4.4. Limitation principles

The DZ BANK Group has implemented a system of limits to ensure that risk-bearing capacity is maintained. The limits used may be risk limits or volume limits, depending on the type of transaction and type of risk. Whereas risk limits in all types of risk restrict exposure measured with an economic model, volume limits are applied additionally in transactions involving counterparties. Risk management is also supported by limits for relevant key performance indicators.

Specific amendments to risk positions based on an adjustment of the volume and risk structure in the underlying transactions are intended to ensure that the measured exposure does not exceed the approved volume and risk limits.

Risks that are incurred are compared with the limits allocated to them (upper loss limits) and monitored using a traffic-light system. In the context of liquidity adequacy, the limit system is used to monitor whether economic liquidity adequacy is assured both at DZ BANK Group level and at the level of the management units.

3.4.5. Hedging objectives and hedging transactions

Hedging activities are undertaken in order to transfer liquidity risk, credit risk, market risk, actuarial risk, and operational risk to the greatest possible extent to third parties outside the DZ BANK Group. All hedging activities are conducted within the strategic rules specified in writing and applicable throughout the group. Derivatives and other instruments are used to hedge credit risk and market risk.

If the hedging of risk in connection with financial instruments gives rise to **accounting** mismatches between the hedged items and the derivatives used for the hedge, the mismatches are either eliminated or reduced by designating the hedging transaction as a hedge in accordance with the hedge accounting requirements of IAS 39, or the fair value option is exercised. Hedge accounting in the DZ BANK Group includes hedging interest-rate risk and currency risk and therefore affects market risk in both the Bank and Insurance sectors. Hedging information is disclosed in note 82 of the notes to the consolidated financial statements.

DZ BANK has exercised the option provided for in section 254 HGB and has generally not recognized hedges on the balance sheet, although economic hedges do exist. However, one hedge is reported in note 41 of the notes to DZ BANK's separate financial statements.

3.4.6. Risk reporting and risk manual

The quarterly **overall risk report** includes the risks throughout the group identified by DZ BANK. Together with the **stress test report,** which is also compiled on a quarterly basis, and the **MaSan report**, which is prepared on a monthly and quarterly basis, the overall risk report is the main channel by which risks incurred by the DZ BANK Group and the management units are communicated to the Supervisory Board, the Board of Managing Directors, and the Group Risk and Finance Committee. In addition, the Board of Managing Directors receives portfolio and exposure-related management information as part of the quarterly **credit risk report**. The Board of Managing Directors also receives daily and monthly information on **liquidity risk** in the DZ BANK Group and in the management units. This information meets the disclosure requirements regarding the flow of risk-related information to the Board of Managing Directors specified in article 435 (2e) CRR.

DZ BANK and the main subsidiaries have further reporting systems for all relevant types of risk. Depending on the degree of materiality in the risk exposures concerned, the purpose of these systems is to ensure that decision-makers and supervisory bodies at all times receive transparent information on the risk profile of the management units for which they are responsible.

The **risk manual**, which is available to all employees of the management units, sets out the general parameters for identifying, measuring, assessing, managing, monitoring, and communicating risks. These general parameters are intended to ensure that risk management is properly carried out in the DZ BANK Group. The manual forms the basis for a shared understanding of the minimum standards for risk management throughout the group.

The main subsidiaries also have their own risk manuals covering special aspects of risk related specifically to these management units.

3.4.7. Risk inventory and appropriateness test

Every year, DZ BANK draws up a **risk inventory**, the objective of which is to identify the types of risk that are relevant for the DZ BANK Group and assess the materiality of these risk types. According to need, a risk inventory check may also be carried out at other times in order to identify any material changes in the risk profile during the course of the year. A materiality analysis is carried out for those types of risk that could arise in connection with the operating activities of the entities in the DZ BANK Group. The next step is to assess the extent to which there are concentrations of risk types classified as material in the Bank sector, the Insurance sector, and across sectors.

DZ BANK also conducts an annual **appropriateness test** at DZ BANK Group level. The appropriateness test may also be carried out at other times in response to specific events. The objective is to review the latest groupwide specifications for the analysis of risk-bearing capacity. In addition, the appropriateness test includes a number of other tests to assess whether the risk measurement methods used for all types of risk classified as material are in fact fit for purpose. Action is taken to modify the risk management tools, where required.

The risk inventory check and appropriateness test are coordinated in terms of content and timing. All management units in the DZ BANK Group are included in both processes. The findings of the risk inventory and the appropriateness test are incorporated into the risk management process.

Risk inventory checks and appropriateness tests are generally conducted in a similar way in the main subsidiaries.

4. OPPORTUNITIES

4.1. MANAGEMENT OF OPPORTUNITIES

The management of opportunities in the DZ BANK Group and at DZ BANK is integrated into the annual

strategic planning process. Strategic planning enables the group to identify and analyze market discontinuities based on different macroeconomic scenarios, trends, and changes in the markets, and forms the basis for evaluating opportunities. Identified opportunities are taken into account in the business strategies.

Details about the strategic planning process are presented in section I.3.4. of this (group) management report.

Reports on future business development opportunities are based on the outcome of the business strategies. As part of the general communication of the business strategies, employees are kept up to date about potential opportunities that have been identified.

4.2. POTENTIAL OPPORTUNITIES

4.2.1. Corporate strategy

DZ BANK's core functions as a central institution, corporate bank, and holding company mean that it focuses closely on the local cooperative banks, which are its customers and owners.

DZ BANK's **focus on the cooperative banks** is vital in view of the need to manage scarce resources and to meet new regulatory requirements. By focusing more closely on the Volksbanken Raiffeisenbanken cooperative financial network, DZ BANK's aim is to exploit the potential of its core activities more fully, particularly with regard to retail banking and SME business.

The principle of a '**network-oriented central institution and financial services group**' also means that business activities are concentrated on the business areas covered by the cooperative banks and on further enhancing the satisfaction levels of customers of the local cooperative banks. To this end, the DZ BANK Group, in its role as financial services provider, supplies decentralized products, platforms, and services.

The strategic focus of the DZ BANK Group, guided by the 'Verbund First' principle, is a significant contributing factor in helping the **cooperative banks to strengthen their market position**. The local cooperative banks therefore not only receive substantial financial support in the form of fees, commissions, and profit distributions, they also enjoy the transfer of cost benefits and the availability of competitive products and services.

The core activities referred to above are supplemented by **complementary activities** using existing products, platforms, and services, for which DZ BANK acts as a corporate bank vis-à-vis third parties. These activities do not compete directly with those of the cooperative banks and they enable further economies of scale to be created for the entire cooperative financial network.

The **merger** of DZ BANK and WGZ BANK, which is planned for 2016, is expected to create not only extensive synergies but also growth potential and earnings potential. The joint marketing activities and broader range of products and services are also expected to open up specific opportunities.

The **Outlook** section of the (group) management report describes expected developments in the market and business environment together with the business strategies and the implications for the financial performance forecast for 2016. These are crucial factors in the strategic positioning and the resulting opportunities for increasing earnings and cutting costs.

4.2.2. Digitization and demographic change

Digitization refers to developments that tap into the prevalence of mobile devices and internet-based services and that are supported by the consumerization of technologies, i.e. the availability of high-tech end devices to consumers. These developments are encouraging the intermediation of new competitors at the interface between customers and banking services.

As a consequence of the general advance of digitization across all areas of life, opportunities are opening up in relation to day-to-day banking business, especially payments processing. This trend is strengthened by **demographic change** and the resulting changes in the behavior of younger generations of customers. For example, increased use of mobile devices in payments processing means that particularly Germany – where paying in cash has generally continued to be more common than in other countries – is now seeing cash transactions being substituted with electronic payments processing. This may also lead to a reduction in the costs incurred by banks in relation to the supply and disposal of coins and notes.

The entities in the DZ BANK Group responded to these developments a while ago by increasing the innovative services that they offer. These included trialing the use of biometric processes by the payments processing provider Equens S.E., collaborating with iZettle on the development of a mobile point of sale, and implementing paydirekt, a cross-bank e-commerce payment process, in November 2015.

This portfolio of measures is helping the DZ BANK Group to drive the substitution of cash payments with mobile and other electronic payment processes so that it can participate in the move toward electronic payment transactions and seize opportunities for increasing its earnings. Furthermore, the Transaction Banking business line is working with universities and technology companies to test technologies and developments that may be of interest in the future – such as 'block chains' in payments processing and the securities business – and assess whether they are viable for use.

To underpin these measures, cross-sectoral innovation management, including an Innovation Roundtable, has been introduced in order to coordinate the group's innovation activities, monitor market trends, and launch targeted innovation projects.

4.2.3. Credit ratings

DZ BANK is awarded credit ratings by the three largest rating agencies, Standard & Poor's, Moody's, and Fitch. Individual subsidiaries of DZ BANK are also given their own ratings. In view of the high degree of cohesion within the cooperative financial network, Fitch and Standard & Poor's issue a network rating, for the purposes of which the cooperative financial institutions are analyzed on a consolidated basis. The criteria used by the agencies include factors such as strategy, risk assessment, transparency, and solidarity within the cooperative financial network in addition to business performance and collaboration.

The ratings are critical in determining the funding opportunities available on money and capital markets. They open up additional business options and potential opportunities for the entities in the DZ BANK Group.

During the year under review, the rating agencies reviewed the credit ratings issued for DZ BANK. Fitch raised the long-term credit rating to AA- and the credit rating for DZ BANK BRIEFE to AA+. Having adjusted its credit rating methodology, Moody's awarded a higher credit rating of Aa2 for DZ BANK's long-term credit rating for deposits and unsecured, non-subordinated bonds. The ratings awarded by Standard & Poor's dropped to AA+ for DZ BANK BRIEFE but otherwise remained unchanged. Figure 9 provides an overview of DZ BANK's credit ratings.

FIG. 9 – DZ BANK RATINGS

	Standard & Poor's		Moody's		Fitch	
	Dec. 31, 2015	Dec. 31, 2014	**Dec. 31, 2015**	Dec. 31, 2014	**Dec. 31, 2015**	Dec. 31, 2014
Long-term rating	AA-	AA-	Aa2	A1	AA-	A+
Covered bonds (DZ BANK BRIEFE)	AA+	AAA	–	–	AA+	AA
Short-term rating	A-1+	A-1+	P-1	P-1	F1+	F1+

As at December 31, 2015, the long-term credit rating for the cooperative financial network issued by Standard & Poor's remained unchanged at AA-. In the first half of 2015, Fitch raised the cooperative financial network's long-term credit rating from A+ to AA-.

5. GENERAL RISK FACTORS

5.1. MARKET AND SECTOR RISK FACTORS

The DZ BANK Group is subject to a range of risk factors that apply generally to the German and

European banking industry as a whole. These market and sector risk factors have an impact on liquidity adequacy and capital adequacy. For the most part, the factors can be classified under business risk but are addressed separately here because of their key importance for the DZ BANK Group.

5.1.1. Commercial-law environment

The financial position and financial performance of the DZ BANK Group are presented in accordance with International Financial Reporting Standards (IFRS). Changes to IFRS and the associated interpretations may lead to a discrepancy between the results and financial position that are reported in the future and the current forecasts, or changes to financial reporting standards that are introduced retrospectively may lead to differences between results shown for prior-year periods and the results that were previously published. Such changes may also have an impact on regulatory capital and the financial key performance indicators.

The entities in the DZ BANK Group observe potential changes to financial reporting and examine their possible effects.

DZ BANK Group faces material risks from a changed accounting standard in connection with the expected adoption of **IFRS 9 Financial Instruments** into European law. IFRS 9 replaces the existing standard on accounting for financial instruments (IAS 39). The reformed model for allowances for losses on loans and advances and new rules on the categorization of financial instruments, in particular, will result in a need to modify business processes and IT systems, greater volatility in the income statement going forward, and first-time adoption effects that will adversely affect equity. DZ BANK has set up a project to implement IFRS 9. It will only be possible to quantify the effects reliably at a later stage in the project.

5.1.2. Regulatory environment

BASEL IV

BCBS is currently preparing comprehensive new rules in some areas of regulatory risk determination ('Basel IV'). These new rules, which are likely to come into force in 2017, are expected to increase the capital requirements for the DZ BANK banking group and DZ BANK.

LEVERAGE RATIO

The CRR has introduced the principle of a leverage ratio for banks. This KPI shows the ratio of a bank's Tier 1 capital to its overall exposure. In contrast to risk-based capital requirements for which the assumptions are derived from models, the individual line items in the leverage ratio are not given their own risk weighting but are generally included in the KPI without any weighting at all. All banks have been subject to an obligation to report the leverage ratio since 2014. The disclosure requirement has applied since 2015.

A mandatory minimum value for the leverage ratio has not been specified at European level for now because its effect is to be analyzed in more detail in a monitoring phase up to June 30, 2016. A decision will then be made as to whether and at what level there is to be a mandatory minimum for the leverage ratio at European level.

The introduction of a mandatory minimum for the leverage ratio could lead to an additional capital requirement for the DZ BANK Group and/or DZ BANK based on the current volume of business. Implications for the DZ BANK Group's business model and competitive position cannot be ruled out either.

The disclosure of DZ BANK's leverage ratio and an assessment of this ratio by financial market players could also have an adverse impact on the external assessment of the bank's capital position and on DZ BANK's funding costs.

MINIMUM REQUIREMENT FOR OWN FUNDS AND ELIGIBLE LIABILITIES

EU directive 2014/59, which has been in force since January 1, 2016, has created the legal basis at European level for the new 'minimum requirement for own funds and eligible liabilities' (MREL) regulatory ratio. The finalized provisions on implementing this directive are not yet available.

The MREL is intended to ensure that banks hold a sufficiently large volume of capital and liabilities that can be 'bailed-in' to make it possible at all times to carry out an orderly resolution. 'Bail-in-able' liabilities are those that provide for creditors taking an equity interest if a bank gets into financial difficulties, enabling resolution to take place without recourse to government help and without jeopardizing the stability of the financial system.

The MREL ratio is the ratio of own funds and bail-in-able liabilities to the bank's total liabilities and own funds. The MREL ratio will be set individually for each institution by the resolution authorities on the basis of certain statutory criteria.

The EBA published a consultation paper in late 2015 that, among other things, detailed the specific assessment criteria for setting the MREL. The resolution authority has not yet formally set a specific MREL ratio for DZ BANK, so the impact of the MREL on the DZ BANK Group and DZ BANK cannot be gauged at present.

TOTAL LOSS-ABSORBING CAPACITY

Global systemically important banks are to be subject to additional requirements for their total loss-absorbing capacity. The total loss-absorbing capacity (TLAC) proposed in the new consultation paper issued by the FSB in November 2014 is intended to ensure that internationally important banks meet a minimum standard in proportion to their risk-weighted assets, guaranteeing an orderly resolution regardless of their systemic importance. Its scope of application may be extended in the future to domestic systemically important banks.

The FSB published the final TLAC recommendations for global systemically important banks at the end of 2015, based on the results of impact assessment studies. The minimum TLAC requirements are scheduled to come into force on January 1, 2019. The European Commission intends to present legislative proposals for implementing these requirements in the EU in 2016.

The impact of the TLAC on the DZ BANK Group and DZ BANK, and how the TLAC and MREL might impact on one another, cannot be gauged at present.

SUPERVISORY REVIEW AND EVALUATION PROCESS (SREP)

On December 19, 2014, the EBA published its Guidelines on Common Procedures and Methodologies for the Supervisory Review and Evaluation Process. The provisions contained in this document came into force on January 1, 2016. One of the aims being pursued by the EBA with SREP is the EU-wide harmonization of the supervisory review and evaluation process enshrined in Pillar 2 of Basel III. Harmonization is intended to create the same competitive conditions in the jurisdictions involved.

In 2015, the ECB conducted a supervisory review and evaluation process at DZ BANK for the first time. It cannot be ruled out that the new requirements will result in SREP differing substantially from current practice in the future. SREP could mean that the DZ BANK Group and DZ BANK are subject to additional capital and liquidity requirements. Similarly, the possibility of a negative impact on cost structures or implications for internal organizational structures, the risk management system, the business model, or competitive position cannot be ruled out.

STANDARDIZED DEFINITION OF BORROWER DEFAULT

On September 22, 2015, the EBA published a consultation paper on the definition of default in lending transactions. The consultation paper aims to harmonize the definition of default for the purposes of the Standardized Approach and the internal ratings-based (IRB) approaches and thus to standardize the capital requirements for credit risk. DZ BANK analyzed the planned new requirements and their impact and also participated in the qualitative and quantitative impact study. Changes to the default history and associated effects on the credit rating systems – including the possible need for recalibration – cannot be ruled out. This could lead to higher regulatory capital requirements and an increase in the credit value-at-risk.

CAPITAL REQUIREMENTS FOR MARKET RISK

Based on the experience of the financial crisis, the BCBS published its second consultative document in October 2013, followed by its third consultative document ('outstanding issues') in December 2014, on the Fundamental Review of the Trading Book. They set out plans for a fundamental revision of the existing rules for capital requirements in relation to market risk in the trading book.

Significant new features include a revision of the boundary between the trading book and banking book, the introduction of a new standardized approach, a complete revision of the risk measurement approach for the internal market risk model, and more stringent criteria for the approval of internal market risk models. The plans are also aiming for greater integration between the Standardized Approach and internal models-based approaches. The consequence of this is that DZ BANK, which is a bank with an internal model, will have to reintroduce the Standardized Approach in the future and will be subject to a mandatory requirement to use this approach to calculate the capital requirement for market risk in the trading book alongside its calculations using the internal model.

It is likely that the Fundamental Review of the Trading Book will lead to far-reaching, time-consuming, and costly changes relating to the calculation of capital requirements for market risk in the trading book. This applies not only to banks such as DZ BANK with internal models, but also to all banks in the DZ BANK Group that have to introduce the new Standardized Approach.

The date on which these new requirements are expected to come into force is not yet known for certain. They are currently expected to take effect at the start of 2018. The implementation of the new requirements could mean that the DZ BANK Group and DZ BANK are subject to an additional capital requirement. Similarly, the possibility of a negative impact on cost structures or implications for organizational structures, the risk management system, the business model, or competitive position cannot be ruled out.

RISK DATA MANAGEMENT

In January 2013, the BCBS published principles for effective risk data aggregation and risk reporting. The principles aim to increase aggregation capability for all risk data used for internal risk management and to improve the risk management and decision-making processes (including internal risk reporting) at banks. The requirements must be implemented by global systemically important banks (G-SIBs) by the end of 2016. For domestic systemically important banks, the principles come into force three years after classification as a domestic systemically important bank (D-SIB). BaFin is also planning to incorporate some of the regulations on risk data management into national rules with the amendment of MaRisk BA, which was put out for consultation in February 2016.

The implementation of the new requirements, and possibly also inadequate implementation, could involve changes to the DZ BANK Group's business model (and that of DZ BANK), have a negative effect on their competitive position, or result in the need for additional capital. Moreover, it is impossible to gauge whether the principles will be implemented in the original form proposed by the BCBS or in some amended form.

AMENDMENT OF BUILDING SOCIETY LEGISLATION

Lawmakers have responded to the sustained low level of interest rates in the capital markets by bringing in a new version of the German Building and Loan Associations Act (BauSparkG) and a related regulation. The amendment mainly extends the non-collective investment options for surplus collective funds and broadens the intended use of the fund for home savings risk. It also confirms the specialty principle of building societies, according to which only building societies are permitted to conduct building society operations. The amended rules came into force in December 2015. There have not been any consequences for economic capital adequacy or the risk situation.

SOLVENCY II

Solvency II defines requirements for capital adequacy, risk management, and a standardized reporting system for insurance companies that has been applicable throughout the EU since January 1, 2016. The new system of supervision is intended to facilitate more flexible regulation using a stronger principles-based and risk-based approach.

As far as R+V is concerned, Solvency II gives rise to significant changes in capital requirements and in the measurement of assets and liabilities. R+V also has to comply with additional rules on business organization and further reporting and disclosure obligations. Other changes relate to the group requirements. There are additions to applicable investment principles in that entities must now cover their investments with capital in an amount commensurate with the risk content of the individual investments.

INSTANT PAYMENTS

The Euro Retail Payments Board, the ECB, and the European Commission have been deliberating on instant payments, a new system of payments processing, since late 2014, the details of which are now being defined by the European Payments Council. In the DZ BANK Group, instant payments particularly affect DZ BANK, which has initiated the necessary measures to comply with the new requirements. In particular, DZ BANK has begun projects to assess the opportunities and risks associated with this new technology and to implement the aforementioned measures. Delayed or inadequate implementation of the requirements could lead to sanctions being imposed by the banking regulator and to reputational damage.

OTHER REGULATORY RISK FACTORS

In addition to the regulatory requirements described above, the following initiatives may give rise to risks for DZ BANK:

- EU Crisis Management Directive
- Single Supervisory Mechanism
- Reform of deposit protection schemes
- Classification of DZ BANK as a D-SIB
- German Act on Ringfencing and Recovery and Resolution Planning for Credit Institutions and Financial Groups
- EU directive on structural reforms for banks
- Financial transaction tax
- Publication of the findings of regulatory audits

5.1.3. Macroeconomic risk factors

ECONOMIC TRENDS

The business performance of the DZ BANK Group and of DZ BANK is particularly influenced by Germany's economic position and the situation in financial and capital markets. Besides regular fluctuations in demand and production, extraordinary or unparalleled events can play a particular role. For example, the German economy continues to be affected by the sovereign debt crisis in Europe. Germany's export-driven economy is highly dependent on international trade. A persistent period of weak growth, stagnation, or a sharp downturn in international trade would cause a drop in production and a correspondingly lower level of demand for finance from businesses.

EUROPEAN SOVEREIGN DEBT CRISIS

During the year under review, trends in international financial markets continued to be shaped by the fallout from the global financial crisis and central banks' expansionary monetary policy. Global economic growth and, in particular, the situation in financial markets saw a further slight improvement, but the economy, the confidence of financial market players, and the extent of customer activity in the banking business all continue to be affected by the consequences of the sovereign debt crisis and, in particular, by the monetary policy response.

The economies of eurozone countries **Portugal**, **Italy**, **Ireland**, **Greece**, and **Spain** continue to be characterized by government debt levels that are high in relation to gross domestic product and are still proving difficult to bring down. Consequently, these countries remain vulnerable to fluctuation in investors' risk assessments.

Nevertheless, it is evident that all of the countries except Greece have made substantial progress in consolidating their budgets and achieving economic stability. Their economies are growing again, and what were previously high current account deficits have been replaced by surpluses. **Ireland** returned to the international financial markets, having exited the bailout under the European Stability Mechanism in January 2014. After completing its bailout program, **Portugal** was able to place long-term issues in the capital markets once again in May 2014.

The financial position of **Greece** is still considered precarious. Even after the approval of a new three-year bailout from the European Stability Mechanism in August 2015, Greece's solvency is not assured and there is no guarantee that Greece will stay in the eurozone. 'Grexit' could lead to turbulence in the international financial markets, which would potentially have a negative impact on the countries of the eurozone.

OTHER GLOBAL TROUBLE SPOTS

The situation is currently also problematic in **Russia**, where the economic downturn that had started in 2013 led to a recession in 2015. The main factors behind this trend were the conflict in Ukraine and the resultant international sanctions, the steady fall in world market prices for oil, and the collapse in the value of the rouble. Because their access to the capital markets is severely restricted, banks and companies are increasingly calling on the government for funding. However, the low oil price is slashing revenue, because two-thirds of Russian exports are based on oil and gas.

The support buying undertaken by the Russian Federation's central bank to slow the fall in the rouble has further depleted foreign currency reserves. The decrease in currency reserves is likely to continue in 2016.

RISK IMPACT

The European sovereign debt crisis and developments in other global trouble spots have an impact on various risks to which the DZ BANK Group and DZ BANK are exposed. In the Bank sector, this affects credit risk (deterioration in the credit quality of public-sector bonds, increase in the allowances for losses on loans and advances), equity investment risk (increased requirement for the recognition of impairment losses on the carrying amounts of investments), market risk (increase in credit spreads, reduced market liquidity), business risk (contraction in the demand for bank loans), reputational risk (standing of the banking industry), and liquidity risk (a combination of the effects mentioned above).

In the Insurance sector, market risk is most affected by the European sovereign debt crisis. A widening of credit spreads on government bonds or other market investments would lead to a drop in fair values. Present value losses of this nature could have a temporary or permanent adverse impact on operating profit or equity.

ENVIRONMENT OF LOW INTEREST RATES

With interest rates at a historically low level, interest receivable on loans is low and the interest margin is relatively narrow, restricting the opportunities for earning income in **traditional banking business**.
A risk scenario involving a very long period of low interest rates, possibly combined with a deflationary trend, would therefore also have a considerable negative impact on the performance of the DZ BANK Group and DZ BANK.

If there is a long period of low interest rates, the DZ BANK Group could face the risk of lower earnings, including lower earnings from BSH's extensive **building society operations**. When interest rates are very low, home savings loans lose their appeal for customers, while high-interest home savings deposits become more attractive. Consequently, interest income on home savings loans would fall and the interest cost for home savings deposits would rise. Furthermore, the liquidity they provide could only be invested at low rates of return, an additional factor depressing earnings. The introduction of a new generation of home savings rates in November 2015 is continuing to gradually mitigate the risk from the lower level of interest rates.

The entire **insurance industry** is affected by the historically low interest rates in the capital markets, which may even be reduced further owing to the risk of deflationary trends. This environment of persistently low interest rates is adversely affecting personal insurance providers in the short and medium term because they have to recognize supplementary change-in-discount-rate reserves. However, recognizing these additional reserves puts in place key, long-term prerequisites for limiting risk in life insurance and pension insurance business.

Given the long period of low interest rates, the challenge faced by the DZ BANK Group's extensive **asset management activities**, brought together under UMH, is to ensure that the guarantee commitments given to customers in respect of individual funds can actually be met from the funds concerned. This particularly affects the UniProfiRente product and the guarantee fund product group. UniProfiRente is a retirement pension solution certified and subsidized by the German government (known in Germany as a Riester pension). The amounts paid in during the contributory phase and the contributions received from the government are guaranteed to be available to the investor at the pension start date. The pension is then paid out under a payment plan with a subsequent life annuity. Guarantee funds are products for which UMH guarantees that a minimum percentage of capital is preserved, depending on the precise product specification. The DZ BANK Group faces the risk that it could have to waive some of the management fee in order to meet the guarantee commitments. If this risk were to materialize, it could have a considerable negative impact on the financial performance of the DZ BANK Group.

A rapid **rise in interest rates** on capital markets could also involve some risks. The pricing losses on fixed-income securities and necessary remeasurement of low-interest long-term lending business that could result from such an upturn could have a detrimental impact on the earnings of the DZ BANK Group.

A long period of low interest rates also increases the risk of **incorrect valuations in financial markets**.

5.2. OVERARCHING BANK-RELATED RISKS

The DZ BANK Group is exposed to bank-specific risk factors that have an impact on liquidity risk and on risks backed by capital. These factors are described below. They are generally taken into account as part of the bank's overall risk management.

5.2.1. Shortcomings in the risk management system

Regardless of the fundamental suitability of the risk measurement procedures used in the DZ BANK Group and at DZ BANK, it is conceivable that there may be circumstances in which risks cannot be identified in good time or in which a comprehensive, appropriate response to risks is not possible. Despite careful development of models and regular reviews, situations may arise in which actual losses or liquidity requirements are higher than those calculated in the risk models and stress scenarios.

For any given confidence level, the value-at-risk used for determining the risk capital requirement can be significantly influenced by extreme events for which the probability of occurrence is low. However, estimates for such rare events are generally subject to a great deal of uncertainty (referred to as model risk). Moreover, there are no comprehensive historical observations in most cases for extreme losses of this nature, which makes it more difficult to validate any models. Key input parameters for measurement models are also subject to uncertainty, because they are already estimates themselves.

The measurement of liquidity risk is subject to similar model risk related to the design of models and parameters and their validation. In addition, risks arising from scenarios that extend beyond the risk tolerance for serious crises set by the Board of Managing Directors are accepted and are therefore not taken into account for risk management purposes.

Despite continuously reviewing crisis scenarios, it is simply not possible to set down a definitive record of all economic conditions that could potentially have a negative impact. Therefore, an analysis of crisis scenarios in stress tests cannot guarantee that there will not be other crisis situations that could lead to greater losses or liquidity needs.

5.2.2. Rating downgrades

If DZ BANK's credit rating or the network rating for the cooperative financial network were to be downgraded, this would have a negative impact on the costs of raising equity and of borrowing. As a result, new liabilities could arise, or liabilities dependent on the maintenance of a specific credit rating could become due for immediate payment.

DZ BANK's credit rating is an important element in any comparison with competitor banks. It also has a significant impact on the ratings for DZ BANK's main subsidiaries. A downgrade or even just the possibility of a downgrade in the rating for DZ BANK or one of its subsidiaries could have a detrimental effect on the relationship with customers and on the sale of products and services.

Furthermore, if a rating downgrade were to occur, the DZ BANK Group or DZ BANK could face a situation in which it had to furnish additional collateral in connection with rating-linked collateral agreements for derivatives (regulated by the Credit Support Annex or Collateralization Annex) or in which it was no longer considered a suitable counterparty for derivative transactions at all. If the credit rating for DZ BANK or one of its subsidiaries were to fall out of the range covered by the top four rating categories (investment grade ratings, disregarding rating subcategories) the operating business of DZ BANK or the subsidiary concerned, and therefore also the funding costs for all the other management units in the group, could suffer an adverse impact.

5.2.3. Hedge ineffectiveness

The DZ BANK Group and DZ BANK are exposed to the risk that a counterparty in a hedge could become insolvent and therefore no longer be in a position to meet its obligations. Consequently, the hedge could prove to be ineffective and the DZ BANK Group or DZ BANK would then be exposed to risks that it believed it had hedged.

Unforeseen market trends could undermine the effectiveness of action taken to hedge market risk. One example is the risk in connection with the financial crisis and sovereign debt crisis. In this case, the DZ BANK Group or DZ BANK would only be able to minimize some of this risk with great difficulty; it may not be possible to hedge some of the risk at all. One of the particular factors to take into account is that some of the quantitative measurement methods and key risk indicators in the risk management system are based on past experience. Furthermore, the quantitative risk management system does not encompass all risks and makes assumptions about the market environment that are not based on specific events. It is conceivable there could be market scenarios in which the measurement methods and key risk indicators used do not forecast certain potential losses correctly, resulting in miscalculations.

In the context of the management of market risk, use is made of credit derivatives, comprising credit-linked notes, credit default swaps, and total return swaps, in order to reduce the issuer risk attaching to bonds and derivatives. Macro hedges are used dynamically to mitigate spread risk and risks attaching to underlying assets. In isolated cases, transactions are conducted on a back-to-back basis. If these instruments and measures turn out to be ineffective or only partially effective, it is possible that the DZ BANK Group and/or DZ BANK could incur losses against which the instruments or measures ought to have provided protection. Moreover, hedging activities give rise to costs and may result in additional risks. Gains and losses arising from ineffective risk hedges can increase the volatility of the earnings generated.

5.2.4. Economic liquidity and capital adequacy after the merger

As part of the planned merger, the portfolios of the DZ BANK Group and the WGZ BANK Group will be combined in 2016. This may result in diversification effects and concentration effects that will probably mean that the key risk indicators of the merged central institution group will not simply be the sum of the risks of the two central institution groups when considered in isolation. Owing to the consolidation effects under commercial law, it is expected that the available internal capital of the merged central institution group will not equal the sum of the values calculated separately for the DZ BANK Group and the WGZ BANK Group.

The overall effect of these merger-related changes on the economic liquidity adequacy and capital adequacy of the merged central institution group cannot yet be reliably quantified. Nevertheless, based on current knowledge, it is assumed that both the economic liquidity adequacy and the economic capital adequacy of the merged central institution group will be around the level calculated for the DZ BANK Group as at December 31, 2015.

6. LIQUIDITY ADEQUACY

6.1. PRINCIPLES

The management of liquidity adequacy is an integral component of business management in the DZ BANK Group and at DZ BANK. Liquidity adequacy is understood to be the holding of sufficient liquidity reserves. It is considered from both an economic and a regulatory perspective. Whereas the economic perspective implements the requirements of MaRisk BA, the regulatory perspective applies the Basel III requirements.

Economic liquidity adequacy is managed on the basis of the internal liquidity risk model, which takes account of the impact on liquidity of other risks when measuring liquidity risk. The DZ BANK Group fulfills the regulatory liquidity adequacy requirements by managing economic liquidity adequacy.

The entities relevant for determining economic liquidity adequacy are DZ BANK and the following management units: BSH, DG HYP, DVB, DZ PRIVATBANK, TeamBank, and VR LEASING.

Owing to the close ties between management of economic liquidity adequacy at DZ BANK and that of the DZ BANK Group, the information below on economic liquidity adequacy also applies to DZ BANK.

6.2. ECONOMIC LIQUIDITY ADEQUACY

6.2.1. Risk definition and risk factors

RISK DEFINITION

Liquidity risk is the risk that cash and cash equivalents will not be available in sufficient amounts to ensure that payment obligations can be met. Liquidity risk thus has the character of insolvency risk.

RISK FACTORS

Liquidity risk arises from a mismatch in the timing and amount of cash inflows and outflows. The following key factors affect the level of liquidity risk:

- the funding structure of lending transactions;
- the uncertainty surrounding liquidity tied up in the funding of structured issues and investment certificates with termination rights and obligation acceleration;
- changes in the volume of deposits and loans, in which the cash-pooling function in the cooperative financial network is a significant determining factor;
- the funding potential in money markets and capital markets;
- the fluctuations in fair value and marketability of securities, and the eligibility of such securities for use in collateralized funding arrangements, such as bilateral repos or transactions in the tri-party market;
- the potential exercise of liquidity options, such as drawing rights in irrevocable loan or liquidity commitments, and termination or currency option rights in lending business;
- the obligation to pledge collateral in the form of cash or securities (for example, for derivative transactions or to guarantee payments as part of intraday liquidity).

Liquidity risk also arises from changes to an entity's own rating if contractual requirements to provide collateral depend on the rating.

6.2.2. Risk strategy

The entities in the DZ BANK Group operate on the principle that the assumption of liquidity risk is only permitted if it is considered together with the associated opportunities and complies with the **risk tolerance** specified by the Board of Managing Directors. Solvency must be ensured, even in times of serious crisis. Risk tolerance is expressed in the form of crisis scenarios, and stress tests must demonstrate that there is adequate cover for these scenarios. The crisis scenarios also take into account the specific MaRisk BA requirements for the structure of stress scenarios at capital-market-oriented banks.

However, further extreme scenarios are not covered by the risk tolerance. The risks arising in this regard are accepted and therefore not taken into account in the management of risk. Examples of such scenarios are a run on the bank, i.e. an extensive withdrawal of customer deposits as a result of damage to the reputation of the banking system, or a situation in which all non-collateralized funding sources on money markets completely dry up over the long term, also encompassing transactions with those corporate customers, institutional customers, and customer banks that have close ties to the entities in the DZ BANK Group. On the other hand, the risk of a temporary interruption in unsecured money market funding is not accepted and this risk is the subject of relevant stress scenarios.

Liquidity reserves in the form of liquid securities are held by the entities so that they can remain solvent, even in the event of a crisis. **Potential sources of funding** in the secured and unsecured money markets are safeguarded by maintaining a broadly diversified national and international customer base comprising customers such as corporates, institutions, and banks. This is achieved with active market and customer support, intensively maintained customer relationships, and an excellent reputation in the money markets. The local cooperative banks also provide a significant and stable source of funding.

The liquidity risk strategy is consistently aligned with the overall **business strategies** and to this end is reviewed at least once a year and adjusted as necessary.

6.2.3. Organization, responsibility, and risk reporting

ORGANIZATION AND RESPONSIBILITY

The strategic guidelines for the management of liquidity risk by the entities in the DZ BANK Group are established by the **Group Risk and Finance Committee**. At the level of DZ BANK, this is the responsibility of the Treasury and Capital Committee.

Liquidity risk control in the DZ BANK Group is coordinated by the Group Risk Management working group and carried out independently of the units in Risk Controlling at DZ BANK that are responsible for liquidity risk management. The risk data calculated by the subsidiaries on the basis of intra-group guidelines is aggregated to provide a group perspective.

RISK REPORTING

Liquidity up to 1 year and structural liquidity of 1 year or more are reported on a daily basis to the **Responsible Board Members** of DZ BANK responsible for liquidity risk management and liquidity risk control. The **Board of Managing Directors** receives a monthly report on the current liquidity risk situation and the changes over the previous month.

The DZ BANK **Treasury** unit and the units in the subsidiaries responsible for the management of liquidity risk also receive detailed daily information showing the contribution from each individual position to the aggregate position.

The **Group Risk and Finance Committee** receives a quarterly report on the liquidity risk of the DZ BANK Group and the individual management units.

The **entities in the DZ BANK Group** have their own corresponding reporting procedures that help to manage and monitor liquidity risk at individual entity level.

Group Treasury is informed on a daily basis of the largest providers of liquidity to DZ BANK in the unsecured money markets. This is reported to the **Treasury and Capital Committee** and the **Board of Managing Directors** on a monthly basis. The reports make a distinction between customers and banks and relate to DZ BANK in Frankfurt and to each foreign branch. These reports ensure that any possible concentration risk as regards sources of liquidity can be clearly identified at an early stage.

6.2.4. Measurement of liquidity risk

The units responsible for liquidity risk management at the entities in the DZ BANK Group ensure and monitor **intraday liquidity** by constantly managing accounts held with central banks and correspondent banks in Germany and abroad. To this end, the intraday cash flows at DZ BANK for each trading day are broken down by time of day; the collateral required to execute the payments is also measured. This allows DZ BANK to identify any payment concentrations during the course of a day as quickly as possible. The measurement results are also used to model the collateral required for intraday liquidity as part of the overall measurement of liquidity risk.

Within the DZ BANK Group, the biggest intraday cash flows are at DZ BANK.

To determine liquidity risk for a **1-year time horizon**, DZ BANK uses its own liquidity risk measurement and control method approved by BaFin in accordance with section 10 of the German Liquidity Regulation (LiqV) for the assessment of adequate liquidity in accordance with section 2 LiqV in place of the standard regulatory method.

The internal liquidity risk model is also used to determine the liquidity risk at DZ BANK Group level. All entities in the DZ BANK Group with a significant impact on liquidity risk are integrated into the model, which is used to simulate one risk scenario and four stress scenarios a day. The model also covers the liquidity risk arising from short-term funding of the asset-backed commercial paper programs (ABCP programs).

A **minimum liquidity surplus** figure is calculated for each scenario. This figure quantifies the minimum surplus cash that would be available if the scenario were to materialize suddenly within the next 12 months. To carry out this calculation, cumulative cash flow (forward cash exposure) is compared against available liquidity reserves (counterbalancing capacity) on a day-by-day basis.

Forward cash exposure includes both expected and unexpected payments.

The **counterbalancing capacity** includes balances on nostro accounts, liquid securities, and unsecured funding capacity with customers, banks, and institutional investors. By including the counterbalancing capacity, the calculation of the minimum liquidity surplus already takes into account the effect on liquidity of the measures that could be implemented to generate liquidity in each scenario. These measures include collateralized funding of securities in the repo market.

Stress tests are conducted for the forward cash exposure and for the counterbalancing capacity using the following four scenarios with defined limits: ‘downgrading’, ‘corporate crisis’, ‘market crisis’, and ‘combination crisis’. The stress scenarios look at sources of crises in both the market and the institution itself. A combination of market-specific and institution-specific sources is also taken into consideration. In crisis scenarios with institution-specific causes, such as a deterioration in the institution’s reputation, it is assumed for example that it will be very difficult to obtain unsecured funding from customers, banks, and institutional investors in the 1-year forecast period. The simulated event in each stress scenario represents a serious deterioration in conditions.

In addition to the existing stress scenarios with already defined limits, foreign currency stress tests simulate what would happen if the currency swap market also defaulted. The currencies in the major locations are examined (US dollar, pound sterling, Swiss franc, Hong Kong dollar, Singapore dollar). The currency limits relate only to the critical first month.

Further stress scenarios in addition to the scenarios with defined limits are analyzed, and an **inverse stress test** is carried out and reported on a monthly basis.

The internal liquidity risk model is constantly revised as part of an **appropriateness test** and adjusted in line with changes in the market, products, and processes. The appropriateness test is conducted for each entity in the DZ BANK Group and aggregated at group level.

6.2.5. Risk management

MANAGEMENT OF LIMITS FOR LIQUIDITY RISK

Liquidity risk limits are set with the aim of ensuring economic liquidity adequacy. They are based on the minimum liquidity surplus calculated for the four stress scenarios with defined limits. The Board of Managing Directors of DZ BANK has set a **limit** for liquidity risk and an **observation threshold** that is higher than the limit. At the level of the entities in the DZ BANK Group, the Board of Managing Directors of DZ BANK has set only one limit for each entity in the group. The liquidity risk control function at DZ BANK monitors the limits and observation threshold.

The limit system ensures that the DZ BANK Group remains solvent even in serious stress scenarios. **Emergency liquidity plans** are in place so that the group is able to respond to crisis events rapidly and in a coordinated manner. The emergency plans are revised annually.

LIQUIDITY RISK MITIGATION

Measures to reduce liquidity risk are initiated by the treasuries of the management units as part of their liquidity management function. Active liquidity risk management is made possible by holding a large number of instruments in the form of cash and liquid securities, and by managing the maturity profile of money market and capital market transactions.

LIQUIDITY TRANSFER PRICING SYSTEM

The DZ BANK Group aims to use liquidity – which is both a resource and a success factor – in line with opportunities and risks. Based on the liquidity transfer pricing system using internal prices charged by the units generating liquidity and paid by those consuming liquidity, costs relating to liquidity are allocated among the entities in the DZ BANK Group. Care is taken to ensure that the transfer prices are consistent with risk measurement and risk management.

Transfer prices are generally set at DZ BANK for the liquidity costs of loans, loan commitments, deposits, securities, own issues, investment certificates, and collateral for derivatives business. The transfer pricing system takes into account the maturity period and market liquidity of the products and has a significant impact on risk/return management. Major refinements to the transfer pricing system were carried out in 2015.

6.2.6. Quantitative variables

The available liquid securities and the unsecured short-term and medium-term funding are the main factors determining the minimum liquidity surplus. Additional contractual obligations that would be owed if DZ BANK's own rating were downgraded also play a role in the measurement of liquidity risk. These factors are presented below.

LIQUID SECURITIES

Liquid securities, together with balances on nostro accounts and non-collateralized funding capacity, form the **counterbalancing capacity**. Liquid securities are largely held in the portfolios of the treasury units at the entities in the DZ BANK Group or in the portfolios held by DZ BANK's Capital Markets Trading division. Only bearer bonds are eligible as liquid securities.

Liquid securities comprise highly liquid securities that are suitable for collateralizing funding in private markets, securities eligible as collateral for central bank loans and other securities that can be liquidated in the 1-year forecast period that is relevant for liquidity risk.

Securities are only eligible provided they are not pledged as collateral, e.g. for secured funding. Securities that have been borrowed or taken as collateral for derivatives business or in connection with secured funding, only become eligible when they are freely transferable. Eligibility is recognized on a daily basis and also takes into account factors such as restrictions on the period in which they are freely available.

Figure 10 shows the liquidity value of the liquid securities that would result from secured funding or if the securities were sold. To improve the information used for management purposes, internal transactions have been offset against each other since the start of 2015. The disclosures on the securities received and provided as collateral as at December 31, 2014 are therefore not fully comparable with the corresponding disclosures as at December 31, 2015.

As at December 31, 2015, the total liquidity value at the level of the **DZ BANK Group** totaled €54.0 billion (December 31, 2014: €49.5 billion). The total liquidity value attributable to **DZ BANK** as at December 31, 2015 was €42.1 billion (December 31, 2014: €38.2 billion).

Consequently, liquid securities represent the largest proportion of the counterbalancing capacity for both the DZ BANK Group and DZ BANK, and make a major contribution to ensuring that they remain solvent in the stress scenarios with defined limits at all times during the relevant forecast period. In the first month, which is a particularly critical period in a crisis, liquid securities are almost exclusively responsible for maintaining solvency in the stress scenarios with defined limits.

FUNDING AND LIQUIDITY MATURITIES

The level of liquidity risk in the DZ BANK Group and at DZ BANK is determined by the short-term and medium-term funding structure. The main sources of funding on the unsecured money markets are shown in figure 11. The change in the composition of the main sources of funding compared with December 31, 2014 is attributable to a change in the behavior of customers and investors resulting from money market policy implemented by the ECB.

FIG. 10 – LIQUID SECURITIES

€ billion	Dec. 31, 2015	Dec. 31, 2014
Liquid securities eligible for GC Pooling (ECB Basket)[1]	**37.1**	**34.7**
Securities in own portfolio	31.2	33.8
Securities received as collateral	12.5	43.3
Securities provided as collateral	-6.6	-42.3
Liquid securities eligible as collateral for central bank loans	**11.8**	**10.7**
Securities in own portfolio	10.3	10.2
Securities received as collateral	3.7	7.5
Securities provided as collateral	-2.2	-7.0
Other liquid securities	**5.1**	**4.1**
Securities in own portfolio	4.9	3.9
Securities received as collateral	0.4	1.7
Securities provided as collateral	-0.2	-1.5
Total	**54.0**	**49.5**
Securities in own portfolio	46.5	47.8
Securities received as collateral	16.5	52.6
Securities provided as collateral	-9.0	-50.8

1 GC = general collateral, ECB Basket = eligible collateral for ECB funding.

FIG. 11 – UNSECURED SHORT-TERM AND MEDIUM-TERM FUNDING

	DZ BANK Group		DZ BANK	
%	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Local cooperative banks	46	42	49	46
Other banks, central banks	12	14	10	13
Corporate customers, institutional customers	10	18	8	17
Commercial paper (institutional investors)	32	26	32	24

Further details on funding are provided in the business report (section II.5. ('financial position') of the (group) management report).

The maturity analysis of contractual cash inflows and cash outflows is set out in note 84 of the notes to the consolidated financial statements. The cash flows in these disclosures are not the same as the expected and unexpected cash flows used for internal management purposes in the DZ BANK Group.

ADDITIONAL CONTRACTUAL OBLIGATIONS

Some OTC collateral agreements that entities in the DZ BANK Group have concluded contain rating-based triggers. A downgrade in an entity's own credit rating would trigger collateral calls by counterparties. Because this collateral would no longer be available to generate liquidity if it were called in, the stress scenarios also include deductions arising from these additional contractual obligations.

Figure 12 shows the additional collateral across all currencies that would have to be provided to counterparties should **DZ BANK**'s credit rating be downgraded. The table reflects the situation in virtually the entire **DZ BANK Group** because the additional contractual obligations of the other entities in the group to provide further collateral are negligible.

The changes in the additional contractual obligations compared with December 31, 2014 were mainly the result of the improvement in DZ BANK's credit rating. This led to the return of collateral that had been provided, which thus increased liquidity. However, a simulated downgrade, e.g. by one notch, would require collateral in an amount of €75 million to be provided again. Other reasons for the differences compared with December 31, 2014 are new transactions, changes in market value, reductions in notional amounts, and the inclusion of short-term credit ratings as a trigger.

Additional contractual obligations represent only a minimal liquidity risk that is already covered by the stress scenarios with defined limits.

6.2.7. Risk position

Figure 13 shows the results of measuring liquidity risk as at December 31, 2015 (and at December 31, 2014) in the four stress scenarios with defined limits. The results are based on a daily calculation and comparison of forward cash exposure and counterbalancing capacity. The values reported are the values that occur on the day on which the liquidity surplus calculated over the forecast period of 1 year is at its lowest point.

The minimum liquidity surplus for the **DZ BANK Group**, measured as at the reporting date on the basis

FIG. 12 – ADDITIONAL CONTRACTUAL OBLIGATIONS

	One-notch deterioration in credit rating		Two-notch deterioration in credit rating		Three-notch deterioration in credit rating	
€ million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Additional contractual obligations based on collateral agreements	115	11	188	155	840	576

FIG. 13 – LIQUIDITY UP TO 1 YEAR IN THE STRESS SCENARIOS WITH DEFINED LIMITS – FIGURES FOR THE DAY WITH THE LOWEST LIQUIDITY SURPLUS

	Forward cash exposure		Counterbalancing capacity		Liquidity surplus	
€ billion	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Downgrading	-54.8	-40.4	71.6	63.4	16.8	23.0
Corporate crisis	-53.1	-48.3	62.0	60.7	8.9	12.4
Market crisis	-51.2	-30.9	70.8	51.0	19.6	20.1
Combination crisis	-31.4	-30.1	45.8	41.5	14.5	11.4

of a forecast period of 1 year for the stress scenario with defined limits that had the lowest minimum liquidity surplus, was €8.9 billion as at December 31, 2015 (December 31, 2014: €11.4 billion). During the year under review, liquidity did not fall below the observation threshold of €4.0 billion or the limit of €1.0 billion for the minimum liquidity surplus in any of the scenarios with defined limits. The observation threshold and limit were unchanged compared with December 31, 2014.

The minimum liquidity surplus measured for **DZ BANK** as at December 31, 2015 was €4.0 billion (December 31, 2014: €1.9 billion). This value is derived from the stress scenario with defined limits that had the lowest minimum liquidity surplus and relates to the one-month forecast period defined for the limit. The minimum liquidity surplus did not fall below the limit at any time in the year under review. The impact of the stress scenarios for DZ BANK is measured and analyzed precisely for each day and is taken beyond the limit period of 1 month right up to 1 year.

The results show that the minimum liquidity surplus as at December 31, 2015 was positive in the stress scenarios with defined limits that were determined on the basis of risk tolerance. This is due to the fact that the counterbalancing capacity was greater than the cumulative cash outflows on each day of the defined forecast period for each scenario, which indicates that the cash outflows assumed to take place in a crisis can be comfortably covered.

6.2.8. Possible impact from crystallized liquidity risk

One of the main operating activities of the management units is to make long-term liquidity available to their customers for different maturity periods and in different currencies, for example in the form of loans. The units generally organize their **funding** to match these transactions that tie up liquidity. Any funding needs that are not covered by the local cooperative banks are met by obtaining additional funding in the money and capital markets, with the deposit base from money market funding reducing the need for long-term funding. When funding matures, it is therefore possible that the replacement funding required to fund transactions with longer maturities has to be obtained at unfavorable terms and conditions.

The entities in the DZ BANK Group are also exposed to the risk that the **minimum liquidity surplus** will fall below the observation threshold or the limit. If it repeatedly falls below the observation threshold, there is an increased risk that the group would subsequently not be able to keep within the limit. If the minimum liquidity surplus were to fall below the limit for an extended period, the possibility of reputational damage and a ratings downgrade could not be ruled out.

Crystallization of liquidity risk causes an unexpected reduction in the liquidity surplus, with negative consequences for an institution's financial position. If a crisis were to occur in which the circumstances were more serious or the combination of factors were significantly different from those assumed in the stress scenarios, there would be a risk of insolvency.

6.3. REGULATORY LIQUIDITY ADEQUACY

6.3.1. Regulatory framework

Internal liquidity risk management is supplemented by the regulatory liquidity coverage ratio (LCR) in the Basel III framework, which was transposed into law with the CRR and Delegated Regulation 2015/61 (Delegated Regulation), and by the net stable funding ratio (NSFR), which is based on the Basel III framework (BCBS 295) and is required to be reported under article 510 CRR.

The **liquidity coverage ratio** (LCR) has a short-term focus and is intended to ensure that institutions can withstand a liquidity stress scenario lasting 30 days. This KPI is defined as the ratio of available high-quality liquid assets to total net cash outflows in defined stress conditions over the next 30 days.

A binding liquidity coverage ratio of 60 percent has applied to institutions since October 1, 2015. From January 1, 2016, they must comply with an LCR of at least 70 percent, with this figure rising to 80 percent from January 1, 2017. The minimum ratio will be 100 percent from January 1, 2018.

The **net stable funding ratio** (NSFR) has a long-term focus and is intended to ensure that institutions restrict mismatches between the maturity structures of their assets-side and liabilities-side business. This ratio is the amount of available stable funding (equity and liabilities) relative to the amount of required stable funding (assets-side business). The funding sources are weighted according to their degree of stability and assets are weighted according to their degree of liquidity based on factors defined by the regulator. Unlike the liquidity coverage ratio, compliance with the NSFR is not scheduled to become mandatory until 2018.

DZ BANK reports its own LCR and that of the DZ BANK banking group, calculated in accordance with the CRR, to the regulator on a monthly basis. Since October 1, 2015, the LCR for DZ BANK and the DZ BANK banking group has been additionally calculated in accordance with the requirements of the Delegated Regulation.

As part of its implementation of the new regulatory liquidity requirements, the DZ BANK banking group is participating in Basel III monitoring, which involves submitting the LCR (in accordance with the Delegated Regulation) and the NSFR (in accordance with Basel III) ratios to the regulator on a half-yearly basis. In addition, these ratios have to be reported to the ECB at the level of the banking group each quarter as part of the short-term exercises.

6.3.2. Organization, responsibility, and reporting

The liquidity variables reported for regulatory purposes resulting from the CRR, the Basel III framework, and the Delegated Regulation are calculated for DZ BANK by the **Group Finance** division and they are aggregated at the level of the DZ BANK banking group with the corresponding values for the management units.

Both the **Treasury and Capital Committee** and the **Board of Managing Directors** are notified of the LCR (monthly) and the NSFR (quarterly).

6.3.3. Regulatory ratios

The **LCR** calculated in accordance with the Delegated Regulation for the **DZ BANK banking group** as at December 31, 2015 was 125.8 percent, which included high-quality liquid assets of €46.4 billion and total net cash outflows of €36.9 billion. The liquidity coverage ratio for the DZ BANK banking group is thus already higher than the minimum ratio of 100 percent that becomes mandatory from 2018.

The **NSFR**, calculated in accordance with the stipulations of the Basel Committee on Banking Supervision as at the reporting date, came to 99.0 percent for the **DZ BANK banking group**. This was based on available stable funding of €203.4 billion and total net cash outflows of €205.5 billion.

In the calculation of the NSFR, operational deposits of affiliated local cooperative banks at DZ BANK of €21.8 billion were included in the amount of available stable funding with a weighting factor of 50 percent in the same way that other operational deposits of financial customers are included. So far, however, the national regulator has not defined a factor for these transactions. If this uncertainty is viewed conservatively and a factor of 0 percent is assumed for operational deposits of the cooperative financial network, the NSFR for the DZ BANK banking group as at December 31, 2015 is 93.7 percent.

6.4. OUTLOOK

The extension of the **measurement of intraday liquidity**, which began in 2015, is to continue in 2016. In addition, the new regulatory liquidity reporting variables will also continue to be integrated into liquidity risk management.

In 2016, it is also planned to extend the external reporting of the regulatory liquidity ratios LCR and NSFR to include the **additional liquidity monitoring metrics** (ALMMs), which are likely to become subject to a disclosure requirement on March 31, 2016. The ALMMs comprise a total of six further liquidity metrics at the level of the DZ BANK banking group and DZ BANK.

7. CAPITAL ADEQUACY

7.1. PRINCIPLES

The management of capital adequacy is an integral component of business management in the DZ BANK Group and at DZ BANK. DZ BANK and all other management units are included in the management of capital adequacy. Active management of economic capital adequacy on the basis of both internal risk measurement methods and regulatory capital adequacy requirements aims to ensure that the assumption of risk is always consistent with the DZ BANK Group's capital resources.

In addition to the management of economic capital, regulatory solvency requirements for the DZ BANK financial conglomerate, the DZ BANK banking group, and the R+V Versicherung AG insurance group are also observed.

7.2. ECONOMIC CAPITAL ADEQUACY

Owing to the close ties between the management of economic capital adequacy at DZ BANK and that of the DZ BANK Group, the information below also applies to DZ BANK.

7.2.1. Strategy, organization, and responsibility

The **Board of Managing Directors of DZ BANK** defines the corporate objectives and the capital requirement in the DZ BANK Group and at DZ BANK in terms of both risks and returns. In managing the risk profile, the Board of Managing Directors strives for an appropriate ratio of risk capital requirement to available internal capital. DZ BANK is responsible for risk and capital management, and for compliance with capital adequacy at group level.

The management of economic and regulatory capital adequacy is based on internal target values. To avoid any unexpected adverse impact on **target values and capital ratios** and ensure that any changes in risk are consistent with corporate strategy, groupwide risk-weighted assets and economic upper loss limits are planned as limits for the risk capital requirement on an annual basis as part of the **strategic planning process.** This process results in a requirements budget for the economic and regulatory capital needed by the group. The action needed to cover this requirement and the implementation of any corresponding measures to raise capital is approved by the Treasury and Capital Committee and then coordinated by Group Treasury at DZ BANK.

The integration of economic risk capital requirements planning into the strategic planning process aims to ensure that the risk strategy for types of risk covered by capital is closely linked with the business strategies.

7.2.2. Measurement methods

Economic capital management is based on internal risk measurement methods that take into account all types of risk that are material from a capital adequacy perspective. The risk capital requirement is determined by aggregating the relevant risk types of all management units. The methods selected serve to meet the statutory requirements for a groupwide integrated risk capital management system.

As part of **risk-bearing-capacity analysis**, the risk capital requirement is compared with the available internal capital (reduced by a capital buffer) in order to determine the economic capital adequacy. The Board of Managing Directors determines the upper loss limits for a particular year on the basis of the available internal capital and bearing in mind the necessary capital buffer. These limits then restrict the risk capital requirement. If necessary, the upper loss limits can be adjusted during the year, e.g. if economic conditions change.

Available internal capital comprises equity and hidden reserves. It is reviewed on a quarterly basis. In line with the sectoral approach, the available internal capital is determined on a modular basis as follows:

– The available internal capital from the **Bank sector** is calculated on the basis of the IFRS data (FinRep), but excludes R+V.
– The available internal capital from the **Insurance sector** is based on the own funds of the R+V Versicherung AG insurance group in accordance with Solvency II.

The available internal capital from the two sectors is combined to produce the available internal capital of the DZ BANK Group. During this process, the effects of consolidation between the Bank and Insurance sectors are taken into account, resulting in a reduction in the available internal capital at group level.

It was necessary to recalculate the overall solvency requirement as at December 31, 2014 owing to scheduled changes to the parameters for the risk measurement procedures and the updating of actuarial assumptions carried out in the second quarter of 2015 for the Insurance sector on the basis of R+V's 2014 consolidated financial statements. The recalculation reflects updated measurements of insurance liabilities based on annual actuarial analyses and updates to parameters in the risk capital calculation. Because of the complexity and the amount of time involved, the parameters generally are not completely updated in the in-year calculation and an appropriate projection is made.

This recalculation also resulted in changes to the key risk indicators at DZ BANK Group level (available internal capital, capital buffer, risk capital requirement, and economic capital requirement). The figures as at December 31, 2014 given in this opportunity and risk report have been restated accordingly and are not directly comparable with the figures in the 2014 opportunity and risk report.

7.2.3. Capital buffer

The purpose of the capital buffer is to cover the lack of some precision in risk measurement as well as account for risks that are not measured as part of the risk capital requirement and not managed using risk limits (upper loss limits). This applies to **migration risk on traditional loans**, for example. The individual components of the capital buffer are quantified using a method based on scenarios and models with input from experts.

The capital buffer also includes the **risk arising from defined benefit obligations** incurred by the entities allocated to the Bank sector. This risk comprises the interest-rate risk and longevity risk that arise from direct pension obligations to current or former employees. The interest-rate risk arising from the defined benefit obligations of BSH is not covered by the capital buffer; it is managed as part of market risk.

The risks arising in connection with the assets and liabilities are regularly assessed by a DZ BANK investment committee; corrective action to eliminate risk is taken where necessary. Changes in decisions by the courts, in legislation, or in accounting standards may make it necessary to adjust existing provisions for pensions and other post-employment benefits.

Disclosures regarding the accounting policies for defined benefit obligations can be found in note 26 of the notes to the consolidated financial statements.

7.2.4. Risk-bearing capacity

The DZ BANK Group's **available internal capital** as at December 31, 2015 was measured at €22,616 million (December 31, 2014: €19,893 million; original value: €19,569 million). As at December 31, 2015, the **capital buffer** amounted to €1,526 million (December 31, 2014: €2,644 million). The substantial decrease in the capital buffer was largely due to exposures being transferred from the capital buffer to the regular risk calculation. This decrease resulted in a corresponding increase in the risk capital requirement and available internal capital. The increase in available internal capital is also attributable, in particular, to the positive financial performance.

Derived from the available internal capital minus the capital buffer, the total **upper loss limit** for the DZ BANK Group amounted to €16,866 million as at December 31, 2015 (December 31, 2014: €15,284 million). As at December 31, 2015, the **risk capital requirement** was calculated at €12,167 million (December 31, 2014: €10,312 million;

FIG. 14 – ECONOMIC CAPITAL ADEQUACY OF THE DZ BANK GROUP

€ million	Dec. 31, 2015	Sep. 30, 2015	Jun. 30, 2015	Mar. 31, 2015	Dec. 31, 2014
Available internal capital	22,616	21,508	21,360	21,481	19,893
Capital buffer	-1,526	-1,450	-1,302	-1,259	-2,644
Available internal capital after deduction of capital buffer	21,090	20,057	20,058	20,222	17,249
Upper loss limit	16,866	16,866	16,840	16,542	15,284
Risk capital requirement (after diversification)	12,167	12,053	12,308	12,811	10,312
Economic capital adequacy	**173.3%**	**166.4%**	**163.0%**	**157.8%**	**167.3%**

FIG. 15 – UPPER LOSS LIMITS AND RISK CAPITAL REQUIREMENT IN THE BANK SECTOR

	Upper loss limits					Risk capital requirement				
€ million	Dec. 31, 2015	Sep. 30, 2015	Jun. 30, 2015	Mar. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Sep. 30, 2015	Jun. 30, 2015	Mar. 31, 2015	Dec. 31, 2014
Credit risk	4,860	4,888	4,928	4,550	3,942	3,569	3,719	3,705	3,858	3,056
Equity investment risk	1,081	1,081	951	951	974	854	853	832	861	788
Market risk[1]	5,830	5,810	5,870	5,942	6,422	3,204	3,342	3,597	3,972	2,769
Technical risk of a home savings and loan company[2]	550	550	550	550	500	549	549	549	549	496
Operational risk	1,150	1,150	1,150	1,150	689	871	763	829	846	628
Business risk[3]	775	754	754	745	436	579	663	628	648	361
Total (after diversification)	**13,066**	**13,066**	**13,040**	**12,742**	**11,784**	**8,391**	**8,617**	**8,840**	**9,401**	**6,922**

1 Market risk contains spread risk and migration risk.
2 Including business risk and reputational risk of BSH.
3 Apart from that of BSH, reputational risk is contained in the risk capital requirement for business risk.

FIG. 16 – UPPER LOSS LIMITS AND OVERALL SOLVENCY REQUIREMENT IN THE INSURANCE SECTOR

	Upper loss limits					Overall solvency requirement				
€ million	Dec. 31, 2015	Sep. 30, 2015	Jun. 30, 2015	Mar. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Sep. 30, 2015	Jun. 30, 2015	Mar. 31, 2015	Dec. 31, 2014
Life actuarial risk	520	550	490	490	450	501	462	476	390	423
Health actuarial risk	70	70	70	70	80	62	57	57	57	58
Non-life actuarial risk	2,600	2,485	2,485	2,485	2,300	2,567	2,421	2,414	2,355	2,334
Market risk	2,950	2,950	2,950	2,950	2,350	2,905	2,811	2,707	2,743	2,489
Counterparty default risk	50	85	85	85	80	37	42	43	81	43
Operational risk	470	500	520	520	510	452	456	463	488	438
Entities in other financial sectors	80	100	100	100	80	75	75	75	75	75
Total (after diversification)	**3,800**	**3,800**	**3,800**	**3,800**	**3,500**	**3,775**	**3,436**	**3,468**	**3,410**	**3,390**

original value: €10,181 million). The rise in the upper loss limit and risk capital requirement during the reporting year was mainly the result of various exposures being transferred from the capital buffer to the risk capital requirement.

As at December 31, 2015, the **economic capital adequacy ratio** for the DZ BANK Group was calculated at 173.3 percent (December 31, 2014: 167.3 percent; original value: 166.2 percent). Figure 14 provides an overview of the DZ BANK Group's economic capital adequacy.

The upper loss limits and risk capital requirements for the Bank sector, broken down by risk type, are shown in figure 15.

Figure 16 sets out the upper loss limits and overall solvency requirements for the Insurance sector broken down by risk type and includes policyholder participation. The definition of the upper loss limits and determination of overall solvency requirements take into account a favorable effect arising from the ability to offset deferred taxes resulting from the elimination of deferred tax liabilities in the loss scenario against losses. Diversification effects between the risk types are also taken into consideration. Owing to these effects of correlation, the overall solvency requirement and upper loss limits for each risk type are not cumulative.

7.2.5. Economic stress tests

ECONOMIC STRESS TESTS AT DZ BANK GROUP LEVEL

Economic stress tests are used by DZ BANK to establish whether the DZ BANK Group would retain its risk-bearing capacity in extreme but plausible scenarios. The economic stress test framework includes several **multiple-risk economic scenarios** and **specific stress tests for individual risk types** incurred by the DZ BANK Group.

The stress tests are designed for a 1 to 2-year scenario horizon. They take into account both macroeconomic scenarios and historical situations that are particularly relevant for the DZ BANK Group's business model and portfolios. The risk-type-specific stress tests are hypothetical scenarios reflecting a degree of stress for a crisis that can occur every ten years.

DZ BANK also carries out a quarterly groupwide **inverse stress test** to illustrate the extreme changes in market prices that could also impair its risk-bearing capacity in the short term. An extension of the inverse stress test is being developed and will be introduced in 2016.

The economic stress test framework applies to all of the DZ BANK Group's material **downside risks,** including risks that are only critical for individual management units because of their particular business model. The stress tests are based on the methods and procedures used for calculating risk-bearing capacity. However, the economic stress tests can also reflect events that go beyond the methods established for the calculation of risk-bearing capacity.

The stress test framework in the DZ BANK Group is based on the **sectoral approach** to calculating risk-bearing capacity. The stress testing methods are designed so that the specific features of R+V's business model and its risk and capital management systems are taken into account comprehensively and in an appropriate manner when determining the results of stress testing in the DZ BANK Group.

The scenarios for the economic stress test translate potential trends in macroeconomic indicators and market prices during a **crisis** into changes in available internal capital and the risk capital requirement. This enables the impact of external economic developments on the risk-bearing capacity of the DZ BANK Group to be addressed comprehensively and consistently.

For the economic stress tests, DZ BANK has put in place a system of threshold values as an **early-warning mechanism.** A continuous reporting system monitors whether values are within these thresholds in the multiple-risk scenarios and the stress tests for specific risk types. Different early-warning signals trigger different **risk management processes** in response to the potential risks highlighted by the stress tests.

The stress tests are calculated every quarter and approved by the **Risk Committee** or the Board of Managing Directors of DZ BANK.

ECONOMIC STRESS TESTS IN THE BANK SECTOR

The method used for stress testing in the Bank sector includes potential **reductions in available internal capital** and amendments to risk positions resulting from the scenarios. These reductions may be caused by losses on the measurement of tradable financial instruments, write-downs on the carrying amounts of investments due to changes in market prices, losses due to defaults and changes in fair value due to deteriorations in credit quality and loss rates, losses from operational risk, and changes in sources of return resulting from changing macroeconomic conditions or market situations.

In the stress scenarios, the measurement of market risk, equity investment risk, credit risk, the technical risk of a home savings and loan company, business risk, and operational risk in the Bank sector is also adapted so as to adequately reflect the simulated change triggered by a crisis. The initial parameters for measuring risk are scaled in such a way as to make them suitable for reflecting extremely negative hypothetical or historical situations. The procedure for aggregating risk types into a stress test result covering all management units and risk types is similar to the regular procedure used for risk measurement. In the hypothetical multiple-risk scenario, increased correlation between different types of risk is also tested.

In the **inverse stress test,** a scenario is used to simulate impairment of risk-bearing capacity such that it is no longer possible to maintain the business model as a going concern merely because the available internal capital has been depleted by fair value losses resulting from a combination of extreme changes in market prices and price volatility.

DZ BANK is integrated into the standard risk capital requirement stress tests conducted in the DZ BANK Group. In addition to the standard stress test procedures at group level, DZ BANK creates crisis scenarios based on the internal market risk model and adjusts the scenarios on an ongoing basis to take into account current market data.

ECONOMIC STRESS TESTS IN THE INSURANCE SECTOR

Like the other management units in the DZ BANK Group, R+V regularly conducts the economic stress tests applicable to the group but they are based on a separate stress testing method for the Insurance sector. This means that appropriate account is taken of the specific features of R+V's business model and its risk and capital management systems. In particular, policyholder participation is taken into account.

Market and credit risk are covered in the **multiple-risk economic scenarios,** while actuarial risk is addressed using the stressed yield curve. The parameters for the yield curve, exchange rates, share prices, interest-rate volatility, and credit spreads are changed.

In the **specific economic stress tests** for actuarial risk, the parameters for lapse and mortality in life insurance business and the expected number of claims for natural disasters in the non-life insurance business are explicitly changed.

7.2.6. Possible impact from crystallized risk

If risk covered by capital actually materializes, this has a negative impact on both financial performance and financial position. In the income statement, the recognized expenses are higher and/or the recognized income is lower than originally expected. This is accompanied by a decrease in the net assets on the balance sheet because assets are unexpectedly lower and/or liabilities are unexpectedly higher. A widening of spreads on fungible financial instruments may also lead to a deterioration in the financial position, which is reflected in other comprehensive income.

If there is a deterioration in financial performance, there is the risk of long-term **negative risk-adjusted profitability**. The cost of capital cannot then be covered, and economic value added (EVA) becomes negative. If this situation arose, there would no longer be any point in continuing business operations from a business management perspective.

Viewed in isolation and assuming there are no other influencing factors, this chain of events would apply particularly in a scenario where the equity holder is simply seeking to maximize profits. In the case of DZ BANK, however, there is another significant factor in that the intention of the equity holders (who in many cases are also customers of DZ BANK and its subsidiaries) in committing equity to DZ BANK is not only to achieve, as far as possible, market-level returns commensurate with the risk involved, but also to utilize the decentralized services that DZ BANK provides as a central institution in the cooperative financial network. The return on investment that forms part of any purely monetary analysis therefore needs to be adjusted in the case of DZ BANK to remove the effects of the extra benefits. Given this background, EVA is only of limited use for assessing the advantages of the investment in DZ BANK. Thus, a negative EVA is not necessarily associated with the discontinuation of business activities undertaken by DZ BANK or its subsidiaries.

If risk were to materialize and associated losses be incurred, there would be a risk that the DZ BANK Group would **miss its economic capital adequacy target**. However, this situation could also occur with an increase in risk arising from heightened market volatility or as a consequence of changes in the business structure. In addition, a decrease in available internal capital, for example because its components have expired or are no longer eligible, could mean that the risk capital requirement exceeds the available internal capital. Additional or more stringent statutory or regulatory requirements could also have a negative impact on the economic capital adequacy of the DZ BANK Group.

In a situation in which the economic capital adequacy of the DZ BANK Group could not be guaranteed, there would be insufficient capital available to meet the group's own standards with regard to the coverage of risk. This could lead to a deterioration in the credit ratings for DZ BANK and its subsidiaries. If there is also insufficient capital to meet the level of protection demanded by regulators, these regulators could initiate action, which in extreme cases could aim to wind up DZ BANK or its subsidiaries.

7.3. REGULATORY CAPITAL ADEQUACY

7.3.1. Principles

The key aspects of the management of regulatory capital adequacy and the associated KPIs are disclosed below. Detailed information on the DZ BANK financial conglomerate and the DZ BANK banking group can be found in the 2015 annual regulatory risk report.

At DZ BANK, the Group Finance division is responsible for monitoring regulatory capital adequacy. Regular monitoring is designed to ensure that the applicable minimum regulatory requirements for solvency are met at all times. Monitoring takes place continuously for the DZ BANK financial conglomerate, monthly for the DZ BANK banking group and DZ BANK, and at least quarterly for the R+V Versicherung AG insurance group. The Board of Managing Directors and the regulator are notified of the results in the quarterly reports on capital management.

7.3.2. DZ BANK financial conglomerate

The German Supervision of Financial Conglomerates Act (FKAG) essentially forms the legal basis for the supervision of the DZ BANK financial conglomerate.

Financial conglomerate solvency is the amount equating to the difference between the total of eligible own funds in the financial conglomerate and the total of solvency requirements for the conglomerate. The coverage ratio is calculated by dividing own funds by the solvency requirement. The resulting ratio must be at least 100 percent. With effect from January 1, 2014, calculation of the financial conglomerate's solvency was switched from a consolidated calculation in accordance with section 5 of the German Regulation Governing the Capital Adequacy of Financial Conglomerates (FkSolV) to an accounting consolidation method based on article 14 of the aforementioned regulatory technical standard.

On the basis of a provisional calculation, the DZ BANK financial conglomerate's eligible own funds as at December 31, 2015 amounted to €20,491 million (December 31, 2014: confirmed final eligible own funds of €19,201 million). On the other side of the ratio, the provisional solvency requirement was €11,213 million (December 31, 2014: €11,011 million). This gives a provisional coverage ratio of 182.7 percent (December 31, 2014: confirmed final coverage ratio of 174.4 percent), which is significantly in excess of the regulatory minimum requirement of 100 percent.

7.3.3. DZ BANK banking group

REGULATORY FRAMEWORK

The DZ BANK banking group uses the following methods to calculate the regulatory capital requirement in accordance with the CRR:

– Credit risk: IRB approaches (primarily the foundation IRB approach and the IRB approach for the retail business; the regulatory credit risk measurement methods used by DVB are based on the advanced IRB approach)
– Market risk: Predominantly the group's own internal models and, to a minor extent, the Standardized Approaches
– Operational risk: Standardized Approach.

In the reporting year, DZ BANK continued to support the further development of banking supervision, once again stepping up its collaboration in the relevant committees, both at national and international levels.

REGULATORY CAPITAL RATIOS IN ACCORDANCE WITH THE CRR

The regulatory **own funds** of the DZ BANK banking group as at December 31, 2015 amounted to a total of €18,429 million (December 31, 2014: €16,508 million).

The main reason for the sharp rise in regulatory own funds was the increase in **common equity Tier 1 capital** resulting from retaining profits of €1,191 million and the eligible portion of the revaluation reserve of €426 million.

The cancellation of existing additional Tier 1 bonds (AT1 bonds) and the regulatory reduction in eligibility in this capital class were more than offset by new issues of AT1 bonds by DZ BANK with a total volume of €750 million. This led to a net increase in **additional Tier 1 capital** of €254 million.

At €3,127 million, **Tier 2 capital** was virtually unchanged on the end of 2014. The decreases resulting from the reduced level of eligibility under the CRR in the last five years before the maturity date were offset by obtaining new Tier 2 capital.

As at December 31, 2015, regulatory **capital requirements** were calculated at €7,828 million (December 31, 2014: €7,846 million).

The **total capital ratio** of the **DZ BANK banking group** rose from 16.8 percent as at December 31, 2014 to 18.8 percent as at the balance sheet date. As at December 31, 2015, the **Tier 1 capital ratio** was 15.6 percent, a sharp increase on the ratio of 13.7 percent as at December 31, 2014. The **common equity Tier 1 capital ratio** was 13.9 percent as at December 31, 2015 and thus also significantly higher than the ratio of 12.2 percent as at the end of 2014.

The **total capital ratio** of **DZ BANK** went up from 24.9 percent as at December 31, 2014 to 26.6 percent as at the balance sheet date. The **Tier 1 capital ratio** was also up, from 17.8 percent as at December 31, 2014 to 20.2 percent as at December 31, 2015. The **common equity Tier 1 capital ratio** was calculated as 19.1 percent at December 31, 2015 (December 31, 2014: 17.8 percent).

The ratios at both DZ BANK banking group level and DZ BANK level were well above the regulatory minimum values at all times during 2015.

Figure 17 provides an overview of the DZ BANK banking group's regulatory capital ratios in accordance with the regulations in force in 2015.

FIG. 17 – REGULATORY CAPITAL RATIOS OF THE DZ BANK BANKING GROUP IN ACCORDANCE WITH CRR

€ million	**Dec. 31, 2015**	Sep. 30, 2015	Jun. 30, 2015	Mar. 31, 2015	Dec. 31, 2014
Capital					
Common equity Tier 1 capital	13,554	13,165	12,792	12,750	11,913
Additional Tier 1 capital	1,748	1,033	1,010	1,360	1,494
Tier 1 capital	**15,302**	**14,198**	**13,802**	**14,110**	**13,407**
Total Tier 2 capital after capital deductions	3,127	3,012	2,868	3,429	3,101
Total capital	**18,429**	**17,210**	**16,670**	**17,539**	**16,508**
Capital requirements					
Credit risk (including long-term equity investments)	6,243	6,313	6,328	6,589	6,309
Market risk	872	934	1,049	917	873
Operational risk	713	713	713	713	664
Total	**7,828**	**7,960**	**8,090**	**8,219**	**7,846**
Capital ratios					
Total capital ratio (minimum ratio: 8.0 percent)	18.8%	17.3%	16.5%	17.1%	16.8%
Tier 1 capital ratio (minimum ratio: 5.5 percent)	15.6%	14.3%	13.6%	13.7%	13.7%
Common equity Tier 1 capital ratio (minimum ratio: 4.0 percent)	13.9%	13.2%	12.6%	12.4%	12.2%

REGULATORY STRESS TESTS

At banking group level, DZ BANK conducts the quarterly regulatory stress tests that are required to verify the group's capital adequacy on a regular basis, including in crisis situations. In these tests, DZ BANK distinguishes between multiple-risk scenarios and scenarios for specific risk types. A multiple-risk historical stress test is currently being conducted, as is a risk-specific stress test for credit risk.

In the historical 'financial crisis' scenario, regulatory capital adequacy is examined by stress-testing net profit, the revaluation reserve and, building on that, own funds calculated in accordance with the CRR and the risk-weighted assets for credit risk and market risk. In addition to this stress scenario, there is also a credit risk stress test that examines a deterioration in credit ratings and collateral values, depending on the relevant management units and the asset class concerned.

FUTURE BASEL III REGULATORY CAPITAL RATIOS

According to the regulations that will apply from 2019 (also known as 'fully loaded' Basel III), the DZ BANK banking group and DZ BANK would have the following solvency ratios as at December 31, 2015 (the ratios as at December 31, 2014 are shown in parentheses):

DZ BANK banking group:

- Total capital ratio: 18.3 percent (12.8 percent); minimum ratio: 10.5 percent
- Tier 1 capital ratio: 13.8 percent (11.2 percent); minimum ratio: 8.5 percent
- Common equity Tier 1 capital ratio: 13.0 percent (11.1 percent); minimum ratio: 7.0 percent

DZ BANK:

- Total capital ratio: 26.6 percent (19.6 percent)
- Tier 1 capital ratio: 20.2 percent (17.6 percent)
- Common equity Tier 1 capital ratio: 19.0 percent (17.6 percent).

During 2015, the ratios were in excess of the regulatory minimum values at all times.

SREP MINIMUM RATIOS

Under the resolution adopted by the ECB in accordance with the regulatory supervision process for Basel III

Pillar 2 (article 16 of EU regulation no. 1024/2013), during the reporting year the DZ BANK banking group had to maintain a common equity Tier 1 capital ratio of at least 8.0 percent. This requirement was met at all times during the reporting year. The common equity Tier 1 capital ratio stood at 13.9 percent as at December 31, 2015.

For 2016, the ECB has set a common equity Tier 1 capital ratio at banking group level of at least 9.5 percent. According to current projections, the DZ BANK banking group is expected to also meet this requirement.

LEVERAGE RATIO

In accordance with the transitional guidance for the delegated act, the leverage ratio of the **DZ BANK banking group** was 4.5 percent as at December 31, 2015 (September 30, 2015: 4.1 percent; June 30, 2015: 4.0 percent; March 31, 2015: 3.9 percent). On the same legal basis, the leverage ratio calculated for **DZ BANK** was 4.6 percent as at the reporting date (September 30, 2015: 4.1 percent; June 30, 2015: 4.1 percent; March 31, 2015: 4.0 percent). Both at the level of the DZ BANK banking group and at DZ BANK, the increase in the ratio over the course of the year was largely due to a decrease in the leverage ratio exposure measure owing to a reduction in securities financing transactions and derivatives combined with an increase in Tier 1 capital.

7.3.4. R+V Versicherung AG insurance group

The regulatory solvency requirements for insurance companies and insurance groups provide a means of evaluating the overall risk position in the R+V Versicherung AG insurance group. The group's risk-bearing capacity for regulatory purposes is defined as the eligible own funds at group level in relation to the risks arising from operating activities. In compliance with the legislation currently applicable to the insurance sector, the changes in the regulatory risk-bearing capacity of the R+V Versicherung AG insurance group as a whole and each of its constituent entities are analyzed at least once a quarter.

In 2015, all of the supervised insurance companies of R+V together with the R+V Versicherung AG insurance group, which is the higher-level entity for regulatory purposes, satisfied the minimum solvency requirements that were in force until December 31, 2015 under Solvency I.

As at December 31, 2015, preliminary figures show that the R+V Versicherung AG insurance group's risk-bearing capacity for regulatory purposes (adjusted solvency) amounted to 184.9 percent compared with a confirmed final ratio of 189.7 percent as at December 31, 2014. The group had eligible own funds of €6,566 million at its disposal on December 31, 2015 (confirmed final figure as at December 31, 2014: €6,312 million) to cover a solvency requirement of €3,550 million (confirmed final figure as at December 31, 2014: €3,328 million). Valuation reserves eligible for regulatory purposes are not included in these figures.

Analysis of the capital market scenarios applied in the internal planning shows that the regulatory risk-bearing capacity of the R+V Versicherung AG insurance group under Solvency II will continue to exceed the minimum statutory requirement as at December 31, 2016. In view of the ongoing challenging situation in the financial markets, forecasts about changes in the solvency capital requirement and own funds are subject to significant uncertainty. However, R+V will take suitable measures to ensure its risk-bearing capacity.

The internal stress tests described in section 7.2.5 fulfill the requirement on R+V to conduct stress tests as prescribed by EIOPA and BaFin and to review whether it is in a position to meet its obligations to policyholders, even in the event of a sustained crisis situation on the capital markets.

7.4. OUTLOOK

7.4.1. Capital requirements for market risk

By way of preparation for the planned Fundamental Review of the Trading Book, under which the regulatory capital requirements for market risk are to be comprehensively reorganized, among other changes, DZ BANK is tracking the ongoing development of the implementation requirements. The bank is planning further activities in order to prepare a concept study on the Fundamental Review of the Trading Book.

7.4.2. Risk data management

The DZ BANK Group has given a high priority to implementing the principles for effective risk data aggregation and risk reporting published by the BCBS. An as-is analysis was carried out in 2014 and an action plan drawn up. In 2015, this work was further developed, with the involvement of the management units, to create a target scenario for the DZ BANK Group that was used to derive a step-by-step implementation plan that will enable the group to satisfy the requirements by the end of 2017. Implementation is taking place on the basis of groupwide projects.

7.4.3. Solvency II

With the start of Solvency II on January 1, 2016, R+V will implement the regulatory requirements by calculating its risk-bearing capacity. This will mainly involve switching to the yield curve stipulated by EIOPA and using a stochastic model for the personal insurance providers' calculations. In the event of significant discrepancies between R+V's own risk profile and the assumptions on which the regulatory capital requirements (solvency capital requirement, SCR) are based, R+V will adjust the models and parameters used for internal risk calculations, as it does at present. The switch has an impact on R+V's overall solvency requirement and own funds. From a current perspective, the DZ BANK Group's economic capital adequacy is assured, and will continue to be assured after the changes have been implemented.

Bank sector

8. CREDIT RISK

8.1. DEFINITION AND CAUSES

8.1.1. Definition

Credit risk is defined as the risk of losses arising from the default of counterparties (borrowers, issuers, other counterparties) and from the migration of the credit ratings of these counterparties.

Credit risk may arise in traditional lending business and also in trading activities. **Traditional lending business** is for the most part commercial lending, including financial guarantee contracts and loan commitments. In the context of credit risk management, **trading activities** refers to capital market products such as securities (in both the banking book and the trading book), promissory notes, derivatives, secured money market business (such as sale and repurchase agreements, referred to below as repo transactions), and unsecured money market business.

In **traditional lending business**, credit risk arises in the form of default risk. In this context, default risk refers to the risk that a customer may be unable to settle receivables arising from loans or advances made to the customer (including lease receivables) or make overdue payments, or that losses may arise from contingent liabilities or from lines of credit committed to third parties.

Credit risk in connection with **trading activities** arises in the form of default risk, which can be subdivided into issuer risk, replacement risk, and settlement risk, depending on the type of transaction involved.

Issuer risk is the risk of incurring losses from the default of issuers of tradable debt or equity instruments (such as bonds, shares, profit-participation certificates), losses from a default in connection with the underlying instrument in derivatives (for example, credit or equity derivatives), or losses from a default in connection with fund components.

Replacement risk on derivatives is the risk of a counterparty defaulting during the term of a trading transaction where entities in the Bank sector can only enter into an equivalent transaction with another counterparty by incurring an additional expense in the amount of the positive fair value at the time of default.

Settlement risk arises when there are two mutually conditional payments and there is no guarantee that when the outgoing payment is made the incoming payment will be received. Settlement risk is the risk of a loss if counterparties do not meet their obligations, counter-performance already having taken place.

Country risk is also included within credit risk. Country risk in the narrower sense of the term refers to conversion, transfer, payment prohibition, or moratorium risk. It is the risk that a foreign government may impose restrictions preventing a debtor in the country concerned from transferring funds to a foreign creditor. In the broader sense of the term, country risk forms part of credit risk. In this case, it refers to the risk arising from exposure to the government itself (sovereign risk) and the risk that the quality of the overall exposure in a country may be impaired as a result of country-specific events.

8.1.2. Causes

Credit risk from traditional lending business arises primarily at DZ BANK, BSH, DG HYP, DVB, and TeamBank. The risk results from the specific transactions in each management unit and therefore has varying characteristics in terms of diversification and size in relation to the volume of business.

Credit risk relating to trading transactions arises from issuer risk, particularly in connection with the trading activities and investment business of DZ BANK, BSH, and DG HYP. Replacement risk arises for the most part at DZ BANK, DVB, and DZ PRIVATBANK. BSH and DG HYP only incur credit risk on banking book trading activities.

8.2. RISK STRATEGY

The entities in the Bank sector pursue a strictly decentralized business policy aimed at promoting the cooperative banks and are bound by the core strategic guiding principle of a ‘network-oriented central institution and financial services group’. The business and risk policy for the credit-risk-bearing core businesses in the group is formulated on the basis of risk-bearing capacity. The credit risk strategy therefore forms the basis for credit risk management and reporting across the whole group and ensures that there is a standard approach to credit risk within the group.

Lending throughout the group is predominantly based on the ‘VR rating’ system, a rating procedure developed by DZ BANK in collaboration with the BVR and WGZ BANK.

Both DZ BANK and the subsidiaries with a material credit risk seek to maintain a good rating structure in their credit portfolios at all times. In the future, the portfolios will continue to be characterized by a high degree of diversification.

Where required, the Board of Managing Directors of DZ BANK makes decisions during the course of the year to ensure that the rules for the medium-term and long-term credit risk strategy are adjusted in line with changing circumstances and current developments.

8.3. ORGANIZATION, RESPONSIBILITY, AND RISK REPORTING

Responsibilities in the lending process have been defined and are documented in a written set of procedural rules. These responsibilities cover loan applications, approvals, and processing, including periodic credit control with regular analysis of ratings. Decision-making authority levels are specified by the relevant **rules** based on the risk content of lending transactions.

Established **reporting and monitoring processes** help to provide decision-makers with information about changes in the risk structure of credit portfolios and form the basis for the active management of credit risk.

As part of the **credit risk report**, the Group Risk and Finance Committee is kept informed of the economic capital required to cover credit risk. In addition to providing management with recommendations for action, internal reporting also includes an in-depth analysis of the portfolio structure in regard to risk concentrations based on key risk characteristics such as country, industry, credit rating class, and the lending volume to single borrowers. In addition, the reports include details on specific exposures and specific loan loss allowances. The credit value-at-risk in the context of the risk mitigation provided by the upper loss limit is also part of the credit risk report.

8.4. RISK MANAGEMENT

8.4.1. Rating systems

CHARACTERISTICS OF THE RATING SYSTEMS

The generation of internal credit ratings for the business partners of entities in the Bank sector helps, in particular, to provide a solid basis for lending decisions as part of the management of individual transactions. The **VR rating system** used as standard throughout the cooperative financial network ensures that all the entities in the network apply a sophisticated uniform methodology producing ratings that are comparable.

DZ BANK primarily uses VR rating systems as part of its credit risk management system to assess large and medium-sized companies, major corporate customers, banks, and countries, as well as project finance, asset finance, acquisition financing, and investment funds. The internal assessment approach is also used to evaluate the liquidity lines and credit enhancements made available by DZ BANK to programs for the issuance of asset-backed commercial paper. These rating systems have been approved by BaFin for the purposes of calculating regulatory capital using the foundation IRB approach.

For internal management purposes, DZ BANK uses further rating systems to assess SMEs (German Mittelstand), agricultural businesses, public-sector entities, not-for-profit organizations, and foreign SMEs. Although these systems satisfy the requirements for the foundation IRB approach in the opinion of DZ BANK, they are deemed to be of less significance and have not yet been reviewed by the regulator.

Most of the other entities in the Bank sector also use the DZ BANK rating systems for banks, countries, and major corporate customers. Rating systems for specific business segments are also used by individual subsidiaries.

DEVELOPMENT OF RATING SYSTEMS

The rating system used by DZ BANK for project finance was overhauled in 2015. In addition, the testing phase for the rating system for insurers was completed. The findings from the tests were used to optimize the methods underlying the rating system. Enhancement of the rating system for banks also began in 2015.

DZ BANK CREDIT RATING MASTER SCALE

The credit rating master scale serves as a groupwide rating benchmark with which to standardize the different rating systems used by the entities in the Bank sector as a result of differences in their business priorities. It thereby provides all management units with a uniform view of counterparties' credit ratings.

Figure 18 shows DZ BANK's credit rating master scale, in which internal credit ratings are matched to the ratings used by Moody's, Standard & Poor's, and Fitch. It should be noted that some internal ratings cannot be matched with a particular external rating because of the greater degree of refinement in the credit rating master scale. The ratings for securitization exposures are matched to various different external ratings depending on the asset class and region. In DZ BANK's master scale, the default bands remain unchanged to ensure comparability over the course of time, whereas some fluctuation in default rates can be seen in external ratings. Therefore, it is not possible to map the internal ratings directly to the ratings

FIG. 18 – BANK SECTOR: DZ BANK'S VR CREDIT RATING MASTER SCALE AND EXTERNAL CREDIT RATINGS

		External rating classes			
Internal rating class	Average default probability	Moody's	Standard & Poor's	Fitch	Rating category
1A	0.01%	Aaa to Aa2	AAA to AA	AAA to AA	Investment grade
1B	0.02%	Aa3	AA-	AA-	
1C	0.03%				
1D	0.04%	A1	A+	A+	
1E	0.05%				
2A	0.07%	A2	A	A	
2B	0.10%	A3	A-	A-	
2C	0.15%	Baa1	BBB+	BBB+	
2D	0.23%	Baa2	BBB	BBB	
2E	0.35%				
3A	0.50%	Baa3	BBB-	BBB-	
3B	0.75%	Ba1	BB+	BB+	Non-investment grade
3C	1.10%	Ba2	BB	BB	
3D	1.70%				
3E	2.60%	Ba3	BB-	BB-	
4A	4.00%	B1	B+	B+	
4B	6.00%	B2	B	B	
4C	9.00%	B3	B-	B-	
4D	13.50%				
4E	30.00%	Caa1 or lower	CCC+ or lower	CCC+ or lower	
5A	Past due >90 days				Default
5B	Specific loan loss allowance				
5C	Exemption from interest/ debt restructuring				
5D	Insolvency				
5E	Compulsory winding-up/ derecognition				
NR	No rating necessary or not rated				

used by the rating agencies. Consequently, the scale can only be used as a starting point for comparison between internal and external credit ratings.

DZ BANK RATING DESK

The VR rating systems for banks and countries are also available to DZ BANK subsidiaries and the cooperative banks. Users can enter into a master agreement to access the ratings via an IT application (Rating Desk), which is available throughout the cooperative financial network, in return for the payment of a fee. Any accessed ratings are first validated by the entities in the Bank sector or the cooperative banks before they are included in the user's credit procedures.

8.4.2. Pricing in the lending business

The management units in the Bank sector use the risk-adjusted pricing of the financing as a criterion in lending decisions. Adequate standard risk costs and risk-adjusted capital costs are taken into account. The methods used by the management units to manage individual transactions vary according to the particular features of the product or business concerned.

To ensure that lending business remains profitable, **standard risk costs** are determined in the management of individual transactions in many parts of the **Bank sector**. The purpose of these costs is to cover average expected losses from borrower defaults. The aim is to ensure that the net allowances for losses on loans and advances recognized in the financial statements are covered on average over the long term in an actuarial-type approach by the standard risk costs included in the pricing.

In addition to standard risk costs, **an imputed cost of capital** based on the capital requirement is integrated into **DZ BANK's** contribution margin costing. This enables DZ BANK to obtain a return on the capital tied up that is in line with the risk involved and that covers any unexpected losses arising from the lending business. Pricing also includes an appropriate amount to cover the costs of risk concentration.

8.4.3. Management of exposure in traditional lending business

MEASURING EXPOSURE IN TRADITIONAL LENDING BUSINESS

Individual lending exposures are managed on the basis of an analysis of gross lending exposure. The period taken into account in this case is equivalent to the monitoring cycle of one year. Together with risk-related credit-portfolio management, volume-oriented credit risk management is one of the components in the management of risk concentrations in the lending business.

In traditional lending business, the credit exposure or lending volume is generally the same as the nominal value of the total loan book and reflects the maximum volume at risk of default. The credit exposure is a gross value because risk-bearing financial instruments are measured before the application of any credit risk mitigation and before the recognition of any allowances for losses on loans and advances.

In the leasing business, minimum lease payments are used as a basis for measuring the gross lending volume, while principal amounts are used for this purpose in building society operations. In addition, loans and advances to customers in building society operations are reduced by the associated deposits. The maximum credit exposure comprises the total lines of credit committed to third parties, or in the case of limit overruns, the higher amounts already drawn.

LIMIT SYSTEM FOR MANAGING EXPOSURES IN TRADITIONAL LENDING BUSINESS

Limits are set in the relevant entities in the Bank sector for individual borrowers and groups of connected clients. Group limits are also set at Bank sector level for critical counterparties. As a prerequisite for prompt monitoring of limits, suitable **early-warning processes** have been established in the management units that are of material significance for the Bank sector's credit risk. In this context, financial covenants are often incorporated into loan agreements to act as early-warning indicators for changes in credit standing and as a tool for the proactive risk management of lending exposures. In addition, DZ BANK has set up processes to handle instances in which limits have been **exceeded**. The main subsidiaries have similar procedures adapted to the needs of their particular business models. Country exposure in the traditional lending business is managed by setting **country limits** for industrialized countries and emerging markets at the Bank sector level.

8.4.4. Management of credit exposure in trading transactions

MEASURING CREDIT EXPOSURE IN TRADING TRANSACTIONS

Issuer risk, replacement risk, and settlement risk are exposure-based measurements of the potential loss in trading transactions. These are determined without taking into account the likelihood of a default. In order to determine the credit exposure, securities in the banking book and trading book are predominantly measured at fair value (nominal amounts are used in building society operations), while derivatives are measured at fair value and, in respect of settlement risk, at the cash-flow-based accepted value.

The fair value of a securities exposure is used to determine the **issuer risk**. Risks relating to the underlying instruments in derivative transactions are also included in issuer risk.

Replacement risk on bilateral, over-the-counter (OTC) derivatives is calculated on the basis of fair value and the add-on for an individual transaction. The add-on takes into account specific risk factors and residual maturities. With regard to exchange-traded derivatives and OTC derivatives settled via a central counterparty (client clearing), the replacement risk vis-à-vis the customer in customer brokerage business and client clearing consists of the actual collateral exchanged (the variation margin and the initial margin), the fair value, and additional collateral requirements. To calculate the replacement risk vis-à-vis stock exchanges and central counterparties, additional potential for changes in value are also taken into consideration. Where legally enforceable, netting agreements and collateral agreements are used at counterparty level for all derivatives in order to reduce exposure. In the case of repos and securities lending transactions, haircuts are applied instead of add-ons. Unsecured money market transactions are measured at fair value.

As regards **settlement risk**, the amount to be set aside is deemed to be the amount owed, i.e. the amount actually due to be paid by the counterparty to DZ BANK. Settlement risk is recognized for the specified settlement period. It takes into account the amount and timing of outstanding cash flows for the purposes of managing the risk associated with mutual settlement at some point in the future. These future cash flows are already factored into the replacement risk through the fair value measurement and are therefore included in the risk capital requirement. As a result, settlement risk does not need to be covered with risk capital in addition to that for the other types of credit risk related to trading activities.

LIMIT SYSTEM FOR MANAGING TRADING EXPOSURE

DZ BANK has established an exposure-oriented **limit system** to limit the default risk arising from trading business. Replacement risk is managed via a structure of limits broken down into maturity bands. Unsecured money market transactions are subject to separate limits. A daily limit is set in order to manage settlement risk. A specific limit related to credit ratings or, in certain circumstances, a general limit is determined for each issuer as the basis for managing issuer risk. There is a separate limit for covered bonds that are subject to special public supervision in accordance with article 52 (4) of EU directive 2009/65. The main subsidiaries have their own comparable limit systems.

Exposure in connection with DZ BANK's trading business is measured and monitored using a standard method and a central, IT-supported limit management system to which all relevant trading systems are connected. Furthermore, the trading exposure in the Bank sector is managed on a decentralized basis at management unit level.

As in the traditional lending business, appropriate processes have also been established for the trading business to provide **early warnings and notification of limit overruns**. The member of the Board of Managing Directors responsible for risk monitoring is sent a daily list of significant exceeded trading limits. A monthly report is prepared covering the utilization of replacement and issuer risk in connection with trading activities.

Country exposure in the trading business is managed in the same way as in the traditional lending business by setting **limits for countries** at the Bank sector level.

8.4.5. Management of risk concentrations and correlation risks

RISK CONCENTRATIONS IN CREDIT AND COLLATERAL PORTFOLIOS

In managing the traditional lending business and its trading business, DZ BANK takes into account the correlation between collateral and the borrower pledging the collateral or between the collateral and the counterparty whose replacement risk the collateral is intended to mitigate. If there is a significant positive correlation between the collateral and the borrower or the counterparty pledging the collateral, the collateral is disregarded or accorded a reduced value as collateral. This situation arises, for example, where a guarantor, garnishee, or issuer forms a group of connected clients or a similar economic entity with the borrower or counterparty.

WRONG-WAY RISK

General wrong-way risk can arise in DZ BANK's trading activities. This is defined as the risk of a positive correlation between the default probability of a counterparty and the replacement value (replacement risk exposure) of a (hedging) transaction entered into with this counterparty because of a change in the macroeconomic market factors of the traded underlier (e.g. price changes for exchange rates).

Specific wrong-way risk can also occur. This is the risk of a positive correlation between the default probability of a counterparty and the replacement value (replacement risk exposure) of a (hedging) transaction entered into with this counterparty because of an increase in the default probability of the issuer of the traded underlier. This type of risk largely arises in connection with OTC equity and credit derivatives in which the underlier is a (reference) security or (reference) issuer.

The measures described below are used to appropriately monitor these risks and significantly reduce them. Wrong-way risk is not material at DZ BANK, mainly because of these measures.

MEASURES TO PREVENT CONCENTRATION RISK AND WRONG-WAY RISK

In order to prevent unwanted risks that may arise from the concentration or correlation of collateral in the trading business or from general wrong-way risk, DZ BANK has brought into force a collateral policy and its own internal 'minimum requirements for bilateral reverse repo transactions and securities lending transactions'.

These requirements are based on the Credit Support Annex (ISDA Master Agreement) and the Collateralization Annex (German Master Agreement for Financial Futures) and stipulate that, in accordance with the collateral policy, only collateral in the form of cash (mainly in euros or US dollars), investment-grade government bonds, and/or Pfandbriefe can be used for mitigating risks arising from **OTC derivatives**. Exceptions to this rule are only permitted for local cooperative banks, although a very good credit rating (at least 2B on DZ BANK's credit rating master scale) is still required for the relevant securities collateral.

The collateral must also be eligible for use as collateral at the ECB. High-grade collateral is also required for **repo transactions** in compliance with DZ BANK's own internal minimum requirements and the generally accepted master agreements, although the range of collateral is somewhat broader here than in the case of OTC derivatives.

In addition, the 'minimum requirements for bilateral reverse repos and securities lending transactions' exclude prohibited concentrations and correlations and specify collateral quality depending on the credit rating of the counterparties. In addition to daily monitoring of the relevant rules and regulations, a semi-annual report is prepared for the Credit Committee that presents the remaining concentration risk and wrong-way risk.

If material specific wrong-way risk occurs in connection with a bilateral OTC trading transaction, it is taken into account when the exposure is calculated and the Credit Committee is notified.

Furthermore, specific wrong-way risk in connection with **credit derivatives** in which the counterparty and underlying instrument form part of the financial sector is notified to the Credit Committee in a quarterly report.

8.4.6. Mitigating credit risk

COLLATERAL STRATEGY AND SECURED TRANSACTIONS

In accordance with the credit risk strategy, **customer credit quality** forms the basis for any lending decision; collateral has no bearing on the borrower's credit rating. However, depending on the structure of the transaction, collateral may be of material significance in the assessment of risk in a transaction.

Collateral in line with the level of risk in medium-term or long-term financing arrangements is generally sought. In particular, recoverable collateral equivalent to 50 percent of the finance volume is required for new business with SME customers in rating category 3D or below on the credit rating master scale.

Collateral is used as an appropriate tool for the management of risk in export finance or structured trade finance transactions. In the case of project finance, the financed project itself or the assignment of the rights in the underlying agreements typically serve as collateral.

Secured transactions in traditional lending business encompass commercial lending including financial guarantee contracts and loan commitments. Decisions to protect transactions against credit risk are made on a case-by-case basis, the protection taking the form of traditional collateral.

TYPES OF COLLATERAL

The entities in the Bank sector use all forms of **traditional loan collateral**. Specifically, these include mortgages on residential and commercial real estate, registered ship and aircraft mortgages, guarantees (including sureties, credit insurance, and letters of comfort), financial security (certain fixed-income securities, shares, and investment fund units), assigned receivables (blanket and individual assignments of trade receivables), and physical collateral.

Privileged mortgages, guarantees, and financial collateral are the main sources of collateral recognized for regulatory purposes under the CRR. Assigned receivables and physical collateral are only recognized for regulatory purposes to a limited extent.

In accordance with DZ BANK's collateral policy, only cash, investment-grade government bonds, and/or Pfandbriefe are normally accepted as **collateral for trading transactions** required by the collateral agreements used to mitigate the risk attaching to OTC derivatives. DZ BANK also enters into netting agreements to reduce the credit risk arising in connection with OTC derivatives. The prompt evaluation of collateral within the agreed margining period also helps to limit risk.

In order to reduce the issuer risk attaching to bonds and derivatives, use is made of credit derivatives, comprising credit-linked notes, credit default swaps, and total return swaps. Macro hedges are used dynamically to mitigate spread risk and risks attaching to underlying assets. In isolated cases, transactions are conducted on a back-to-back basis. For risk management purposes, the protection provided by credit derivatives is set against the reference entity risk, thereby mitigating it. The main protection providers/

counterparties in credit derivatives are financial institutions, mostly investment-grade banks in the VR rating classes 1A to 2C.

MANAGEMENT OF TRADITIONAL LOAN COLLATERAL

Collateral management is the responsibility mainly of **specialist units** outside the front-office divisions. The core tasks of these units include providing, inspecting, measuring, recording, and managing collateral and providing advice to all divisions in matters concerning collateral.

To a large extent, standardized contracts are used for the provision of collateral and the associated declarations. Specialist departments are consulted in cases where customized collateral agreements are required. Collateral is managed in separate IT systems.

Collateral **is measured** in accordance with internal guidelines and is the responsibility of back-office units. As a minimum, carrying amounts are reviewed on the monitoring dates specified by the back-office units – normally annually – or on the agreed submission date for documents relevant to measurement of the collateral. Shorter monitoring intervals may be specified for critical lending exposures. Regardless of the specified intervals, collateral is tested for impairment without delay if any indications of impairment become evident.

The workout units are responsible for **realizing collateral**. In the case of non-performing loans, it is possible to depart from the general measurement guidelines and measure collateral on the basis of its likely recoverable value and time of recovery. Contrary to the general collateralization criteria, collateral involved in restructuring exposures can be measured using market values or the estimated liquidation proceeds.

COLLATERAL MANAGEMENT

In addition to netting agreements (ISDA Master Agreement and German Master Agreement for Financial Futures), collateral agreements (Credit Support Annex to the ISDA Master Agreement and Collateralization Annex to the German Master Agreement for Financial Futures) are entered into as instruments to reduce credit exposure in OTC transactions.

DZ BANK's policy on collateral regulates the content of collateral agreements and the responsibilities and authorities for implementing the rights and obligations they confer within the bank. This policy specifies contractual parameters, such as the quality of collateral, frequency of transfer, minimum transfer amounts, and thresholds. DZ BANK regularly uses bilateral collateral agreements. Exceptions apply to cover assets and special-purpose entities, as the special legal status of the counterparties means that only unilateral collateral agreements can be usefully enforced, and to supranational or government entities. Any decision not to use a bilateral collateral agreement must be approved by a person with the relevant authority.

Netting and collateralization generally result in a significant reduction in the exposure from trading business. IT systems are used to measure exposures and collateral. Margining is carried out on a daily basis for the vast majority of collateral agreements in accordance with the collateral policy.

Collateral agreements entered into generally include thresholds and minimum transfer amounts that are independent of the credit rating. There are also some agreements with triggers based on the credit rating. In these agreements, for example, the unsecured part of an exposure is reduced in the event of a ratings downgrade or the borrower is required to make additional payments (for example, payments known as 'independent amounts').

CENTRAL COUNTERPARTIES

The EU's EMIR regulation is permanently changing the environment in which banks, insurance companies, and investment funds conduct OTC derivative transactions. Under this regulation, market players must report all exchange-traded and OTC derivatives to central trade repositories and in the future will have to trade certain standardized OTC derivatives via central counterparties (known as clearing houses). Furthermore, risk mitigation methods have to be used for OTC derivatives that are not settled centrally through a clearing house. This is intended to minimize counterparty risk.

Any market players not exempted from this new clearing obligation must be connected to a central counterparty. The market player concerned may be a direct member of a clearing house or may process its derivative contracts using a bank that is a member of the central counterparty.

DZ BANK is a direct member of the London Clearing House, which is Europe's largest clearing house for interest-rate derivatives, and of Eurex Clearing AG. The bank therefore has direct access to central counterparties for derivatives for the purposes of clearing derivative transactions.

8.4.7. Management of non-performing lending exposures

MANAGING AND MONITORING NON-PERFORMING EXPOSURES

Identified non-performing loans are transferred to the **workout units** at an early stage. By providing intensified loan management for critical exposures and applying tried-and-tested solutions, these special units lay the basis for securing and optimizing non-performing risk positions.

In its traditional lending business, DZ BANK has a comprehensive range of tools at its disposal for the early identification, close support, and high-quality monitoring of non-performing exposures. The subportfolio of non-performing loans is reviewed, updated, and reported on a quarterly basis. The process is also carried out at shorter intervals if required. This process is comprehensively supported by IT systems. A key element is the internal reporting system, which is informative, target-group-oriented, and timely. If necessary, the intensified loan management put in place for individual borrowers is transferred to task forces specially set up for this purpose. The risks in subportfolios are monitored and analyzed by means of regular reports.

Where required, similar procedures have been implemented in the main subsidiaries, which adapt them to the characteristics of the risks faced in their particular business.

POLICIES AND PROCEDURES FOR THE RECOGNITION OF ALLOWANCES FOR LOSSES ON LOANS AND ADVANCES

The following descriptions apply to DZ BANK. The main subsidiaries in the Bank sector have implemented comparable guidelines on the recognition of allowances for losses on loans and advances adapted in line with their respective business activities.

The entire transaction is deemed to be '**past due**' if interest payments, repayments of principal, or other receivables are more than one day in arrears. A borrower is classified as in '**default**' if the borrower is not expected to meet his/her payment obligations in full without the need for action such as the recovery of any available collateral. Regardless of this definition, a borrower is classified as in default according to CRR criteria if payments are past due by more than 90 days.

If there is objective evidence that the value of repayments under **loans** is impaired, a review is carried out to establish whether it is likely that the borrower will not meet his/her contractual obligations in full and whether a financial loss could be incurred. **Specific loan loss allowances** are recognized for the difference between the carrying amount of the loan or advance and the net present value of the anticipated payments (including any proceeds from the recovery of collateral), if the carrying amount of the loan or advance is higher than the net present value.

Provisions for loan commitments and **liabilities under financial guarantee contracts** are recognized in an amount equivalent to the difference between the present value of the potential default amount and the present value of expected payments, provided that it is probable the obligation will actually be incurred.

If no specific allowances are recognized for losses on payments due under loans or if there are no provisions for loan commitments or liabilities under financial guarantee contracts, then these transactions are recognized in the **portfolio loan loss allowance**. Portfolio loan loss allowances consist of the loss allowances for the portfolio of loans and advances, provisions for loan commitments, and liabilities under financial guarantee contracts. As soon as an impairment becomes apparent or a transaction is identified as requiring a provision or liability, it is derecognized from the portfolio and recognized as a specific loan loss allowance. The calculation of the portfolio loan loss allowance is based on the method for the calculation of expected losses used for regulatory purposes.

Latent country risk is recognized in the portfolio loan loss allowances.

In **trading units**, derivatives business and parts of the securities and money market business are measured at fair value through profit or loss. Any impairment is therefore immediately recognized in the income statement and on the balance sheet, precluding the need for the recognition of any allowances for losses on loans and advances. For securities and money market placements that are recognized at amortized cost or fair value through other comprehensive income, impairment losses are determined using the same procedure as that for loans.

BSH and TeamBank recognize **specific loan loss allowances evaluated on a group basis** for their retail business in addition to specific loan loss allowances. These specific loan loss allowances evaluated on a group basis are based on cash flows from credit portfolios with the same risk characteristics analyzed using migration scenarios and probabilities of default.

NON-PERFORMING LOANS

The entities in the Bank sector classify a loan as non-performing if it has been rated between 5A and 5E on the VR master scale. This corresponds to the definition of default specified by the CRR. Non-performing loans are also referred to by the abbreviation NPLs.

The following key figures are used to manage non-performing loans:

– Loan loss allowance ratio (balance of allowances for losses on loans and advances as a proportion of total lending volume)
– Risk cover ratio (balance of allowances for losses on loans and advances as a proportion of the volume of non-performing loans)
– NPL ratio (volume of non-performing loans as a proportion of total lending volume).

The balance of allowances for losses on loans and advances is calculated as the total of specific loan loss allowances, portfolio loan loss allowances, provisions for loan commitments, and liabilities under financial guarantee contracts.

8.4.8. Credit-portfolio management

In risk-related credit-portfolio management, a distinction is made between the expected loss and unexpected loss arising from the credit portfolio as a whole. The calculation of an expected loss for each individual transaction prevents a creeping erosion of equity. Most of the management units determine the standard risk costs necessary for this calculation. These costs vary according to credit rating.

Credit portfolio models are also used together with value-at-risk methods to quantify unexpected losses that may arise from the credit portfolios of management units. Credit value-at-risk describes the risk of unexpected losses arising should a default event occur in the credit portfolio. Credit portfolio models are used to measure the credit value-at-risk. Key factors in determining this credit risk include the lending volume, concentrations in terms of sectors, countries, and/or counterparties, and the credit quality structure of the credit portfolio. The measurement includes credit risk from both lending and trading businesses.

The credit portfolio in the Bank sector is managed by limiting the credit value-at-risk to the upper loss limit set for credit risk.

8.5. LENDING VOLUME

8.5.1. Lending volume as risk factor

The amount and structure of the lending volume are key factors in determining the credit risk. For the purposes of internal credit risk management in the Bank sector, the lending volume is broken down by credit-risk-bearing instrument – traditional lending, securities business, and derivatives and money market business. This breakdown corresponds to the risk classes required for the external reporting of risks arising from financial instruments.

The credit-risk-bearing instruments are also classified by sector, country group, credit rating, and term to maturity so that volume concentrations can be identified. Particularly in the case of an accumulation of exposures that have longer terms to maturity and a non-investment-grade rating, there is a danger that the credit risk will materialize, causing losses with a negative impact on the financial performance and financial position of the DZ BANK Group.

FIG. 19 – BANK SECTOR: RECONCILIATION OF THE LENDING VOLUME

€ billion

	Lending volume for internal management accounts		Reconciliation			
			Scope of consolidation		Carrying amount and measurement	
	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Traditional lending business	209.8	206.8	1.9	1.8	9.6	4.5
Securities business	78.4	84.1	–	–	-15.3	-16.7
Derivatives business	10.6	9.8	–	–	-13.8	-9.6
Money market business	3.5	2.9	–	–	27.2	26.0
Total	**302.3**	303.7	**1.9**	1.8	**7.8**	4.3

8.5.2. Reconciliation of lending volume to the consolidated financial statements

Figure 19 shows a reconciliation of the gross lending volume on which the risk management is based to individual balance sheet items in order to provide a transparent illustration of the link between the consolidated financial statements and risk management. There are discrepancies between the internal management and external financial reporting measurements for some products owing to the focus on the risk

Lending volume for the consolidated financial statements

Dec. 31, 2015		Dec. 31, 2014			Note
221.3	**65.8**	213.2	**64.0**	**Loans and advances to banks**	
	65.9		64.1	of which: loans and advances to banks excluding money market placements	50
	-0.1		-0.1	of which: allowances for losses on loans and advances to banks	52
	124.2		**119.7**	**Loans and advances to customers**	
	126.2		121.9	Loans and advances to customers excluding money market placements	51
	-2.0		-2.2	of which: allowances for losses on loans and advances to customers	52
	31.3		**29.5**	**Financial guarantee contracts and loan commitments**	**87**
63.2	**63.2**	67.4	**67.4**	**Bonds and other securities**	
	10.9		12.2	of which: financial assets held for trading/bonds excluding money market placements	54
	0.8		0.9	of which: financial assets held for trading/promissory notes, registered bonds, and loans and advances	54
	51.5		54.4	of which: investments/bonds excluding money market placements	55
-3.3	**-3.3**	0.2	**0.2**	**Derivatives**	
	0.4		0.4	of which: derivatives used for hedging (positive fair values)	53
	21.7		24.9	of which: financial assets held for trading/derivatives (positive fair values)	54
	-1.6		-2.6	of which: derivatives used for hedging (negative fair values)	65
	-23.7		-22.4	of which: financial liabilities held for trading/derivatives (negative fair values)	66
30.7	**30.7**	28.9	**28.9**	**Money market placements**	
	14.9		15.2	of which: loans and advances to banks/money market placements	50
	0.6		0.5	of which: loans and advances to customers/money market placements	51
	0.4		0.5	of which: financial assets held for trading/money market instruments	54
	14.7		12.3	of which: financial assets held for trading/money market placements	54
	0.1		0.3	of which: investments/money market instruments	55
312.0		309.7		**Total**	
Balance as at Dec. 31, 2015		**9.7**	**3.2%**		
Balance as at Dec. 31, 2014		6.1	2.0%		

content of the items. The other main reasons for the discrepancies between the internal management figures and those in the external financial statements are differences in the scope of consolidation and differences in recognition and measurement methods.

Differences in the **scope of consolidation** result from the fact that, in internal credit risk management, only the entities in the Bank sector that contribute significantly to the overall risk of the sector are included.

The discrepancy in the **securities business** is mainly due to the variations in carrying amounts that arise because credit derivatives are offset against the issuer risk attaching to the underlying transaction in the internal management accounts, whereas such derivatives are recognized at their fair value as financial assets or financial liabilities held for trading in the consolidated financial statements.

Measurement differences in **derivatives business** and **money market business** are mainly because countervailing positions are offset for the purposes of risk management, whereas positions must not be netted in this way in the consolidated financial statements. In addition, add-ons are attached to the current fair values of derivative positions in the internal management accounts to take account of potential future changes in their fair value. By contrast, the external financial statements focus exclusively on the fair values determined on the valuation date, and, unlike in the internal accounts, collateral must not be recognized for risk mitigation purposes.

In **money market business**, further discrepancies arise between the consolidated financial statements and internal credit risk reports due to the method in which repo transactions are recognized. In contrast to the consolidated financial statements, securities provided or received as collateral are offset against the corresponding assets or liabilities for the purposes of the internal management accounts.

8.5.3. Change in lending volume

The **total lending volume** of the **Bank sector** decreased slightly in the year under review, from €303.7 billion as at December 31, 2014 to €302.3 billion as at December 31, 2015.

There was an increase in the volume of **traditional lending business**, which rose from €206.8 billion as at December 31, 2014 to €209.8 billion at the end of 2015. The credit quality breakdown within this type of business was unchanged year on year.

The lending volume in the **securities business** was down by 7 percent, from €84.1 billion as at December 31, 2014 to €78.4 billion as at December 31, 2015. This reduction was largely attributable to DZ BANK.

Owing to an increased exposure, mainly at DZ BANK, the lending volume in the **derivatives and money market business** rose by 11 percent to €14.0 billion at the end of the year under review (December 31, 2014: €12.7 billion).

At **DZ BANK**, the **total lending volume** declined by almost 2 percent, from €160.6 billion as at December 31, 2014 to €158.0 billion as at December 31, 2015. This decrease related to the **securities business** (December 31, 2015: €41.7 billion; December 31, 2014: €43.8 billion) and **traditional lending business** (December 31, 2015: €104.0 billion; December 31, 2014: €105.5 billion). By contrast, the lending volume in the **derivatives and money market business** advanced by 8 percent, from €11.3 billion at the end of 2014 to €12.3 billion as at December 31, 2015. This increase was fueled in equal part by the derivatives business (particularly loans and advances to central counterparties) and unsecured money market business.

8.5.4. Collateral called in

Given the efficiency of the workout process in the **Bank sector**, the role played by calling in collateral during the course of workout procedures for non-performing borrowers was as negligible in 2015 as it had been in 2014. The collateral called in by the entities in the Bank sector amounted to €18 million as at December 31, 2015 (December 31, 2014: €37 million).

8.5.5. Sector structure of the credit portfolio

Figure 20 shows the breakdown of the credit portfolio by sector, in which the lending volume is classified according to the industry codes used by Deutsche Bundesbank. This also applies to the other sector breakdowns related to credit risk in this opportunity and risk report.

As at December 31, 2015, a significant proportion (35 percent) of the lending volume in the **Bank sector** continued to be concentrated in the financial sector (December 31, 2014: 38 percent). In addition to the local cooperative banks, the borrowers in this customer segment comprised banks from other sectors of the banking industry and other financial institutions.

As at December 31, 2015, a significant proportion (57 percent) of **DZ BANK's** lending volume continued to be concentrated in the financial sector. The composition of this customer segment is the same both at DZ BANK and in the Bank sector. Loans and advances to public-sector borrowers fell by €1.1 billion year on year, with particularly large decreases in Germany and Italy.

In its role as a central institution for the Volksbanken Raiffeisenbanken cooperative financial network, DZ BANK provides funding for the entities in the Bank sector and for the cooperative banks. For this reason, the cooperative banks account for one of the largest receivables items in the DZ BANK Group's credit portfolio. DZ BANK also supports the cooperative banks in the provision of larger-scale funding to corporate customers.

The resulting syndicated business, DZ BANK, DG HYP and DVB's direct business with corporate customers in Germany and abroad, the retail real-estate business under the umbrella of BSH, and TeamBank's consumer finance business determine the sectoral breakdown of the remainder of the portfolio.

8.5.6. Geographical structure of the credit portfolio

Figure 21 shows the geographical distribution of the credit portfolio by country group. The lending volume is assigned to the individual country groups using the International Monetary Fund's breakdown, which is updated annually. This also applies to the other

FIG. 20 – BANK SECTOR: LENDING VOLUME, BY SECTOR

	Traditional lending business		Securities business		Derivatives and money market business		Total	
€ billion	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Financial sector	68.2	73.3	26.8	34.5	9.7	8.6	104.7	116.3
Public sector	6.2	6.7	45.4	41.9	0.8	1.0	52.4	49.7
Corporates	84.0	80.0	2.3	2.6	2.6	2.2	88.9	84.8
Retail	45.6	42.6	2.9	3.9	–	–	48.6	46.5
Industry conglomerates	5.4	3.6	1.1	1.3	0.8	0.9	7.2	5.7
Other	0.5	0.6	–	–	–	–	0.5	0.6
Total	**209.8**	206.8	**78.4**	84.1	**14.0**	12.7	**302.3**	303.7

FIG. 21 – BANK SECTOR: LENDING VOLUME, BY COUNTRY GROUP

	Traditional lending business		Securities business		Derivatives and money market business		Total	
€ billion	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Germany	168.8	167.4	52.3	54.5	8.8	8.7	229.8	230.6
Other industrialized countries	27.5	26.6	22.7	26.2	4.7	3.4	54.9	56.2
Advanced economies	4.2	4.1	0.6	0.4	0.1	–	4.9	4.6
Emerging markets	9.3	8.7	0.7	0.8	0.2	0.2	10.2	9.7
Supranational institutions	–	–	2.2	2.2	0.3	0.3	2.5	2.6
Total	**209.8**	206.8	**78.4**	84.1	**14.0**	12.7	**302.3**	303.7

country-group breakdowns related to credit risk in this opportunity and risk report.

As at December 31, 2015, 94 percent of the lending in the **Bank sector** and 95 percent of the total lending by **DZ BANK** was concentrated in Germany and other industrialized countries. These percentages were unchanged compared with December 31, 2014.

8.5.7. Residual maturity structure of the credit portfolio

RESIDUAL MATURITIES IN THE OVERALL CREDIT PORTFOLIO

The breakdown of the credit portfolio by residual maturity presented in figure 22 for the **Bank sector** as at December 31, 2015 shows that the lending volume had decreased by €1.2 billion in the short-maturity band compared with December 31, 2014, which was largely attributable to methodology changes (statistical reclassifications) and had the biggest impact on the presentation of TeamBank's portfolio. The €2.7 billion volume reduction in the medium-term maturity band was mainly caused by shifts into the shorter-term maturity band and by the scaling back of the portfolio at DG HYP. The increase of €2.6 billion in the lending volume in the longer-term maturity band was predominantly a consequence of the continual expansion of BSH's customer lending business.

LENDING VOLUME PAST DUE BUT NOT IMPAIRED

Figures 23 and 24 show the portion of the lending volume that is past due but not impaired. The disclosures largely relate to traditional lending business.

No valuation allowances are recognized for these loans because it can generally be assumed that the amounts past due will be repaid promptly. Furthermore, it can be assumed that the entire amounts due under the lending agreements concerned can be collected by recovering collateral. Because of the conservative risk provisioning policy of the entities in the Bank sector, past-due loans only account for a relatively small proportion of the overall credit portfolio.

The contraction in the volume of loans that were past due but not impaired in the **Bank sector** was attributable, in particular, to decreases in past-due loans in arrears by up to 5 days in BSH's retail business. The past-due loans in arrears by more than 3 months amounting to €237 million (December 31, 2014: €410 million) were predominantly loans secured by mortgages.

At **DZ BANK**, the volume of loans that were past due but not impaired fell from €102 million as at December 31, 2014 to €87 million as at December 31, 2015.

8.5.8. Rating structure of the credit portfolio

RATING STRUCTURE OF THE TOTAL LENDING VOLUME

Figure 25 shows the Bank sector's consolidated lending volume by rating class according to the VR credit rating master scale. 'Not rated' comprises counterparties for which a rating classification is not required.

In the **Bank sector**, the proportion of the total lending volume accounted for by rating classes 1A to 3A (investment grade) as at December 31, 2015 was unchanged year on year at 74 percent. Rating classes 3B to 4E (non-investment grade) represented 23 percent of the total lending volume as at the reporting date (December 31, 2014: 22 percent). Defaults in

FIG. 22 – BANK SECTOR: LENDING VOLUME, BY RESIDUAL MATURITY

	Traditional lending business		Securities business		Derivatives and money market business		Total	
€ billion	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
≤ 1 year	44.0	47.5	15.3	14.9	9.5	7.6	68.8	70.0
> 1 year to ≤ 5 years	47.3	49.5	29.4	30.1	1.8	1.7	78.6	81.3
> 5 years	118.5	109.9	33.7	39.1	2.7	3.3	154.9	152.3
Total	**209.8**	**206.8**	**78.4**	**84.1**	**14.0**	**12.7**	**302.3**	**303.7**

rating classes 5A to 5E accounted for 2 percent of the Bank sector's total lending volume as at December 31, 2015 and thus remained at the low level of the previous year.

Rating classes 1A to 3A (investment grade) also dominated lending at **DZ BANK**, where they accounted for 88 percent of the total lending volume (December 31, 2014: 89 percent). The proportion of the total lending volume accounted for by rating classes 3B to 4E (non-investment grade) was slightly higher year on year, rising from 9 percent to 10 percent between December 31, 2014 and December 31, 2015. Defaults (rating classes 5A to 5E) accounted for 2 percent of the total lending volume as at December 31, 2015, which was again largely unchanged year on year.

SINGLE BORROWER CONCENTRATIONS

As at December 31, 2015, the 10 counterparties associated with the largest lending volumes accounted for 11 percent of total lending in the **Bank sector** (December 31, 2014: 9 percent). The proportion was also 11 percent at **DZ BANK** – as it had been at December 31, 2014.

These counterparties largely comprised financial-sector and public-sector borrowers domiciled in Germany with an investment-grade rating.

FIG. 23 – BANK SECTOR: LENDING VOLUME PAST DUE BUT NOT IMPAIRED, BY SECTOR

	Past due up to 5 days		Past due > 5 days to 1 month		Past due > 1 month to 2 months		Past due > 2 months to 3 months		Past due > 3 months		Total	
€ million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Financial sector	9	2	–	–	1	1	–	–	5	2	15	6
Public sector	–	–	1	–	–	1	–	–	–	–	1	1
Corporates	22	36	244	34	31	75	10	43	215	381	522	571
Retail	18	730	18	10	6	11	2	3	17	25	61	778
Industry conglomerates	3	1	–	–	–	–	–	–	–	–	4	1
Other	–	–	–	–	–	1	–	–	–	1	–	2
Total	**53**	**770**	**263**	**45**	**39**	**88**	**13**	**47**	**237**	**410**	**603**	**1,360**

FIG. 24 – BANK SECTOR: LENDING VOLUME PAST DUE BUT NOT IMPAIRED, BY COUNTRY GROUP

	Past due up to 5 days		Past due > 5 days to 1 month		Past due > 1 month to 2 months		Past due > 2 months to 3 months		Past due > 3 months		Total	
€ million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Germany	43	761	69	39	39	77	13	16	70	141	233	1,033
Other industrialized countries	2	8	42	5	–	3	–	13	52	132	96	161
Advanced economies	1	1	60	–	–	–	–	9	43	58	104	69
Emerging markets	7	–	92	–	–	8	–	10	71	79	170	97
Supranational institutions	–	–	–	–	–	–	–	–	–	–	–	–
Total	**53**	**770**	**263**	**45**	**39**	**88**	**13**	**47**	**237**	**410**	**603**	**1,360**

FIG. 25 – BANK SECTOR: LENDING VOLUME, BY RATING CLASS

		Traditional lending business		Securities business		Derivatives and money market business		Total	
€ billion		Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Investment grade	1A	1.8	2.3	26.9	37.1	1.2	1.4	30.0	40.7
	1B	1.8	2.3	10.3	4.2	1.1	1.2	13.3	7.7
	1C	63.9	65.6	11.8	11.9	3.9	4.0	79.6	81.5
	1D	2.3	1.8	2.6	1.8	0.3	0.1	5.2	3.7
	1E	2.3	2.1	1.3	1.0	0.4	0.1	4.0	3.2
	2A	7.8	8.1	1.7	0.9	2.0	1.2	11.5	10.3
	2B	6.2	6.2	8.5	7.1	1.5	0.7	16.2	13.9
	2C	11.6	11.6	2.4	5.1	0.9	1.3	15.0	17.9
	2D	9.1	8.3	3.0	2.4	0.7	0.9	12.8	11.6
	2E	16.5	14.1	4.2	4.2	0.8	0.7	21.5	19.0
	3A	12.8	13.7	0.8	1.3	0.3	0.2	13.9	15.3
Non-investment grade	3B	16.8	15.4	0.6	1.1	0.3	0.1	17.7	16.6
	3C	11.6	11.2	1.6	1.6	0.1	0.1	13.3	12.9
	3D	13.5	8.8	0.6	1.0	0.1	0.1	14.2	9.8
	3E	3.5	8.6	0.1	0.7	–	0.1	3.6	9.4
	4A	2.8	2.1	0.1	0.1	–	–	2.9	2.2
	4B	6.9	1.7	0.2	0.2	–	–	7.1	1.9
	4C	5.5	5.4	0.1	0.2	–	–	5.6	5.6
	4D	0.6	5.4	–	–	–	–	0.6	5.5
	4E	4.5	4.2	0.1	0.2	–	0.1	4.6	4.5
Default		5.0	5.7	0.2	0.2	–	–	5.2	5.9
Not rated		2.8	2.5	1.2	1.9	0.4	0.4	4.5	4.8
Total		**209.8**	**206.8**	**78.4**	**84.1**	**14.0**	**12.7**	**302.3**	**303.7**

INVESTMENT-GRADE LENDING VOLUME

Figures 26 and 27 show the lending volume that is neither impaired nor past due, i.e. the investment-grade proportion of the total credit portfolio.

In the **Bank sector** the proportion of the total lending volume represented by this portfolio as at December 31, 2015 was 98 percent, unchanged on December 31, 2014.

The situation was similar at **DZ BANK**, where the proportion of the total lending volume with an investment-grade rating was unchanged year on year at 99 percent as at December 31, 2015.

As in previous years, the large proportion of investment-grade business is attributable to the risk-conscious lending policy pursued by the entities in the Bank sector.

8.5.9. Collateralized lending volume

Figure 28 shows the breakdown of the collateralized lending volume at overall portfolio level by type of collateral and class of risk-bearing instrument. In the case of traditional lending business, figures are generally reported before the application of any offsetting agreements, whereas the collateralized exposure in the securities business and derivatives and money market business are shown net.

As at December 31, 2015, the collateralized lending volume in the **Bank sector** had risen to €90.4 billion from €88.9 billion as at December 31, 2014. The collateralization rate was 30 percent at the reporting date (December 31, 2014: 29 percent).

In the Bank sector's **traditional lending business**, most of the collateralized lending volume – 81 percent as at

FIG. 26 – BANK SECTOR: LENDING VOLUME NEITHER IMPAIRED NOR PAST DUE, BY SECTOR

€ billion	Total portfolio Dec. 31, 2015	Total portfolio Dec. 31, 2014	Portfolio neither impaired nor past due Dec. 31, 2015	Portfolio neither impaired nor past due Dec. 31, 2014
Financial sector	104.7	116.3	104.5	113.6
Public sector	52.4	49.7	52.4	48.7
Corporates	88.9	84.8	85.4	83.8
Retail	48.6	46.5	47.5	45.1
Industry conglomerates	7.2	5.7	7.2	5.7
Other	0.5	0.6	0.5	0.6
Total	**302.3**	**303.7**	**297.4**	**297.6**

FIG. 27 – BANK SECTOR: LENDING VOLUME NEITHER IMPAIRED NOR PAST DUE, BY COUNTRY GROUP

€ billion	Total portfolio Dec. 31, 2015	Total portfolio Dec. 31, 2014	Portfolio neither impaired nor past due Dec. 31, 2015	Portfolio neither impaired nor past due Dec. 31, 2014
Germany	229.8	230.6	227.1	226.9
Other industrialized countries	54.9	56.2	53.9	55.1
Advanced economies	4.9	4.6	4.4	4.1
Emerging markets	10.2	9.7	9.6	9.0
Supranational institutions	2.5	2.6	2.5	2.6
Total	**302.3**	**303.7**	**297.4**	**297.6**

FIG. 28 – BANK SECTOR: COLLATERALIZED LENDING VOLUME, BY TYPE OF COLLATERAL

€ billion	Traditional lending business Dec. 31, 2015	Traditional lending business Dec. 31, 2014	Securities business Dec. 31, 2015	Securities business Dec. 31, 2014	Derivatives and money market business Dec. 31, 2015	Derivatives and money market business Dec. 31, 2014	Total Dec. 31, 2015	Total Dec. 31, 2014
Guarantees, indemnities, risk subparticipation	6.9	13.0	–	–	0.3	0.4	7.3	13.3
Credit insurance	2.7	1.9	–	–	–	–	2.7	1.9
Land charges, mortgages, ship mortgages	72.7	65.6	–	–	–	0.1	72.8	65.6
Pledged loans and advances, assignments, other pledged assets	5.3	5.2	–	–	–	–	5.3	5.2
Financial collateral	1.6	1.3	–	–	0.3	0.4	1.9	1.6
Other collateral	0.4	1.3	–	–	–	–	0.4	1.3
Collateralized lending volume	**89.7**	**88.1**	**–**	**–**	**0.7**	**0.8**	**90.4**	**88.9**
Gross lending volume	209.8	206.8	78.4	84.1	14.0	12.7	302.3	303.7
Uncollateralized lending volume	**120.1**	**118.8**	**78.4**	**84.1**	**13.3**	**11.9**	**211.9**	**214.8**
Collateralization rate	**42.7%**	**42.6%**	**–**	**–**	**5.2%**	**6.4%**	**29.9%**	**29.3%**

December 31, 2015 (December 31, 2014: 74 percent) – was accounted for by lending secured by charges over physical assets such as land charges, mortgages, and registered ship mortgages. These types of collateral are particularly important for BSH, DG HYP, and DVB. In contrast, charges over physical assets are of lesser importance at DZ BANK because DZ BANK bases its lending decisions primarily on borrower credit quality.

In **securities transactions**, there is generally no further collateralization to supplement the hedging activities already taken into account. Equally, in the **derivatives**

and money market business, collateral received under collateral agreements is already factored into the calculation of gross lending volume with the result that only a comparatively low level of collateral (personal and financial collateral) is then additionally reported.

At €7.5 billion, **DZ BANK's** collateralized lending volume at December 31, 2015 was up year on year (December 31, 2014: €7.2 billion). The collateralization rate was 5 percent at the reporting date (December 31, 2014: 4 percent).

In terms of traditional collateral, **securities transactions** are generally conducted on an unsecured basis. A low level of personal collateral (guarantees and indemnity agreements) and financial collateral is used to mitigate risk in **derivatives and money market business**.

8.5.10. Securitizations

The easing of the situation in the securitizations markets that has been discernible for some time has also impacted on the Bank sector's credit portfolio in the form of lower credit value-at-risk for securitizations. This trend is accompanied by a sharp contraction in the portfolio of securitizations.

Consequently, a detailed breakdown of the securitization exposure in section 8.6 and the disclosures on allowances for losses on loans and advances (section 8.8.2) and credit value-at-risk (section 8.9) are no longer provided. Instead, the securitization exposure is presented in aggregated form in this section of the opportunity and risk report, with the focus primarily on asset-backed securities.

The ABS portfolio of the Bank sector is predominantly held by DZ BANK and DG HYP. It had a fair value of €3,528 million as at the reporting date (December 31, 2014: €4,721 million). This includes the ABS wind-down portfolio dating back to the period before the financial crisis, which had a fair value of €2,851 million (December 31, 2014: €3,851 million).

The changes in the wind-down portfolio in 2015 were largely in line with expectations, both in terms of the contraction of the portfolio as a result of redemptions and in terms of the overall performance of the portfolio. In addition, DZ BANK acts as a sponsor in ABCP programs that are funded by issuing money market-linked asset-backed commercial paper or liquidity lines. The ABCP programs are made available for DZ BANK customers who then securitize their own assets via these companies.

8.6. PORTFOLIOS WITH INCREASED RISK CONTENT

The following disclosures relating to exposures in subportfolios also form part of the above analyses of the entire credit portfolio. However, these subportfolios have been analyzed separately because of their significance for the risk position.

A small volume of lending in connection with mergers and acquisitions is carried out in the Bank sector, where it is undertaken exclusively by DZ BANK. Because these **leveraged finance transactions** are now of less significance to credit risk, details of this subportfolio, which were disclosed in the 2014 opportunity and risk report (section 8.6.3.), are not provided here.

8.6.1. Eurozone periphery countries and other global trouble spots

CHANGE IN LENDING VOLUME

As at December 31, 2015, loans and advances to borrowers in the countries directly affected by the **European sovereign debt crisis** attributable to the **Bank sector** and to **DZ BANK** amounted to €9,684 million (December 31, 2014: €11,609 million) and €3,196 million (December 31, 2014: €3,316 million) respectively. The fall in the lending volume was largely attributable to disposals of bonds in Italy and to maturities and disposals of bonds in Spain.

In 2015, negative political and macroeconomic developments resulted in a deterioration in the credit quality of **Russia**. The lending exposures of the **Bank sector** and of **DZ BANK** to Russian counterparties were reduced from €764 million and €760 million respectively as at December 31, 2014 to €578 million and €571 million respectively as at December 31, 2015.

Figures 29 and 30 show the borrower structures in the Bank sector by credit-risk-bearing instrument.

FIG. 29 – BANK SECTOR: LOANS AND ADVANCES TO BORROWERS IN EUROZONE PERIPHERY COUNTRIES

	Traditional lending business[1]		Securities business		Derivatives and money market business		Total	
€ million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Portugal	**106**	123	**741**	806	**–**	1	**847**	930
of which: public sector	–	–	645	664	–	–	645	664
of which: non-public sector	106	123	96	142	–	1	202	266
of which: financial sector	–	–	4	23	–	1	5	24
Italy	**209**	215	**2,563**	3,465	**17**	20	**2,790**	3,700
of which: public sector	–	–	2,088	2,787	–	–	2,088	2,787
of which: non-public sector	209	215	475	678	17	20	702	913
of which: financial sector	31	36	213	275	15	17	259	327
Ireland	**893**	897	**150**	201	**546**	294	**1,589**	1,392
of which: public sector	–	–	–	–	–	–	–	–
of which: non-public sector	893	897	150	201	546	294	1,589	1,392
of which: financial sector	14	5	136	172	545	294	695	471
Greece	**41**	156	**–**	4	**–**	–	**41**	160
of which: public sector	–	–	–	–	–	–	–	–
of which: non-public sector	41	156	–	4	–	–	41	160
of which: financial sector	–	–	–	1	–	–	–	1
Spain	**336**	372	**4,055**	5,042	**26**	12	**4,416**	5,426
of which: public sector	33	43	1,875	2,427	–	–	1,908	2,470
of which: non-public sector	303	329	2,180	2,616	26	12	2,509	2,956
of which: financial sector	20	26	1,370	1,553	22	11	1,412	1,590
Total	**1,585**	1,763	**7,510**	9,518	**589**	327	**9,684**	11,609
of which: public sector	33	43	4,609	5,878	–	–	4,641	5,921
of which: non-public sector	1,553	1,720	2,901	3,640	589	327	5,043	5,687
of which: financial sector	65	67	1,723	2,024	583	323	2,370	2,414

1 Unlike the other presentations of lending volume, traditional lending business in this case includes equity investments.

FIG. 30 – BANK SECTOR: LOANS AND ADVANCES TO BORROWERS IN OTHER GLOBAL TROUBLE SPOTS

	Traditional lending business[1]		Securities business		Derivatives and money market business		Total	
€ million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Russia	**542**	737	**22**	24	**15**	3	**578**	764
of which: public sector	–	–	16	16	–	–	16	16
of which: non-public sector	542	737	5	8	15	3	561	748
of which: financial sector	97	215	–	–	15	3	112	218
Hungary	**167**	184	**34**	42	**26**	27	**227**	253
of which: public sector	–	–	34	42	–	–	34	42
of which: non-public sector	167	184	–	–	26	27	193	211
of which: financial sector	67	67	–	–	4	5	71	72
Total	**708**	921	**56**	66	**41**	30	**805**	1,017
of which: public sector	–	–	51	58	–	–	51	58
of which: non-public sector	708	921	5	8	41	30	754	959
of which: financial sector	164	282	–	–	19	8	183	290

1 Unlike the other presentations of lending volume, traditional lending business in this case includes equity investments.

8.6.2. Shipping finance

BACKGROUND

DVB is the main entity in the Bank sector that engages in shipping finance. DZ BANK also has this type of finance in its credit portfolio, but the proportion is significantly lower than at DVB.

DVB operates at an international level and offers finance for various means of transport, such as ships, aircraft, offshore service vessels, drilling platforms, and rail transport rolling stock. Criteria for granting shipping loans include the quality and recoverability of the shipping asset itself, the cash flow that the borrower can generate with the ship concerned to repay the debt, and the extent to which the ship involved can be remarketed. DVB generally only enters into asset finance arrangements for which the financed ship can be used as collateral.

DZ BANK offers shipping finance as part of its joint credit business with the local cooperative banks. Shipping finance in the narrow sense refers to capital investment in mobile assets involving projects that are separately defined, both legally and in substance, in which the borrower is typically a special-purpose entity whose sole business purpose is the construction and operation of ships. In such arrangements, the debt is serviced from the cash flows generated by the ship. The assessment of the credit risk is therefore based not only on the recoverability of the asset, but also in particular on the capability of the ship to generate earnings. To reduce risk, the finance must normally be secured by a first mortgage on the vessel and the assignment of insurance claims and proceeds. A distinction is made between shipping finance in the narrow sense and finance provided for shipyards and shipping companies. The following disclosures for DZ BANK relate solely to shipping finance in the narrow sense.

At DVB and DZ BANK, the lending volume associated with shipping finance comprises loans and advances to customers, guarantees and indemnities, irrevocable loan commitments, securities, and derivatives.

CHANGE IN LENDING VOLUME

The global economic crisis and the sovereign debt crisis in Europe have in some cases led to falling asset values and a deterioration in credit quality in the shipping finance business. This has given rise to an increased credit risk for DVB and DZ BANK.

As at December 31, 2015, the Bank sector's shipping finance portfolio had a value of €12,684 million (December 31, 2014: €11,124 million). Figure 31 shows the portfolio structure by country group and credit-risk-bearing instrument.

As at December 31, 2015, **DVB's** shipping finance portfolio comprised finance provided for 1,328 vessels and 0.5 million containers (December 31, 2014: 1,208 vessels and 0.6 million containers). The average exposure as at the reporting date was €41 million (December 31, 2014: €36 million) and the largest single exposure was €213 million, as it had been at the end of 2014.

DVB's total exposure as at December 31, 2015 amounted to €11,789 million compared with €10,122 million as at December 31, 2014. The increase was primarily attributable to exchange rate fluctuations (appreciation of the US dollar). The shipping finance portfolio is broadly diversified

FIG. 31 – BANK SECTOR: SHIPPING FINANCE LENDING VOLUME, BY COUNTRY GROUP

	Traditional lending business		Securities business		Derivatives business		Total	
€ million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Germany	1,588	1,594	–	–	12	34	1,599	1,628
Other industrialized countries	7,004	5,741	–	–	15	23	7,020	5,764
Advanced economies	2,173	2,191	–	–	–	2	2,173	2,193
Emerging markets	1,883	1,512	–	20	8	8	1,892	1,539
Total	**12,649**	**11,037**	**–**	**20**	**35**	**66**	**12,684**	**11,124**

in terms of geographical region, type of vessel, borrower, charterer, and shipping activity. The largest portion of the volume lent is attributable to the financing of tankers. As at December 31, 2015, this proportion had risen by 3 percentage points to 46 percent of the total volume of shipping finance. The increase related to the crude oil tanker, chemical tanker, and gas tanker segments of the shipping market, while the proportion of the portfolio attributable to product tankers as at December 31, 2015 was virtually unchanged year on year at 11 percent. The portfolio was almost fully collateralized in compliance with DVB strategy.

DZ BANK's shipping finance exposures amounted to €895 million as at December 31, 2015 (December 31, 2014: €1,002 million). Broken down by type of ship, the portfolio was focused mainly on multifunctional merchant vessels and, in terms of carrying capacity, comprised almost exclusively small- to medium-sized vessels. As in 2014, DZ BANK's shipping finance portfolio in 2015 was mainly concentrated in Germany but broadly diversified by type of vessel, borrower, charterer, and shipping activity.

8.7. NON-PERFORMING LENDING VOLUME

8.7.1. Impaired lending volume

Figures 32 and 33 show the impaired lending volume. The collateral shown is available for securing the lending volume after specific loan loss allowances. The disclosures largely relate to traditional lending business.

As at December 31, 2015, the **Bank sector's** lending volume after loan loss allowances stood at €2,623 million (December 31, 2014: €2,755 million), a decline that was mainly attributable to DZ BANK.

FIG. 32 – BANK SECTOR: IMPAIRED LENDING VOLUME AND COLLATERAL, BY SECTOR

	Amount before specific loan loss allowances		Specific loan loss allowances		Amount after specific loan loss allowances		Collateral	
€ million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Financial sector	148	217	46	121	102	96	66	69
Public sector	–	–	–	–	–	–	–	–
Corporates	3,023	3,238	1,137	1,236	1,886	2,002	1,171	1,141
Retail	1,014	1,146	391	490	623	656	599	595
Industry conglomerates	18	–	6	–	12	–	11	–
Other	27	61	27	61	–	–	–	–
Total	**4,230**	**4,663**	**1,607**	**1,908**	**2,623**	**2,755**	**1,847**	**1,805**

FIG. 33 – BANK SECTOR: IMPAIRED LENDING VOLUME AND COLLATERAL, BY COUNTRY GROUP

	Amount before specific loan loss allowances		Specific loan loss allowances		Amount after specific loan loss allowances		Collateral	
€ million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Germany	2,554	2,698	1,183	1,298	1,371	1,400	1,022	969
Other industrialized countries	918	934	239	258	679	676	352	324
Advanced economies	341	401	94	119	247	282	166	180
Emerging markets	417	631	91	233	326	398	308	332
Supranational institutions	–	–	–	–	–	–	–	–
Total	**4,230**	**4,663**	**1,607**	**1,908**	**2,623**	**2,755**	**1,847**	**1,805**

At **DZ BANK**, the impaired lending volume fell from €974 million as at December 31, 2014 to €795 million as at December 31, 2015. This decrease was almost entirely the result of a fall in the volume of impaired loans to corporates.

8.7.2. Volume of non-performing loans

Because the volume of non-performing loans reported for the **Bank sector** dropped from €5.9 billion to €5.2 billion during 2015, while the total lending volume decreased from €303.7 billion to €302.3 billion, the NPL ratio had gone down to 1.7 percent at the end of 2015 (December 31, 2014: 1.9 percent).

At **DZ BANK,** there was also a fall in the volume of impaired loans, which declined from €2.6 billion as at December 31, 2014 to €1.9 billion as at the 2015 balance sheet date. As a result of this decrease, and because the total lending volume had dropped from €160.6 billion to €158.0 billion, there was also a year-on-year fall in the NPL ratio, which stood at 1.2 percent (December 31, 2014: 1.6 percent).

Figure 34 shows key figures relating to the volume of non-performing loans.

FIG. 34 – BANK SECTOR: KEY FIGURES FOR THE VOLUME OF NON-PERFORMING LOANS

	Bank sector		DZ BANK	
€ billion	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Total lending volume	302.3	303.7	158.0	160.6
Volume of non-performing loans	5.2	5.9	1.9	2.6
Balance of allowances for losses on loans and advances	2.4	2.4	1.2	1.1
Loan loss allowance ratio	0.8%	0.8%	0.7%	0.7%
Risk cover ratio	47.1%	40.7%	60.2%	41.3%
NPL ratio	1.7%	1.9%	1.2%	1.6%

8.8. ALLOWANCES FOR LOSSES ON LOANS AND ADVANCES

8.8.1. Allowances for losses on loans and advances in the total portfolio

Figures 35 and 36 show the change in the volume of allowances (specific loan loss allowances, including the specific loan loss allowances evaluated on a group basis, and portfolio loan loss allowances), the provisions for loan commitments, and liabilities under financial guarantee contracts in 2015 and 2014 for the entire credit portfolio of the Bank sector and DZ BANK.

These items are disclosed for the Bank sector in the notes to the consolidated financial statements as follows:

- Loan loss allowances: note 52 (allowances for losses on loans and advances)
- Provisions for loan commitments: note 67 (provisions)
- Liabilities under financial guarantee contracts: note 69 (other liabilities).

Over the course of 2015, there was a decline in the **volume of specific loan loss allowances,** which fell by €301 million in the **Bank sector** and by €133 million at **DZ BANK**, following decreases of €102 million (Bank sector) and €48 million (DZ BANK) in 2014.

In the **Bank sector**, including **DZ BANK**, the specific loan loss allowances recognized – particularly in corporate banking – were more than offset by higher levels of reversals resulting from the continued success of efforts to aid the recovery of non-performing loans. Utilization of specific loan loss allowances also helped to reduce them. Overall, the change in specific loan loss allowances – which also benefited from stable economic conditions – reflects the stability of the credit portfolio and the sustainable risk policy adopted by the entities in the Bank sector, including DZ BANK.

A reduction in **portfolio loan loss allowances** was also reported in 2015. The decrease in the **Bank sector** was €14 million (December 31, 2014: fall of €50 million) and was largely attributable to DG HYP. At **DZ BANK**, portfolio loan loss allowances were down by €10 million (December 31, 2014: fall of €42 million).

FIG. 35 – BANK SECTOR: ALLOWANCES FOR LOSSES ON LOANS AND ADVANCES IN THE TOTAL PORTFOLIO

	Specific loan loss allowances[1]		Portfolio loan loss allowances		Total loan loss allowances		Provisions for loan commitments and liabilities under financial guarantee contracts	
€ million	2015	2014	2015	2014	2015	2014	2015	2014
Balance as at Jan. 1	1.908	2.010	480	530	2.388	2.540	167	146
Additions	666	791	95	170	761	961	48	51
Utilizations	-377	-372	–	–	-377	-372	–	–
Reversals	-437	-524	-113	-217	-550	-741	-69	-39
Interest income	-45	-33	–	–	-45	-33	2	2
Other changes	-108	36	4	-3	-104	33	–	7
Balance as at Dec. 31	1.607	1.908	466	480	2.073	2.388	148	167
Directly recognized impairment losses	68	82	–	–	68	82		
Receipts from loans and advances previously impaired	-121	-138	–	–	-121	-138		

1 Including specific loan loss allowances evaluated on a group basis.

FIG. 36 – BANK SECTOR: ALLOWANCES FOR LOSSES ON LOANS AND ADVANCES IN DZ BANK'S TOTAL PORTFOLIO

	Specific loan loss allowances		Portfolio loan loss allowances		Total loan loss allowances		Provisions for loan commitments and liabilities under financial guarantee contracts	
€ million	2015	2014	2015	2014	2015	2014	2015	2014
Balance as at Jan. 1	958	1.006	129	171	1.087	1.177	157	143
Additions	303	428	4	2	307	430	46	45
Utilizations	-182	-152	–	–	-182	-152	–	–
Reversals	-261	-320	-14	-44	-275	-364	-68	-38
Interest income	-15	-20	–	–	-15	-20	2	2
Other changes	22	16	–	–	22	16	1	5
Balance as at Dec. 31	825	958	119	129	944	1.087	138	157
Directly recognized impairment losses	4	1	–	–	4	1		
Receipts from loans and advances previously impaired	-71	-99	–	–	-71	-99		

The volume of **provisions for loan commitments and liabilities under financial guarantee contracts** also decreased in 2015, both in the **Bank sector** (fall of €19 million; December 31, 2014: rise of €21 million) and at **DZ BANK** (fall of €19 million; December 31, 2014: rise of €14 million).

8.8.2. Allowances for losses on loans and advances in portfolios with increased risk content

The small increase in specific loan loss allowances recognized in 2015 for the Bank sector's exposure to **eurozone periphery countries** was largely attributable to DVB's exposure. The loans and advances in question were almost fully collateralized. DG HYP made the largest contribution to the net reversal of portfolio loan loss allowances.

The slight net reduction in the portfolio loan loss allowances for the **other global crisis portfolios** (Russia) largely related to DZ BANK.

Within the Bank sector's **shipping finance portfolios**, the specific loan loss allowances for DZ BANK's exposures were reduced in the reporting year. The small rise in portfolio loan loss allowances related to DVB and was essentially due to changes in the US dollar exchange rate.

Changes in the individual components of the allowances for losses on loans and advances for portfolios with increased risk content for 2015 and 2014 are shown in figure 37 (Bank sector) and in figure 38 (DZ BANK).

FIG. 37 – BANK SECTOR: ALLOWANCES FOR LOSSES ON LOANS AND ADVANCES FOR PORTFOLIOS WITH INCREASED RISK CONTENT

	Specific loan loss allowances[1]		Portfolio loan loss allowances		Total loan loss allowances		Provisions for loan commitments and liabilities under financial guarantee contracts	
€ million	**2015**	2014	**2015**	2014	**2015**	2014	**2015**	2014
Eurozone periphery countries								
Balance as at Jan. 1	36	31	22	38	58	69	1	1
Balance as at Dec. 31	45	36	15	22	60	58	–	1
Russia								
Balance as at Jan. 1	–	–	6	2	6	2	–	–
Balance as at Dec. 31	–	–	6	6	6	6	1	–
Shipping finance								
Balance as at Jan. 1	349	280	39	63	388	343	4	4
Balance as at Dec. 31	327	349	43	39	369	388	2	4

1 Including specific loan loss allowances evaluated on a group basis.

FIG. 38 – BANK SECTOR: ALLOWANCES FOR LOSSES ON LOANS AND ADVANCES FOR PORTFOLIOS WITH INCREASED RISK CONTENT, DZ BANK

	Specific loan loss allowances		Portfolio loan loss allowances		Total loan loss allowances		Provisions for loan commitments and liabilities under financial guarantee contracts	
€ million	**2015**	2014	**2015**	2014	**2015**	2014	**2015**	2014
Eurozone periphery countries								
Balance as at Jan. 1	5	6	2	7	7	13	1	1
Balance as at Dec. 31	5	5	3	2	8	7	–	1
Russia								
Balance as at Jan. 1	–	–	6	2	7	3	–	–
Balance as at Dec. 31	–	–	5	6	5	7	1	–
Shipping finance								
Balance as at Jan. 1	247	178	19	34	266	212	4	4
Balance as at Dec. 31	184	247	20	19	204	266	2	4

FIG. 39 – BANK SECTOR: FACTORS DETERMINING THE CREDIT VALUE-AT-RISK

	Average probability of default				Expected loss (€ million)				Risk capital requirement (€ million)			
	Bank sector		DZ BANK		Bank sector		DZ BANK		Bank sector		DZ BANK	
	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Traditional credit risk	0.7%	0.7%	0.2%	0.2%	409	401	104	98	2,091	1,587	811	521
Issuer risk	0.3%	0.4%	0.2%	0.3%	78	99	32	39	1,183	1,228	238	247
Replacement risk	0.1%	0.1%	0.1%	0.1%	10	10	9	8	295	242	200	164
Total					**497**	510	**145**	144	**3,569**	3,056	**1,249**	932
Average	**0.6%**	0.5%	**0.2%**	0.2%								

8.9. RISK POSITION

The amount of capital required to cover credit risk is based on a number of factors, including the size of single-borrower exposures, individual ratings, and the industry sector of each exposure.

As at December 31, 2015, the **Bank sector's** risk capital requirement amounted to €3,569 million (December 31, 2014: €3,056 million), with an upper loss limit of €4,860 million (December 31, 2014: €3,942 million).

The increase in the risk capital requirement was mainly due to improved portfolio modeling at DZ BANK, DG HYP (in both cases the inclusion of concentrations of country risk), and DVB (inclusion of recovery risk). Corresponding capital buffer items were released.

As at December 31, 2015, the risk capital requirement for **DZ BANK** was calculated at €1,249 million (December 31, 2014: €932 million), with an upper loss limit of €1,600 million (December 31, 2014: €1,237 million).

The risk capital requirements for the Bank sector and for DZ BANK were within the applicable upper loss limits at all times during the course of 2015.

Figure 39 shows the credit value-at-risk together with the average probability of default and expected loss.

The risk capital required in the **Bank sector** and at **DZ BANK** for credit portfolios exposed to increased credit risk is shown in figure 40.

The year-on-year decrease of 2 percent in the risk capital requirement for exposures held by entities in the Bank sector to **European periphery countries** was the result of a contraction in the volume lent to these countries. The risk capital requirement in the Bank sector for **shipping finance** stemmed primarily from DVB.

8.10. SUMMARY AND OUTLOOK

In 2015, all internal **rating systems** approved by the banking regulators for solvency reporting were validated. In 2016, DZ BANK is planning to introduce a rating system for insurance companies. Furthermore, exchange-traded futures and options

FIG. 40 – BANK SECTOR: CREDIT VALUE-AT-RISK FOR CREDIT PORTFOLIOS WITH INCREASED RISK CONTENT

	Bank sector		DZ BANK	
€ million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Eurozone periphery countries	725	741	20	58
Russia	2	3	2	2
Shipping finance	266	106	52	21

traded on behalf of customers below the replacement risk limits are now included.

The technical requirements for the gradual introduction of a portfolio-based approach to the measurement of replacement risk were put in place for the bulk of the derivatives portfolio in 2015. The concept underlying this measurement process is to be further developed in 2016.

DZ BANK intends to initiate further measures in 2016 as part of its continuous optimization of the internal **credit risk measurement** system.

In 2016, the entities in the Bank sector will continue to apply their existing **risk-strategy approach** to lending. At DZ BANK, this will involve further stepping up structured business with the cooperative financial network and selected customers. The Bank sector also plans to significantly increase its market share in SME business and strengthen its positioning in this segment in Germany, especially in the medium-sized company subsegment.

Given the predictions for economic growth, the Bank sector and DZ BANK are both likely to make additions to **specific loan loss allowances** in 2016, but within the expected level of allowances for losses on loans and advances.

9. EQUITY INVESTMENT RISK

9.1. DEFINITION AND CAUSES

Equity investment risk is the risk of losses arising from negative changes in the fair value of the portion of the long-term equity investments portfolio for which the risks are not included in other types of risk.

In the Bank sector, equity investment risk arises primarily at DZ BANK, BSH, and DVB.

The long-term equity investments in the banking book are held largely for strategic reasons and normally cover markets, market segments, or parts of the value chain in which the entities of the Bank sector themselves or the cooperative banks are not active. These investments therefore support the sales activities of the cooperative banks or help reduce costs by bundling functions. The investment strategy is continuously aligned with the needs of cooperative financial network policy.

9.2. RISK STRATEGY AND RESPONSIBILITY

Risk strategy requirements must be observed in the management of long-term equity investments. Such management is subject to the principle that equity investment risk (measured as risk capital requirement) may be taken on only if this risk is considered together with the associated opportunities and only if the risk remains below the existing upper loss limits.

Decisions on whether to acquire or dispose of **long-term equity investments** are made by the Board of Managing Directors of the entities in the Bank sector in consultation with the relevant committees.

At DZ BANK, the Group Strategy & Controlling division is responsible for **supporting these investments**, whereas at BSH the task falls within the scope of the International Markets division and the Controlling and Investment Management division. At DVB, the investments are the responsibility of the Accounting and Legal Affairs departments.

The **monitoring and measurement** of equity investment risk is the responsibility of the relevant planning and control units, which must then submit quarterly reports on the results of their activities to the Supervisory Board, the Board of Managing Directors, and the division responsible for supporting the investments.

9.3. RISK MANAGEMENT

Goodwill relating to long-term equity investments is regularly tested for possible impairment in the last quarter of the financial year. If there are any indications during the course of the year of possible impairment, more frequent impairment tests are also carried out. In an impairment test, the carrying amount of the units to which the goodwill relates is compared with the market price that could be achieved at this point.

The **risk capital requirement** for equity investment risk is measured as value-at-risk with a holding period of 1 year on the basis of a variance-covariance approach. Risk drivers are the market values of the long-term equity investments, the volatility of the market values, and the correlations between the market values, with market price fluctuations mainly derived from reference prices listed on an exchange.

The measurement of equity investment risk takes into account both the equity-accounted investments and fully consolidated investees. As part of acquisition accounting and during the course of preparing the consolidated financial statements, the investment carrying amounts for consolidated subsidiaries are offset against the relevant share of net assets. Consequently, the investment carrying amounts disclosed in the notes to the consolidated financial statements are considerably lower than the carrying amounts used for determining risk.

9.4. RISK FACTORS AND RISK POSITION

If a future impairment test determines that the goodwill of long-term equity investments reported on the balance sheet is significantly **impaired**, this could have an adverse impact on the financial performance and financial position of the DZ BANK Group.

In the case of **non-controlling interests**, there is a risk that key information may not be available or cannot be obtained promptly by virtue of the fact that the investment is a minority stake; this would lead to an increase in the impairment risk.

The **carrying amounts of long-term equity investments** in the **Bank sector** relevant for the measurement of equity investment risk amounted to €3,235 million as at December 31, 2015 (December 31, 2014: €3,270 million). As at December 31, 2015, the carrying amounts of the long-term equity investments of **DZ BANK** totaled €1,544 million (December 31, 2014: €1,408 million).

As at the reporting date, the **economic capital requirement** for equity investment risk in the **Bank sector** was measured at €854 million, which was higher than the corresponding figure at the end of 2014 of €788 million. The upper loss limit was €1,081 million (December 31, 2014: €974 million). As at December 31, 2015, the economic capital requirement for equity investment risk at **DZ BANK** amounted to €439 million (December 31, 2014: €379 million). This increase was due, above all, to the higher carrying amounts of long-term equity investments following measurement at fair value. The upper loss limit at December 31, 2015 was €440 million (December 31, 2014: €490 million). The upper loss limits for the entities in the Bank sector, including DZ BANK, were not exceeded at any time during 2015.

10. MARKET RISK

10.1. DEFINITION AND CAUSES

Market risk in the Bank sector comprises market risk in the narrow sense of the term, and market liquidity risk.

Market risk in the narrow sense of the term – referred to below as market risk – is the risk of losses on financial instruments or other assets arising from changes in market prices or in the parameters that influence prices. Depending on the underlying influences, market risk can be broken down for the most part into interest-rate risk, spread risk including migration risk, equity risk, fund price risk, currency risk, commodity risk, and asset-management risk. These risks are caused by changes in the yield curve, credit spreads, exchange rates, share prices, and commodity prices.

Market risks arise in particular from DZ BANK's customer-account trading activities, DZ BANK's cash-pooling function for the cooperative financial network, and from the lending business, real-estate finance business, building society operations, investments, and issuing activities of the various management units. Spread risk, including migration risk, is the most significant type of market risk for the Bank sector. Unless explicitly stated otherwise below, the term 'spread risk' always includes migration risk in this report.

Market liquidity risk is the risk of loss arising from adverse changes in market liquidity, for example as a result of a reduction in market depth or of market disruption. The consequences are that assets can only be liquidated in markets if they are discounted and that it is only possible to carry out active risk management on a limited basis. Market liquidity risk arises primarily in connection with securities already held in the portfolio as well as funding and money market business.

10.2. RISK STRATEGY

The following principles for managing market risk apply to DZ BANK and its subsidiaries in the Bank sector:

– Market risk is only taken on to the extent that it is necessary to facilitate attainment of business policy objectives.
– The assumption of market risk is only permitted within the existing limits and only provided that it is considered together with the associated opportunities.
– Statutory restrictions or provisions in the Articles of Association that prohibit the assumption of certain types of market risk for individual management units are observed.

For regulatory purposes, **DZ BANK** is classed as a trading book institution. It conducts trading activities as part of its role as a central institution in the cooperative financial network and – on this basis – as a corporate bank for customers outside the cooperative financial network. As part of a range of services for the cooperative banks and the cooperative financial network, DZ BANK provides investment and risk management products, platforms, research, and expertise, and acts as an intermediary transforming small deposits into larger-scale lending. DZ BANK also provides facilities ensuring risk transfer from the cooperative financial network and cash pooling within the cooperative financial network. DZ BANK's trading strategy is aimed at generating profits primarily from customer margins and structuring margins.

Unmatched market-risk positions, primarily involving spread risk, arise in connection with customer business and from holding securities portfolios for trading on behalf of customers. To support its liquidity management function as a central institution and corporate bank for the Bank sector, DZ BANK also maintains liquidity portfolios in which it holds – within the relevant limits – bonds eligible for central bank borrowing. DZ BANK manages market risk in its lending business and own issues and also incurs market risk from holding issues from the primary banks and subsidiaries.

As an institution with a banking book for regulatory purposes, **BSH** is exposed to market risks, primarily in the form of interest-rate risk, spread risk, and migration risk. In the case of interest-rate risk, the risk arising from collective business is particularly significant because the business guarantees customers fixed interest rates on both their credit balances and on loans to be drawn down in the future. Risk quantification models designed specifically for the building society business take account of this transaction structure. BSH enters into capital-market transactions in order to manage interest-rate risk from the collective business and to invest surplus home savings deposits. This primarily involves purchasing securities. BSH does not conduct any own-account trading with a view to exploiting short-term pricing fluctuations. Spread risk arises on its securities portfolio.

For regulatory purposes, **DG HYP** is also classed as an institution with a banking book. DG HYP's business model means that the risks relevant to its management of market risk are interest-rate risk, spread risk, and currency risk. Currency risk only represents a low risk in this case, as it is usually largely eliminated. Spread risk is monitored as part of the internal reporting system. As DG HYP is classed as a non-trading book institution, it does not engage in own-account trading in the sense of exploiting short-term fluctuations in interest rates and prices.

For regulatory purposes, **DVB** has the characteristics of a trading book institution, although its trading positions are minimal. Given its business model, it is particularly exposed to interest-rate risk and currency risk, as well as a small degree of equity risk. These forms of market risk primarily arise from customer business and funding activities. DVB is also exposed to a low level of spread risk that mainly results from holding securities for the purpose of liquidity management. DVB does not trade on its own account to generate profits from temporary fluctuations in prices and exchange rates. A small amount of fund price risk also arises on pension obligations (defined benefit obligations) to employees.

Both **UMH** itself and its subsidiaries invest their own resources in purchasing Union Investment mutual funds. UMH and its subsidiaries also acquire units in newly launched Union Investment funds in order to provide initial funding for the funds, but not with the intention of generating short-term trading profits. Fund price risk is not broken down into other subtypes of market risk for management purposes.

UMH is also exposed to asset-management risk. This risk arises from its obligation to pay additional capital for guarantee products. Any shortfall in a contractually agreed minimum capital value on a maturity date triggers a payment obligation on the part of the fund provider, giving rise to these obligations to pay additional capital.

In addition, pledged employee investments are invested in Union Investment funds in order to cover pension entitlements.

UMH and its foreign subsidiaries are also exposed to currency risk on a small scale. This mainly results from exposures for processing payments and for ensuring liquidity.

10.3. ORGANIZATION, RESPONSIBILITY, AND RISK REPORTING

10.3.1. Organization and responsibility

As a trading book institution, **DZ BANK** generally manages market risk on a decentralized, portfolio basis. The traders responsible for managing a portfolio bear responsibility for its risk and performance.

Market risk arising at **BSH** is managed at overall bank level and exclusively as part of the banking book.

Market risk arising at **DG HYP**, **DVB**, and **UMH** is managed centrally by specialist committees at each institution. The committees provide guidance for treasury activities based on market risk reporting. Committee decisions are implemented operationally by the portfolio managers and treasury departments at each entity.

10.3.2. Risk reporting

Key figures for market risk are submitted at **sector level** to the Group Risk and Finance Committee within the overall risk report for the DZ BANK Group. DZ BANK is informed of any limit overruns at management unit level by means of an ad-hoc reporting system.

As part of management reporting at **DZ BANK**, **BSH**, **DG HYP**, and **DVB**, Risk Controlling provides the portfolio managers and the senior managers responsible for risk management and risk control with daily, weekly, or monthly market risk updates. Twice a month, **UMH** calculates the risk attaching to its own-account investing activities and reports this risk to its Board of Managing Directors and the committee responsible for managing own-account investing.

10.4. RISK MANAGEMENT

10.4.1. Measurement of market risk

MEASUREMENT OF MARKET RISK IN THE NARROW SENSE

DZ BANK, BSH, DG HYP, DVB, and UMH determine market risk from the short-term (operating) perspective using the **value-at-risk** method.

Value-at-risk is a key performance indicator that describes the maximum expected loss for a given probability (confidence level) and within a specified holding period for the positions under normal market conditions. The model does not reflect the maximum potential loss that could be incurred in extreme market situations, but is based on observed historical market scenarios over periods of 250 trading days (DZ BANK, DG HYP), 1,500 trading days (BSH), 256 trading days (DVB), and 1 year (own-account investments of UMH).

DZ BANK, **BSH**, **DVB** and, since February 2015, **DG HYP** generate market scenarios using a **historical simulation**. Respective holding periods of 1 day and 10 days are used.

UMH uses **Monte Carlo simulation** to determine the market risk arising from its own-account investing. This measurement method provides a 'look through' to the individual securities in the funds and it is also used when quantifying the asset-management risk for most product types. The measurement of risk in each case is based on a unilateral confidence level of 99.9 percent and a holding period of 1 year.

For **DZ BANK**, **BSH**, **DG HYP**, and **DVB**, calculations are carried out to determine an overall value-at-risk and – where relevant – separate values-at-risk for interest-rate risk, spread risk, equity risk, currency risk, and commodity risk, broken down into trading portfolios and non-trading portfolios. The risk in the banking book is included in the value-at-risk for both the trading and non-trading portfolios. An overall value-at-risk is calculated for the own-account investing activities carried out by **UMH**. A risk model for the whole sector that takes into account concentration and diversification effects is used to calculate the values-at risk for the entities in the Bank sector. In this case, the risk applicable to the entities that are included is calculated centrally by DZ BANK.

To quantify market risk from a longer-term (strategic) perspective, the credit institutions in the Bank sector regularly calculate the **capital requirement for market risk** and compare it with the associated upper loss limit.

The risk measurements from both the operating and strategic perspectives for the credit institutions in the Bank sector are linked to each other by a consistent **system of limits**, whereas the market risk incurred by UMH is managed directly at the level of its risk capital requirement. Consequently, it does not require a limit system for linking the operating and strategic perspectives.

MEASUREMENT OF MARKET LIQUIDITY RISK

DZ BANK and **DG HYP** measure market liquidity risk using a special stress scenario for determining the risk capital requirement for market risk. The economic capital requirement necessary in this stress scenario is compared against the available cover assets in order to obtain an indication of capital adequacy during periods of adverse trends in market liquidity.

At **BSH**, market liquidity risk largely arises from investing surplus home savings deposits in securities. BSH uses stress tests to incorporate the resulting risk in liquidity risk. The risk is then mitigated by focusing on highly liquid investments.

Market liquidity risk at **DVB** largely arises from the securities held in its liquidity portfolio, although investments are restricted to highly liquid securities. These securities exposures are implicitly included in the stress scenarios for liquidity risk.

Market liquidity risk may arise at **UMH** due to its own-account investing activities. However, this risk is only relevant in extreme market situations because it focuses on investing in its own, open-ended mutual funds.

10.4.2. Backtesting and stress tests

The internal market risk models of the entities in the Bank sector are subjected to **backtesting**, the purpose of which is to check the predictive quality of the value-at-risk approaches used to measure the risk. Changes in the value of portfolios on each trading day are usually compared against the value-at-risk calculated using risk modeling.

Risks arising from extreme market situations are primarily recorded using **stress tests**. The crisis scenarios underlying the stress tests include the simulation of significant fluctuations in risk factors and serve to highlight potential losses not generally recognized in the value-at-risk approach. Stress tests are based on extreme market fluctuations that have actually occurred in the past together with crisis scenarios that – regardless of market data history – are considered to be economically relevant. The crisis scenarios used in this case are regularly reviewed to ensure they are appropriate. In these stress tests, the following are deemed to be material risk factors: interest-rate risk, spread risk, migration risk, equity risk, currency risk, and commodity risk.

10.4.3. Management of limits for market risk

Market risk is managed at **DZ BANK**, **BSH**, and **DG HYP** using a limit system appropriate to the portfolio structure. This system limits the risks assumed in parts of the group as well as any losses arising during the course of the year.

Within the trading divisions of **DZ BANK** and the treasury at **DG HYP**, the management of risk based on value-at-risk is supported by a limit system structured around sensitivities and scenarios, and by stress test limits. At DG HYP, the treasury's system of limits is based on value-at-risk and sensitivities.

The limit system used at both **DVB** and **UMH** is based on the value-at-risk or risk capital required at the highest portfolio level.

10.4.4. Mitigating market risk

MARKET RISK HEDGING

As part of the decentralized management of portfolios, market risk at DZ BANK is hedged by portfolio managers. At DG HYP, it is hedged by treasury.

Risks are hedged at **DZ BANK** either through internal transactions with the front-office trading unit responsible for the relevant product or through external exchange-based and OTC transactions. **DG HYP** exclusively uses external exchange-based and OTC transactions to hedge against market risk, although the OTC transactions used for hedging are primarily with counterparties within the Bank sector. At **BSH**, the asset-liability committee decides whether to hedge market risk via OTC transactions.

DVB's treasury uses OTC interest-rate and currency derivatives to hedge market risk.

As soon as action is required to reduce the market risk arising from own-account investing at **UMH**, changes are made to the composition of the fund positions in its own-account investments. For this reason, UMH is only exposed to fund price risk.

HEDGE EFFECTIVENESS

The measurement of market risk at **DZ BANK** is based on the inclusion of the individual positions subject to market risk. There is therefore no need to monitor the economic effectiveness of hedges.

At **DG HYP**, the effectiveness of any hedging is reviewed and reported daily in terms of both risk and performance. The report covers the entire DG HYP book. Derivatives in various forms are used to mitigate market risk. These are predominantly plain vanilla products.

Interest-rate risk incurred by **DVB** is eliminated by the use of interest-rate swaps. Currency risk is hedged by the use of currency swaps and cross-currency swaps with the aim of closing out all currency exposure.

10.4.5. Managing the different types of market risk

MANAGEMENT OF INTEREST-RATE RISK

At **DZ BANK**, interest-rate risk arises from trading in interest-rate-sensitive products on behalf of customers, from structuring its own issues for trading on behalf of customers, and from exposures in connection with liquidity management. The risks arising from trading on behalf of customers are dynamically hedged within the set limits and the risks from liquidity management are generally minimized.

BSH is subject to particular interest-rate risks arising from its collective home savings business since it gives customers a binding interest-rate guarantee both for savings and for the loan element that may be drawn down in the future. BSH uses a simulation model based on the behavior of building society customers to measure interest-rate risk. The model forecasts the volume of collective assets held, taking into consideration planned new business and different customer options.

At **DG HYP**, interest-rate risk largely arises from Pfandbrief cover assets and funding transactions. These risks are mitigated by hedging on a regular basis.

Interest-rate risk at **DVB** largely arises from customer business, the purchase of securities for the liquidity portfolio, and funding transactions. This risk is generally eliminated.

MANAGEMENT OF SPREAD RISK AND MIGRATION RISK

Spread risk and migration risk on all financial instruments subject to credit spread risk have been incorporated into risk capital management since January 1, 2014. An upper loss limit and operational limits together with a process for monitoring them were introduced in order to ensure that the risk capital for these two forms of market risk is managed effectively.

At **DZ BANK**, spread risk arises from holding securities portfolios for trading on behalf of customers, from trading in its own issues on behalf of customers, and from the liquidity management function that the bank carries out for the Bank sector. The risk incurred in connection with trading on behalf of customers is actively managed. In liquidity management, the risk tends to be limited to that which is absolutely necessary to allow DZ BANK to carry out its responsibilities as a central institution and in connection with the liquidity management function.

Spread risk and migration risk arise at **BSH** from investing surplus home savings deposits in securities. The resulting risk is managed as part of a conservative investment policy.

Spread risk at **DG HYP** largely results from holding securities as Pfandbrief cover assets. The risks are included in an active reporting system and are monitored on a daily basis. Migration risk is not covered by this daily monitoring. Since the switch in DG HYP's business model, the entity only takes on new spread risk if it is necessary as part of the management of cover assets.

Spread risk arises at **DVB** from holding securities in its liquidity portfolio.

MANAGEMENT OF EQUITY RISK

Equity risk is only of minor significance at **DZ BANK**. It essentially arises from transactions on behalf of customers involving equities, equity and equity-index derivatives, investment funds and alternative investments, warrants, and investment certificates. It is managed by using equities, exchange-traded futures and options, and OTC derivatives.

Equity risk is primarily incurred by **DVB** in relation to its holding of treasury shares. The risk is not material.

MANAGEMENT OF FUND PRICE RISK

Fund price risk largely arises at **DZ BANK** in connection with business conducted on behalf of customers. Market risk attaching to fund positions also arises in connection with covering defined benefit obligations. The risk is actively managed within existing limits.

UMH is exposed to fund price risk because it invests its own resources in funds and also invests pledged employee investments in order to cover pension entitlements. While market risk arising from the funds it holds is measured by 'looking through' to individual-security level, the risk incurred by own-account investing is measured at fund level. For this reason, UMH is only exposed to fund price risk. The management of fund price risk focuses on the liquidity requirements of UMH's subsidiaries and the need to acquire fund units when providing initial funding for investment funds. The requirements for a conservative investment policy are also observed.

MANAGEMENT OF CURRENCY RISK

Only a small amount of currency risk arises at **DZ BANK**, primarily in connection with interest-rate products denominated in foreign currency and in connection with customer business involving currency products and derivatives. Currency risk is eliminated for the most part. Generally speaking, DZ BANK does not hold any significant open currency positions.

At **BSH**, currency risk arises mainly as a result of capital transfers between BSH and subsidiaries in non-eurozone countries. This risk is generally eliminated by hedging.

The currency risk resulting from customer business at **DG HYP** is not material and is normally eliminated in full.

Currency risk is largely incurred by **DVB** as a result of currency transactions on behalf of customers and funding transactions in foreign currencies. This risk is generally eliminated.

MANAGEMENT OF COMMODITY RISK

DZ BANK is exposed to a low level of commodity risk arising from customer business involving commodity derivatives. The exposure is hedged for the most part or passed on directly and in full to external counterparties in back-to-back transactions.

MANAGEMENT OF ASSET-MANAGEMENT RISK

Asset-management risk arises from minimum payment commitments given by **UMH** and/or its subsidiaries for guarantee products. The risks arising from these guarantee products are managed conservatively.

The launch of new guarantee products is governed by the guidelines for medium-term planning that apply to UMH and takes into account the risk capital required and the available internal capital. Before new products are launched, the risks associated with them are analyzed and assessed. Management mechanisms embedded in the products aim to prevent the value of an individual product from falling below its guaranteed level during its lifetime.

Asset-management risk is reported separately and is monitored regularly at individual product level by UMH.

10.5. RISK FACTORS

GENERAL LEVEL OF INTEREST RATES

In January 2015, the Swiss National Bank abandoned the exchange rate control between the Swiss franc and the euro, causing interest rates to plummet. **DZ BANK** therefore implemented the measures that it had prepared in the previous year to adapt the internal market risk model to cope with a market environment of widespread negative interest rates.

CREDIT SPREADS

The credit spreads for bank bonds and corporate bonds widened over the course of 2015. Spreads on corporate bonds in particular were much higher. There were also one-off effects relating to individual issuers, e.g. Volkswagen AG. The yield differential increased significantly between corporate bonds and government bonds on the one hand and corporate bonds and bank bonds on the other.

A further widening of credit spreads on bank and corporate bonds or other investments, particularly government bonds, would lead to a drop in fair values. Present value losses of this nature could have a temporary or permanent adverse impact on the profits generated by the entities in the Bank sector.

MARKET LIQUIDITY

A market-wide liquidity squeeze could be detrimental to the business activities of the DZ BANK Group and therefore also to its financial position and financial performance. Tighter market liquidity arises particularly in stressed market conditions, for example during the financial crisis.

10.6. RISK POSITION

10.6.1. Risk capital requirement

As at December 31, 2015, the economic capital requirement for market risk used to determine the risk-bearing capacity of the **Bank sector** amounted to €3,204 million (December 31, 2014: €2,769 million) with an upper loss limit of €5,830 million (December 31, 2014: €6,422 million). This growth in the risk capital requirement was largely due to exposures being transferred from the capital buffer to the regular market risk calculation. It related to spread and migration risk (measured centrally) and to market risk at DG HYP.

The Bank sector's economic capital requirement includes **asset-management risk**. The asset-management risk for guarantee funds was measured at €60 million as at December 31, 2015 (December 31, 2014: €42 million). The increase was attributable to an adjustment of the calculation method (with a corresponding decrease in the capital buffer). The asset-management risk for UniProfiRente as at the reporting date amounted to €30 million (December 31, 2014: €33 million).

As at December 31, 2015, **DZ BANK's** economic capital requirement for market risk amounted to €752 million (December 31, 2014: €750 million) with an upper loss limit of €300 million (December 31, 2014: €1,337 million). DZ BANK is not exposed to any asset-management risk.

Throughout the year under review, the economic capital requirements remained below the upper loss limits at the levels of both the Bank sector and DZ BANK.

10.6.2. Value-at-risk

Value-at-risk is used for short-term risk management in the Bank sector. Figure 41 shows changes in value-at-risk in 2015. The figures are broken down by trading portfolio, non-trading portfolio, and type of market risk.

Figure 42 also shows the daily changes in risk and the results of daily backtesting of trading portfolios.

As the Bank sector's trading portfolios consist exclusively of the trading portfolios of DZ BANK, the figures for the Bank sector are the same as those for DZ BANK.

The value-at-risk for the **trading portfolios** as at December 31, 2015 was €27 million (December 31, 2014: €21 million). The level of risk was largely stable during 2015.

In the year under review, changes in fair value exceeded the forecast risk value on 8 trading days. In each case, this was due to a sharp widening of credit spreads, particularly those on government issues, covered issues, and corporate bonds.

As at December 31, 2015, the value-at-risk for the **Bank sector's non-trading portfolios** was calculated at €75 million (December 31, 2014: €68 million). At **DZ BANK** level, this figure was €13 million as at December 31, 2015 (December 31, 2014: €3 million). The increase in equity risk at the level of the overall portfolio resulted, above all, from heightened risk attaching to assets that are held in order to cover the defined benefit obligation. These are investment fund units that are exposed to equity risk. The increase in spread risk is mainly the consequence of the rise in the volatility of the modeled credit spreads over the course of 2015.

10.7. SUMMARY AND OUTLOOK

In 2015, DZ BANK continued to integrate the measurement and management of market risk in the management units of the Bank sector. This included the further alignment of calculation methods along with harmonization of risk management processes.

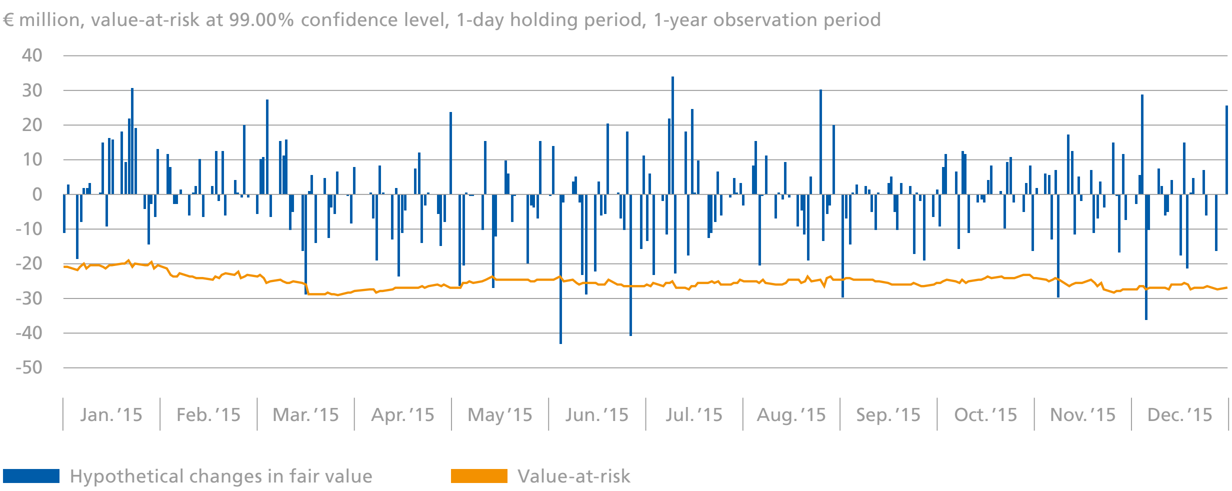
In 2016, interest-rate risk on the existing defined benefit obligation is to be transferred out of the capital buffer and included in the measurement of market risk. This is likely to cause the risk capital requirement to increase. As in previous years, the focus of DZ BANK's trading business will be on customer business in 2016.

FIG. 41 – BANK SECTOR: VALUE-AT-RISK FOR MARKET RISK IN THE TRADING AND NON-TRADING PORTFOLIOS[1 2]

€ million	Interest-rate risk		Spread risk		Equity risk[3]		Currency risk		Commodity risk		Diversification effect[4]		Total	
	Bank sector	DZ BANK	Bank sector	DZ BANK	Bank sector	DZ BANK	Bank sector	DZ BANK	Bank sector	DZ BANK	Bank sector	DZ BANK	Bank sector	DZ BANK
Aggregate risk[5]														
Dec. 31, 2015	12	6	99	28	14	9	1	4	–	–	-22	-18	**105**	**29**
Dec. 31, 2014	16	3	78	24	5	3	1	1	–	–	-10	-9	91	22
Trading portfolios														
Dec. 31, 2015	4	4	26	26	1	1	2	2	–	–	-7	-7	**27**	**27**
Average	4	4	27	27	–	–	1	1	–	–	-8	-8	25	25
Maximum	5	5	29	29	1	1	2	2	–	–	-5	-5	28	28
Minimum	3	3	24	24	–	–	–	–	–	–	-12	-12	20	20
Dec. 31, 2014	3	3	24	24	–	–	–	–	–	–	-7	-7	21	21
Non-trading portfolios														
Dec. 31, 2015	11	3	68	3	14	9	1	2	–	–	-20	-4	**75**	**13**
Average	20	2	64	1	10	7	2	1	–	–	-16	-2	80	9
Maximum	30	3	71	3	14	10	4	2	–	–	-3	-1	88	14
Minimum	8	1	53	1	4	3	1	1	–	–	-35	-4	68	3
Dec. 31, 2014	17	1	53	2	5	3	2	1	1	–	-8	-3	68	3

1 Value-at-risk with 99.00% confidence level, 1-day holding period, 1-year observation period, based on a central market risk model for the DZ BANK Group. Concentrations and effects of diversification were taken fully into account when calculating the risks.
2 The minimum and maximum amounts for the different subcategories of market risk may stem from different points in time during the reporting period. Consequently, they cannot be aggregated with the diversification effect to produce the minimum or maximum aggregate risk.
3 Including funds.
4 Total effects of diversification between the types of market risk for all consolidated management units.
5 Owing to the effects of diversification between trading portfolios and non-trading portfolios, the mathematical total of the risks for these two parts of the overall portfolio are different from the figure for aggregate risk.

FIG. 42 – BANK SECTOR: VALUE-AT-RISK FOR MARKET RISK AND HYPOTHETICAL CHANGES IN FAIR VALUE IN TRADING PORTFOLIOS



11. TECHNICAL RISK OF A HOME SAVINGS AND LOAN COMPANY

11.1. DEFINITION AND CAUSES

Technical risk of a home savings and loan company is subdivided into two components: new business risk and collective risk. **New business risk** is the risk of a negative impact from possible variances compared with the planned new business volume.

Collective risk refers to the risk of a negative impact that could arise from variances between the actual and forecast performance of the collective building society operations caused by significant long-term changes in customer behavior unrelated to changes in interest rates. It can be distinguished from interest-rate risk by incorporating a change in customer behavior unrelated to interest rates in the collective simulation. Conversely, only changes in customer behavior induced by changes in interest rates are relevant to interest-rate risk.

Technical risk of a home savings and loan company arises in the Bank sector in connection with the business activities of BSH. This risk represents the entity-specific business risk of BSH. A home savings arrangement is a system in which the customer accumulates savings earmarked for a specific purpose. The customer enters into a home savings contract with fixed credit balance and loan interest rates so that at a later point – following a savings phase (around 6 to 10 years in a standard savings arrangement) – he/she can be granted a low-interest home savings loan (with a maturity of 6 to 14 years) when payout is approved. A home savings agreement is therefore a combined asset/liability product with a very long maturity.

11.2. RISK STRATEGY AND RESPONSIBILITY

Technical risk of a home savings and loan company is closely linked with the BSH business model and cannot therefore be avoided. Against this backdrop, the **risk strategy** aims to prevent an uncontrolled increase in risk. The risk is managed in particular through a forward-looking policy for products and scales of rates and charges, and through appropriate marketing activities and sales management.

BSH is **responsible** for managing the technical risk of a home savings and loan company within the Bank sector. This includes measuring the risk and communicating risk information to the risk management committees at BSH and to the Board of Managing Directors and Supervisory Board of BSH. Technical risk of a home savings and loan company forms an integral part of the DZ BANK Group's risk reporting system.

11.3. RISK MANAGEMENT

A special collective simulation, which includes the effects of a (negative) change in customer behavior and a drop in new business, is used to **measure the technical risk of a home savings and loan company**. The results of the collective simulation are fed into an income statement for the period using a long-term forecast of earnings. The variance between the actual earnings in the risk scenario and the necessary earnings to achieve the target is used as a risk measure. The variance is discounted to produce a present value. The total present value of the variances represents the technical risk of a home savings and loan company and therefore the risk capital requirement for this type of risk.

In order to determine the technical risk of a home savings and loan company in a **stress scenario**, the stress parameters, particularly the assumptions about customer behavior, are severely impaired. An appropriate collective simulation is then generated on this basis and is analyzed using the same methodology used for the measurement of current risk. Stress tests are carried out quarterly.

For the present value perspective in the liquidation approach within BSH's **overall bank limit system**, the technical risk of a home savings and loan company is backed by risk capital.

11.4. RISK FACTORS

A variance between the actual and planned new business volume (new business risk) could lead to lower deposits from banks and customers over the short to medium term. Over the medium to long term, the lower level of new business could also lead to a decrease in loans and advances to banks and customers.

Variances between the actual and forecast performance of the collective building society business caused by significant long-term changes in customer behavior unrelated to changes in interest rates (collective risk) could also lead to lower deposits from banks and customers.

Over the medium to long term, there is a risk that a lower level of new business and change in customer behavior could cause net interest income to taper off with an adverse impact on the financial position and financial performance of the DZ BANK Group. There is also a risk that the liquidity position could deteriorate, in particular as a consequence of the drop in deposits from banks and customers.

11.5. RISK POSITION

As at December 31, 2015, the capital requirement for the technical risk of a home savings and loan company amounted to €549 million (December 31, 2014: €496 million) with an upper loss limit of €550 million (December 31, 2014: €500 million). The risk capital requirement did not exceed the applicable upper loss limit at any point during the course of 2015. The slight increase in the technical risk of a home savings and loan company was attributable to a change in general conditions, particularly changes in customer behavior that were not induced by changes in interest rates.

12. BUSINESS RISK

12.1. DEFINITION AND CAUSES

Business risk denotes the risk of losses arising from earnings volatility for a given business strategy and not covered by other types of risk. In particular, this comprises the risk that, as a result of changes in material circumstances (for example, the regulatory environment, economic conditions, product environment, customer behavior, market competitors) corrective action cannot be taken at an operational level to prevent the losses.

DZ BANK's core functions as a central institution, corporate bank, and holding company mean that it focuses closely on the local cooperative banks, which are its customers and owners.

The key entities incurring business risk in the Bank sector in addition to DZ BANK are the management units DVB, DZ PRIVATBANK, and UMH.

12.2. ORGANIZATION AND RISK MANAGEMENT

The management of business risk is a primary responsibility of the **Board of Managing Directors of DZ BANK** and is carried out in consultation with the senior management of the main subsidiaries and the heads of the DZ BANK divisions involved. Group management is integrated into a committee structure, headed by the **Group Coordination Committee**. The Group Strategy & Controlling division supports the Board of Managing Directors as part of its role in supervising the activities of the subsidiaries.

The **Financial Services Advisory Council** increases the involvement of the cooperative banks in the joint development and marketing of the DZ BANK Group's products and services and it works closely with the BVR and its Special Committees. The Financial Services Advisory Council therefore acts as a recommendation committee on product and sales issues arising from the partnership between the cooperative banks and the DZ BANK Group. This approach endeavors to engender a high degree of mutual commitment while at the same time fully maintaining the decentralized structure to the benefit of the cooperative banks.

The management of business risk is closely linked with the **management of opportunities** and the tools used in the strategic planning process. It is based on setting targets for the subsidiaries involved in active management and for the divisions of DZ BANK. **Risk is quantified** using a risk model based on an earnings-at-risk approach.

12.3. RISK FACTORS

COSTS OF REGULATION; REGULATION MANAGEMENT

Over the next few years, the DZ BANK Group is likely to face **increased costs**, and thus reduced profits, in connection with implementing the requirements resulting from the commercial-law and regulatory initiatives currently being planned by legislators (see sections 5.1.1 and 5.1.2).

To identify strategic regulatory initiatives with an impact on the DZ BANK Group and the individual management units, a centralized **regulation management** office has been set up at DZ BANK. This office establishes direct contact with the relevant units at DZ BANK and in the other management units, organizes regular bank-wide and groupwide dialog on identified and new strategic regulatory initiatives, and uses a 'regulatory map' to report to the responsible steering committees, the Board of Managing Directors, and the Supervisory Board of DZ BANK.

PLANNED MERGER OF DZ BANK AND WGZ BANK

The process of integration after the merger of DZ BANK and WGZ BANK may lead to a temporary increase in restructuring expenses. Once everything is up and running after the integration is complete, the joint institution is expected to be able to make full use of cost synergies in connection with structures, processes, and infrastructure and to avoid duplication of capital expenditure.

COMPETITION BASED ON PRICING AND TERMS

One of the features of the German banking sector is the fierce competition, frequently centered on pricing and terms. This can lead to margins that are not attractive from an economic perspective or are inadequate given the risk involved. The earnings situation is under particular pressure in the **retail banking business**. As a consequence of the financial crisis, many competitors are giving greater focus to retail banking as a core business, so this situation could become even tougher in the future.

Corporate banking is also subject to competition that is becoming increasingly international in nature. A number of foreign providers have already expanded their presence in the German market. The intensity of the competition could therefore continue to increase in the future, with the result that it could be difficult to generate attractive margins, fees and commissions in individual segments or subsegments of the market.

In the event of a renewed economic downturn, this trend could become even worse. The resulting increased pressure on prices and lower business volume would notch up the competitive pressure still further. Again, this could give rise to margins that are economically unattractive or that do not adequately cover the risk arising from the corresponding transactions.

CHANGES IN THE MARKET RESULTING FROM ELECTRONIC TRADING PLATFORMS

DZ BANK increasingly offers its customers the option of conducting transactions in selected financial instruments using electronic trading platforms. Depending also on product demand from market players, European regulation relating to the trading and settlement of financial instruments is expected to lead to a transfer of the trading volume in certain products to electronic trading platforms. It is predicted that this will bring about a **change in competitor structure**, with **competition becoming fiercer in the trading of certain financial instruments for customer account**, resulting in the risk of a reduction in margins and revenue going forward.

DIGITIZATION AND DEMOGRAPHIC CHANGE

The prevalence of mobile devices and internet-based services (**digitization**) is encouraging the intermediation of new competitors at the interface between customers and banking services. Banks are often confronted by new, unregulated competitors that frequently originate from the non-banking sector and that only selectively arrange, or actually offer, high-margin products or services for customers, leaving the complex and thus high-risk areas of business to the established banks. Consequently, if traditional financial service providers offering the full range of products and services come under threat in high-margin areas of business from competitors that are subject to little or no regulation, yet are expected to continue offering the other standard products, the earnings prospects of the entities in the DZ BANK Group may deteriorate in their payments processing and card processing businesses.

In the coming years, the banking industry will also face challenges relating to **demographic change** and the resulting alterations in customer behavior, while becoming subject to increased regulation.

The **opportunities** associated with digitization and demographic change are presented in section 4.2.2.

12.4. RISK POSITION

As at December 31, 2015, the economic capital requirement for the business risk incurred by the **Bank sector** amounted to €579 million (December 31, 2014: €361 million). The rise was largely the result of a recalculation based on DZ BANK's updated business forecasts. The upper loss limit was €775 million at the reporting date (December 31, 2014: €436 million).

As at December 31, 2015, the economic capital requirement for **DZ BANK** was calculated at €398 million (December 31, 2014: €271 million). The upper loss limit as at December 31, 2015 was €550 million (December 31, 2014: €300 million). The higher upper loss limit is primarily attributable to an increase in planned costs (mainly the bank levy and project costs). The rise in the risk capital requirement calculated at the end of 2015 was lower than predicted because the actual bank levy incurred was significantly lower than the budgeted figure. The risk capital requirement did not exceed the applicable upper loss limit at any point during the course of 2015.

13. REPUTATIONAL RISK

13.1. DEFINITION AND CAUSES

Reputational risk refers to the risk of losses from events that damage confidence, mainly among customers (including the local cooperative banks), shareholders, the labor market, the general public, and the regulator in the entities in the Bank sector or in the products and services that they offer.

Reputational risk can arise as an independent risk (primary reputational risk) or as an indirect or direct consequence of other types of risk, such as business risk, liquidity risk, and operational risk (secondary reputational risk).

13.2. RISK STRATEGY AND RESPONSIBILITY

Reputational risk is incorporated into the risk strategy by pursuing the following objectives:

- Avoiding loss resulting from reputation-damaging incidents by taking preventive action
- Mitigating reputational risk by taking preventive and responsive action
- Raising awareness of reputational risk within the Bank sector, e.g. by defining the people responsible for risk and establishing a sector-wide reporting system and set of rules for reputational risk.

These objectives are applicable both at the Bank sector level and in the management units. The management units are responsible for complying with the rules and for deciding what suitable preventive and responsive action to take.

Each management unit is responsible for managing its reputational risk and must comply with the requirements laid down in the set of rules for reputational risk.

13.3. RISK MANAGEMENT

Reputational risk is generally taken into account within business risk and is therefore implicitly included in the measurement of risk and risk capital adequacy in the Bank sector. At BSH, reputational risk mainly is measured and the capital requirement determined as part of the technical risk of a home savings and loan company. In addition, the risk that obtaining funding may become more difficult as a consequence of reputational damage is specifically taken into account in liquidity risk management.

Crisis communications aimed at mitigating reputational risk are designed to prevent greater damage to the entities in the Bank sector if a critical event occurs. The management units therefore follow a stakeholder-based approach in which reputational risk is identified and evaluated from a qualitative perspective depending on the stakeholder concerned.

13.4. RISK FACTORS

If the Bank sector as a whole or the individual management units acquire a negative reputation, there is a risk that existing or potential customers will be unsettled with the result that it might not be possible to carry out planned transactions. There is also a risk that it will no longer be possible to guarantee the backing of shareholders and employees necessary to conduct business operations. Ultimately, reputational damage could make it more difficult to obtain funding.

14. OPERATIONAL RISK

14.1. DEFINITION AND CAUSES

DZ BANK defines operational risk as the risk of loss from human behavior, technological failure, weaknesses in process or project management, or external events. This closely resembles the regulatory definition. Legal risk is included in this definition.

The activities of DZ BANK and those of BSH, DG HYP, DVB, DZ PRIVATBANK, TeamBank, and UMH have a particularly significant impact on operational risk for the Bank sector.

14.2. RISK STRATEGY

The Bank sector entities aim to manage operational risk efficiently. The following principles represent areas in which it has taken action, or is planning to take action, to ensure this core objective is achieved:

– Continuous enhancement of **risk awareness**, so that it is reflected in an appropriate risk culture focusing not only on individual areas of responsibility but also on overarching interests; establishment of comprehensive, open communication systems to support these aims
– An open and largely penalty-free **approach to operational risk** promoting a problem-solving culture
– Depending on the materiality of the operational risk identified, **action** to prevent, reduce, or transfer the risk, or alternatively a conscious decision to accept the risk
– **Risk appetite** defined in the form of an upper loss limit and alert thresholds for contributions to operational risk that is continuously adjusted in line with prevailing circumstances
– Individual **methods** for managing operational risk coordinated with each other to provide an accurate, comprehensive picture of the risk situation coherently integrated into the overall management of all risk types
– Mandatory rule for all material **decisions** to take into account the impact on operational risk; this applies in particular to the new product process and to business continuity planning
– **Management** of operational risk on a decentralized basis, but within the strategically defined limits set out in the framework for operational risk.

14.3. ORGANIZATION, RESPONSIBILITY, AND RISK REPORTING

Each management unit is responsible for managing its operational risk. The principle of **decentralized** responsibility applies equally to all the management units, including DZ BANK.

One of the purposes of the **framework for operational risk** is to harmonize organizational structures throughout the sector. The sectorwide coordinated approach to operational risk is also managed by a **committee** assigned to the Group Risk Management working group and comprising representatives from DZ BANK and its main subsidiaries.

The **DZ BANK** unit responsible for controlling operational risk located within the Group Risk Controlling function develops the management and control methods based on regulatory requirements and business needs applicable to the Bank sector. The unit ensures that operational risk is monitored independently and it is responsible for central reporting. Corresponding organizational units are also in place at the other main entities in the **Bank sector**.

In most of the management units in the Bank sector, including **DZ BANK**, specialist divisions with central risk management functions manage operational risk. As part of their overarching responsibility, these specialist divisions in each entity also perform an advisory and guiding function for the matters within their remit, such as IT risk.

Because operational risk can affect all divisions, local operational risk coordinators are located in each division of the main **management units** and they act as interfaces with Central Risk Controlling. This also applies to **DZ BANK**.

Regular **reports** on loss data, risk self-assessments, risk indicators, and risk capital are submitted to the Board of Managing Directors, the Group Risk and Finance Committee, the Risk Committee, and operational management, facilitating effective management of operational risk on a timely basis.

14.4. CENTRAL RISK MANAGEMENT

14.4.1. Measurement of operational risk

Since 2015, the calculation of the risk capital requirement for operational risk in the Bank sector has been based on an economic portfolio model, in which losses are monitored on the basis of the expected loss calculated by the model. The results from the model, combined with the tools used to identify risk, enable the efficient, centralized management of operational risk.

14.4.2. Identifying operational risk

LOSS DATABASE

The groupwide collation of loss data in a central database allows the Bank sector to identify, analyze, and evaluate loss events, highlighting patterns, trends, and concentrations of operational risk. This data-gathering focuses particularly on loss data related to risks that have been incurred, for example in connection with the risk factors specified in section 14.5. The assembled data history also forms the basis for the calculation of economic capital using a portfolio model. Losses are recorded if they are above a threshold value of €1,000.

RISK SELF-ASSESSMENT

In large parts of the Bank sector, senior managers from all management units assess operational risk as part of a scenario-supported risk self-assessment process in order to identify and evaluate all material operational risks and ensure maximum possible transparency regarding the risk position. The main potential risks for all first-level risk categories as defined by the CRR are calculated and described using risk scenarios. The findings are fed into the internal portfolio model for operational risk that is used to calculate any capital buffer requirement. The scenarios also enable risk concentrations to be identified.

RISK INDICATORS

In addition to the loss database and risk self-assessment, risk indicators help the Bank sector to identify risk trends and concentrations at an early stage and detect weaknesses in business processes. A system of warning lights is used to indicate risk situations based on specified threshold values. Risk indicators within the Bank sector are collected systematically and regularly on a wide scale.

14.4.3. Mitigating and avoiding operational risk

Continuous improvement of business processes is one of the methods used with the aim of mitigating operational risk. The transfer of risk by means of insurance or outsourcing as permitted by liability regulations provides further protection.

Operational risk is **avoided**, for example, by rejecting products that can be identified during the new product process as entailing too much risk.

In all relevant management units, comprehensive **contingency plans** covering business-critical processes have been established to ensure the continuation of business in the event of process disruption or system breakdown. These business continuity plans are regularly reviewed and simulated to ensure they are fully functional.

14.5. MANAGEMENT OF SPECIAL RISKS

Risks that affect specific matters or areas are called special risks. Special risks primarily impact operational risk but also affect business risk and reputational risk. This particularly applies to aspects of HR risk, IT risk, outsourcing risk, and tax risk. The scope and level of detail for the risk management system described below varies between the management units because of their different business and risk profiles.

Special risks are mostly, but not always, managed and monitored by the generally eponymous specialist divisions. This applies to the majority of the management units in the Bank sector, including DZ BANK.

14.5.1. HR risk

RISK MANAGEMENT

The entities in the Bank sector have developed a mechanism known as a **Human Resources KPI cockpit** with standardized key performance indicators. The Human Resources KPI cockpit is intended to integrate HR strategies between the management units, generate enhanced transparency, and ensure comparability between the HR management systems in the Bank sector as well as enable the management units to measure and manage their HR activities. To this end, the cockpit specifies 21 key performance indicators (KPIs) across the following four categories: value added/finance, employer appeal, organization/efficiency, and innovation/learning.

The entities in the Bank sector pursue the objective of preventing or minimizing HR risk by identifying negative trends and abnormalities, and then initiating suitable corrective action. HR risk is managed and monitored using the following four risk factors embedded in the Human Resources KPI cockpit:

– **Exit risk**: Exit risk is measured and assessed using the employee turnover rate and the employee resignation rate.

– **Availability risk**: Quantitative and qualitative staffing requirements are managed on an annual basis as part of the strategic and operational planning in the management units. Data on sickness and absenteeism, appointment ratios for key positions, and information on numbers in trainee development help to minimize this risk.

– **Skills and qualifications risk**: The suitability and qualifications of employees are recorded using specific key figures for continuing professional development.

– **Motivational risk**: The entities in the Bank sector use standardized employee surveys to regularly update the Organizational Commitment Index (OCI) and the results are presented transparently in the cockpit.

Compliance functions and a comprehensive internal control system are used to counter fraud. Examples include internal rules on the minimum absence for employees with responsibility for trading positions.

As part of risk control at DZ BANK, relevant KPIs for HR management have been defined as risk indicators. The key figures are collated on a monthly basis as part of the risk indicator process and include training days per employee, resignation rate, total staff turnover rate, and the percentage of vacant positions.

The HR division of DZ BANK is involved in designing the standard scenarios relating to HR risk and validates the scenario assessment of the other entities in the Bank sector, particularly with regard to basis of calculation, frequency of occurrence, and loss level.

RISK FACTORS

The majority of employees at the German offices of the entities in the Bank sector fall within the scope of collective pay agreements or other collective arrangements, such as company agreements. The entities in the Bank sector could be hit by strikes called by labor unions. Because the collective pay agreement was terminated by employers in November 2012, there is currently no obligation not to engage in industrial action at DZ BANK.

Other HR measures, such as job cuts in response to a permanent fall in demand or to achieve efficiency enhancements, could lead to industrial disputes between the workforce (or the employee representatives/labor unions) and the entities in the Bank sector.

As part of contingency and crisis management systems, the entities in the Bank sector have initiated a range of measures to counter **strikes and other business interruptions**. However, the possibility cannot be ruled out that simultaneous industrial action at all sites over several days could cause lasting disruption to processes and workflows. Moreover, sensitive internal and external interfaces could be jeopardized by long-term business interruptions.

Similar concerns would also apply in the event of business interruptions, strikes or similar action at partners on which the operating activities of the entities in the Bank sector are reliant.

The future success of the entities in the Bank sector is dependent upon **capable managers and employees with the necessary skills and qualifications**. Given the current challenges presented by the regulatory environment, this particularly applies in the areas of regulatory reporting, external financial reporting, and risk control. In the labor market, there is fierce competition for managers and employees in these areas of activity driven by high demand and insufficient numbers of suitable individuals.

Unless the necessary number of suitable managers and employees can be attracted to the entities in the Bank sector within the required timeframe, and/or existing managers and employees can be retained by the entities in the sector, there will be a heightened risk that the sector will be unable or insufficiently able to satisfy the statutory requirements regarding regulatory reporting, external financial reporting, and risk control as a result of inadequate expertise in terms of either quality or quantity.

This could lead to sanctions from the banking regulator and a qualified audit opinion in the consolidated and separate financial statements and group management reports and management reports prepared by the entities in the Bank sector, which would impact negatively on the reputation of the DZ BANK Group overall and of individual entities in the Bank sector.

14.5.2. IT risk

RISK MANAGEMENT

The entities in the Bank sector use computers and data processing systems to carry out their operating activities. Practically all business transactions and activities are processed electronically using appropriate IT systems. These systems are networked with each other and are operationally interdependent.

Processes in the IT units of the entities in the Bank sector are designed with risk issues in mind and are monitored using a variety of control activities in order to ensure that IT risk is appropriately managed. The starting point is to determine which risks are unavoidable in certain aspects of IT. Detailed requirements can then be specified. These requirements determine the extent to which checks need to be carried out and are intended to ensure that all activities are conducted in compliance with the previously defined risk appetite.

IT units apply comprehensive physical and logical precautionary measures to guarantee the security of data and applications and to ensure that day-to-day operations are maintained. A particular risk would be a partial or total breakdown in data processing systems. The Bank sector counters this risk by using segregated data processing centers in which the data and systems are mirrored, special access security, fire control systems, and an uninterruptible power supply supported by emergency power generators. Regular exercises are carried out to test defined restart procedures to be used in emergency or crisis situations with the aim of checking the efficacy of these procedures. Data is backed up and held within highly secure environments in different buildings.

The central risk assessment method used by the IT division at **DZ BANK** is the assessment of risk events in the IT risk profile report. Risk events are deemed to be specific scenarios for which the level of loss and the probability of occurrence are assessed. The assessment carried out by IT division managers takes into account the results of the self-assessment report on the internal control system, the report on control points, and the report on findings and incidents.

The results of the assessment of IT risk events conducted at **DZ BANK** are used to prepare the risk self-assessment scenarios for the IT division. The IT risk groups, comprising IT operating risk, IT outsourcing risk, IT security risk and IT project risk, are each allocated one or more scenarios in the risk self-assessment. When the risk self-assessment is completed, the results of the decentralized risk assessment are compared with internal IT estimates and then analyzed. The results of the risk self-assessment process are also used as parameters for assessing IT risk events in the following year.

RISK FACTORS

Malfunctions or breakdowns in data processing systems or in the programs used on these systems, including attacks from external sources – such as hackers or malware –, could have an adverse impact on the ability of the entities in the Bank sector to efficiently maintain the processes necessary to carry out operating activities, protect saved data, ensure sufficient control, or continue to develop products and services. Furthermore, such malfunctions or breakdowns could lead to temporary or permanent loss of data, or cause additional costs because the original capability would need to be restored and/or preventive measures introduced to provide protection against similar events in the future.

Events outside the control of the entities of the Bank sector could also disrupt operational procedures. For example, when executing forward, currency, or commodities trades a risk arises that a system breakdown at a clearing agent, exchange, clearing house, or other financial intermediary could prevent the transactions in question from being settled at the agreed time and thus could also prevent the entities of the Bank sector from meeting their obligations. This could result in the withdrawal of counterparties from agreements entered into with entities in the Bank sector or lead to claims for damages against those entities.

14.5.3. Outsourcing risk

RISK MANAGEMENT

The entities in the Bank sector have outsourced activities and processes to third-party service providers to a considerable extent.

The process of assessing the risk and determining the degree to which an outsourcing arrangement is material is mostly carried out as part of the risk analysis for the outsourcing arrangement by the division responsible for the outsourcing with the involvement of a number of corporate and functional units, including internal audit, legal affairs, business continuity management, and compliance, and in consultation with the local coordinators for operational risk.

DZ BANK's main IT outsourcing partners responsible for running key IT applications are Fiducia & GAD IT AG, Karlsruhe and Münster, (Fiducia & GAD) and T-Systems International GmbH (T-Systems). In addition, the entire operation of DZ BANK's network has been outsourced to Ratiodata IT Lösungen & Services GmbH, Münster, (Ratiodata). Investment services and custody business services are processed by Deutsche WertpapierService Bank AG, Frankfurt am Main. The service provider Equens SE, Utrecht, is contracted to process payments. CardProcess GmbH, Karlsruhe, is responsible for credit card processing and acquiring processes on behalf of DZ BANK. DZ BANK's development loans are processed by Schwäbisch Hall Kreditservice GmbH, Schwäbisch Hall, (SHK), a subsidiary of BSH.

BSH has also outsourced application development, IT operations, and the processing of lending and building society operations to SHK.

DG HYP has transferred its IT and network operations to T-Systems and Ratiodata. Retail real estate loans are processed by Hypotheken Management GmbH, Mannheim, an indirect subsidiary of BSH.

EBRC, Luxembourg, is the outsourcing partner of **DZ PRIVATBANK** for its data center infrastructure. Further IT services are provided by Ratiodata. Fund accounting has been transferred to Union Investment Financial Services S.A., Luxembourg.

The main IT service providers for **UMH** are T-Systems, Fiducia & GAD, Ratiodata, and Computacenter AG & Co. oHG. Other activities, including activities within custody business and portfolio management, have also been outsourced.

In the entities of the Bank sector, outsourcing partners are managed in accordance with the currently applicable guidelines for insourcing and outsourcing. Service meetings are regularly held with IT service providers to facilitate communication and coordinate the IT services and other services to be provided by the third parties concerned. Compliance with contractually specified service level agreements is monitored by means of status reports and uptime statistics. The outsourcing partners submit annual audit reports in which they evaluate and confirm the effectiveness of the general controls and procedures.

RISK FACTORS

The risk arising in connection with the outsourcing of business activities is limited to the extent required by the regulator. Nevertheless, there is a risk that a service provider could fail or cease to be available as a result of insurmountable technical or financial difficulties. There is also a risk that the services performed by the service provider might not meet the contractually agreed requirements. The consequences could be that only some of the outsourced processes or services can be provided, or even that the outsourced processes or services cannot be provided at all. This could lead to a loss of business and to claims for damages from customers. There are contingency plans, explicit liability provisions in contracts, and exit strategies for this eventuality, including action to reduce this risk.

14.5.4. Risks in connection with the (consolidated) financial reporting process

RISK MANAGEMENT

In order to limit operational risk in this area of activity, DZ BANK and the other entities in the Bank sector have set up internal control systems for the (consolidated) financial reporting process as an integral component of the control systems put in place for the general risk management process. The functionality of these control systems is described in section 3.3.7.

RISK FACTORS

An internal control system relating to the (consolidated) financial reporting process needs to provide reasonable assurance that the financial statements are free from misstatements. The main risks in the (consolidated) financial reporting process are that, as a result of unintended misstatements or deliberate action, the consolidated financial statements and group management report of the DZ BANK Group as well as the consolidated financial statements, group management reports, separate financial statements, and management reports of DZ BANK and the other entities in the Bank sector might not provide a true and fair view of financial position and financial performance and/or that publication might be delayed. These risks could then have an adverse impact on investors' confidence in the DZ BANK Group and the individual entities in the Bank sector or on their reputation. Furthermore, sanctions could be imposed, for example by banking regulators.

Financial statements do not provide a true and fair view of financial position and financial performance if the disclosures in the statements are materially different from what they should be. Differences are classified as material if, individually or as a whole, they could influence economic decisions made by the users of the financial statements on the basis of the financial statements. The internal control system related to the (consolidated) financial reporting process aims to reduce these risks.

14.5.5. Legal risk

RISK MANAGEMENT

Legal risk could arise, in particular, from changes in the legal environment (legislation and decisions by the courts), changes in official interpretations, government interventions, court or arbitration proceedings, and changes in the business environment. Tax risk with legal risk implications is not included at this point; it is described in section 14.5.6. below.

Decentralized systems for managing legal risk have been established in the entities in the Bank sector. Within the management units, responsibility for managing legal disputes normally lies with their organizational units responsible for dealing with legal issues.

The entities in the Bank sector pursue a strategy of avoiding legal risk. The starting point for managing legal risk is the ongoing process of identifying, recording, and monitoring risk.

If any legal risk is identified, the affected management units assess the risk parameters in terms of their probability of occurrence and possible impact in quantitative and qualitative terms. In addition, the amounts in dispute in the divisions are calculated as part of the assessment of risk indicators and, if they exceed certain thresholds, the affected divisions must prepare a report. As part of the annual risk self-assessment, the legal affairs divisions of the management units help to assess the standard scenarios for legal risk through management and control of operational risk. The results are taken into account when determining the economic capital.

Identified risks are limited and mitigated by organizational measures, either legal or procedural, or are taken into account by recognizing provisions or similar allowances for losses on loans and advances.

The legal affairs divisions in the Bank sector entities submit reports on risk-related aspects of lawsuits that are pending or actually imminent to the Responsible Board Member. Separately, and depending on materiality thresholds, ad hoc risk reports are also submitted to the Responsible Board Member.

PROVISIONS RECOGNIZED ON THE BALANCE SHEET

In accordance with the relevant financial reporting standards, the entities in the Bank sector, including DZ BANK, recognize provisions for potential losses arising from contingent liabilities resulting from legal risk, provided a potential loss is extremely probable and can be reliably estimated. The ultimate liability may vary from such provisions recognized for the probable outcome forecast for legal proceedings.

Based on the information available at the time, provisions for risks arising from ongoing legal disputes are recognized on the balance sheet in an amount sufficient to cover potential losses. Any concentration risk owing to similarities between individual cases is taken into consideration. Comparable cases are aggregated to form a group for this purpose.

The amount in which provisions are recognized for risks arising from ongoing legal disputes is based on the information available at the time and is subject to assumptions and to scope for discretion in how a dispute is assessed. For example, this may be because the entities in the Bank sector do not yet have at their disposal all the information required to make a final assessment of the legal risk attaching to the lawsuits in question, particularly during the early stages of proceedings. Moreover, predictions made by entities in the Bank sector in relation to changes to legal circumstances, changes to official interpretations, or – in the case of court cases – to procedural orders, decisions by the courts, or the arguments expected to be put forward by the opponent in the case may later turn out to be unfounded. Nor are estimates of potential losses arising from these proceedings, that could act as benchmarks or reliable assessments for other cases, generally suitable for statistical or quantitative analysis.

It is therefore difficult to predict the financial implications of such investigations and legal disputes or to assess when they will come to an end. The provisions recognized to cover the potential liabilities could be exceeded.

RISK FACTORS

The entities involved have recognized provisions on their balance sheets for the material legal risks listed below, so that all losses that appear conceivable on the basis of current information are covered.

A judgment reached by the German Federal Court of Justice on October 28, 2014 prohibited the administration fee for consumer finance that is charged by many banks. In the Bank sector, this verdict largely affects **TeamBank**.

As a result of changes to the law in Hungary that came into effect in 2015, Lombard Pénzügyi és Lízing Zártkörûen Mûködo Részvénytársaság, Szeged, Hungary, (Lombard Lízing) incurred significant losses that have had a negative impact on the parent company, **VR-LEASING AG**, in previous years and in the year under review. In 2015, VR-LEASING AG signed a contract to sell Lombard Lízing as part of its strategic decision to wind down areas of its business that it has defined as non-core business. The transaction, and thus separation from the subsidiary, is expected to be completed in the second quarter of 2016. Provided that the sale goes ahead, and on the basis of the current legal situation in Hungary, the losses expected in 2016 have been absorbed both by VR LEASING and by the DZ BANK Group.

The entities in the Bank sector have also recognized provisions for legal risk in connection with **capital market products** and for risks that exist in connection with the current legal situation in relation to incorrect **cancellation right notices for consumer loans**.

14.5.6. Tax risk

RISK MANAGEMENT

Tax risk can arise, in particular, from changes in tax circumstances (tax legislation, decisions by the courts), changes in interpretation by tax authorities, changes in non-tax regulations, and from changes in the business environment.

The entities in the Bank sector have decentralized systems for managing tax risk. Within the management units, responsibility for managing tax risk normally lies with the organizational units responsible for dealing with tax issues.

The entities in the Bank sector pursue a strategy of avoiding tax risk. The starting point for managing tax risk is the ongoing process of identifying, recording, and monitoring risk. If any tax risk is identified, the risk parameters are assessed in terms of their probability of occurrence and possible impact in quantitative and qualitative terms. Identified risks are limited and mitigated by means of tax organizational measures.

The tax department at DZ BANK reports the group-wide data relevant to risk to the head of the Group Finance division and to the Responsible Board Member. Separately, and depending on materiality thresholds, ad hoc risk reports are also submitted to the above individuals.

RISK FACTORS

The entities in the Bank sector are subject to regular **audits by the tax authorities**.

Currently, audits for the tax-assessment periods in 2010 and 2011 are being carried out by the tax authorities at **DZ BANK** (including the tax group) in relation to corporation tax, trade tax, and value added tax. Audits by the tax authorities for the same period are also currently under way at **other entities** in the Bank sector. The audit for payroll tax purposes for the period 2007 to 2010 inclusive is also due to start at **DZ BANK**.

In the context of these tax audits, an alternative assessment of the tax risk or, in some cases, other information could give rise to retrospective tax liabilities or retrospective liabilities in relation to social security contributions for periods that have already been assessed. If the retrospective liabilities exceed the provisions recognized for tax risk, this could have a negative effect on the financial performance of the DZ BANK Group and the individual entities in the Bank sector.

As there are still outstanding audits by the tax authorities relating to a number of years, there is a risk that retrospective tax payments could be required and these payments would be subject to interest charges.

Business transactions are assessed for tax purposes on the basis of current tax legislation, taking into account the latest decisions by the courts and interpretations by the authorities. The outcome is factored into the measurement of the allowances for losses on loans and advances. Further risks could arise as a result of **changes in tax law or in decisions by the courts**, which could also have retroactive implications.

14.5.7. Compliance risk

RISK MANAGEMENT

In the context of their operating activities, the entities in the Bank sector must comply with various legal requirements in a large number of countries. These include prohibitions on accepting or granting benefits in connection with efforts to attract business, and prohibitions on other unfair business practices.

The management of risk arising from non-compliance with applicable laws, regulatory requirements, and internal rules and regulations is described in section 3.3.4.

RISK FACTORS

The compliance and risk management systems in the Bank sector are generally appropriate. Nevertheless, there is a risk that these systems could be inadequate for completely preventing or uncovering violations of legal provisions, for identifying and assessing all relevant risks for the entities in the Bank sector, or for initiating appropriate corrective measures.

The entities in the Bank sector cannot rule out the possibility of the existing compliance system proving to be inadequate, or of their employees violating domestic or foreign legal provisions regardless of the existing legal requirements, internal compliance guidelines and organizational requirements, and despite appropriate training and reviews, or of such activities remaining undiscovered.

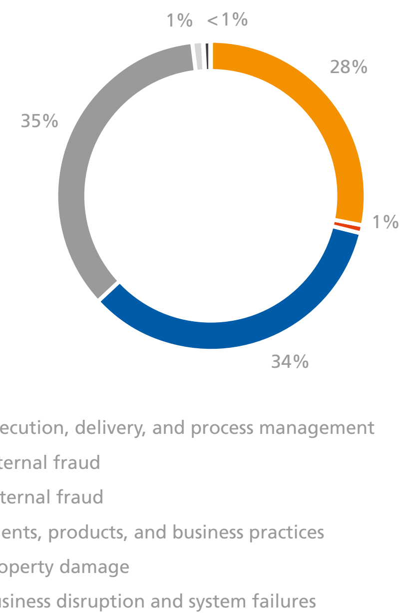
A violation of legal provisions may have legal implications for the entity concerned, for the members of its decision-making bodies, or for its employees. It may give rise, for example, to fines, penalties, retrospective tax payments, or claims for damages by third parties. The reputation of the DZ BANK Group as a whole and of the individual entities in the Bank sector may also suffer as a result.

14.6. LOSS EVENTS

Losses from operational risk do not follow a consistent pattern. Instead, the overall risk profile can be seen from the total losses incurred over the long term and is shaped by a small number of large losses. Consequently, comparisons between net losses in a reporting period and those in a prior-year period are not meaningful. Prior-year figures are therefore not disclosed.

Figure 43 shows the losses for the **Bank sector** reported in 2015 classified by loss event category. Over the course of time, there are regular fluctuations in the pattern of losses as the frequency of relatively large losses in each individual case is very low. The losses are not selected until the date on which the expense results

FIG. 43 – BANK SECTOR: NET LOSSES BY EVENT CATEGORY IN 2015[1]



1 In accordance with the CRR, losses caused by operational risks that are associated with risks such as credit risk are also shown.

in a cash outflow, thus ensuring consistency with the internal reporting.

In the **Bank sector**, the 'Clients, products, and business practices' and 'External fraud' event categories together accounted for the majority (69 percent) of net losses. The net loss in the 'Clients, products, and business practices' event category is largely attributable to one loss event resulting from changes in legal precedent and in how the law is interpreted. The net loss in the 'External fraud' category was caused by a number of large loss events.

Accounting for 45 percent of total net losses, the largest event category at **DZ BANK** was 'Execution, delivery, and process management'. The net losses in this event category resulted from losses in the trading business.

Losses did not reach a critical level relative to the expected loss at any point during 2015 in either the Bank sector or DZ BANK.

14.7. RISK POSITION

Using the internal portfolio model, the **Bank sector's** capital requirement for operational risk as at December 31, 2015 was calculated as €871 million. The upper loss limit was €1,150 million.

As at December 31, 2015, **DZ BANK's** capital requirement for operational risk calculated in accordance with the internal portfolio model amounted to €331 million. The upper loss limit as at December 31, 2015 was €548 million (December 31, 2014: €488 million). The risk capital requirements for both the Bank sector and for DZ BANK were within the applicable upper loss limits at all times during the course of 2015.

Because of changes in methodology, the figures given for the Bank sector and DZ BANK are not comparable with the figures as at December 31, 2014 disclosed in the 2014 opportunity and risk report, which had been calculated in accordance with the CRR Standardized Approach. The risk capital requirement for the Bank sector reported in 2014 was €628 million while the upper loss limit was €689 million. The corresponding 2014 figures reported for DZ BANK were a risk capital requirement of €178 million and an upper loss limit of €203 million.

14.8. SUMMARY AND OUTLOOK

Since 2015, the economic risk capital requirement for operational risk has been calculated using a portfolio model. The results from the model, combined with the materiality limits for collation of loss data, scenario-based risk self-assessments, and risk indicators, enable the efficient management of operational risk.

The groupwide implementation of the redesigned reporting system is planned for 2016, as is the enhancement of the risk self-assessment and the stress scenarios for operational risk.

Insurance sector

15. BASIC PRINCIPLES OF RISK MANAGEMENT IN THE INSURANCE SECTOR

15.1. RISK STRATEGY

The principles of risk management in the Insurance sector are based on R+V's approved risk strategy, which is updated every year. The risk strategy is derived from the business strategies, taking into account the strategic 4-year plan approved by the Board of Managing Directors at its spring meeting.

Life actuarial risk is managed with the objectives of holding a broadly diversified product portfolio and of developing existing products while structuring new, innovative products. In order to diversify the life insurance and pension provision portfolios, products are underwritten in a way that achieves a balance between the product pillars of the five-pillar strategy (traditional private pension provision, fund-based private pension provision, IndexInvest, occupational pension provision, and credit insurance). The actuarial assumptions are designed so as to build in adequate safety margins and address changes in the latest findings in order to withstand potential deviation risk as well as the current risk situation. Where products have policyholder participation, this represents the main instrument for mitigating risk and it is set appropriately. Underwriting guidelines and risk audits are used to prevent anti-selection. The risk exposure in the case of large individual risks may be limited by taking out appropriate reinsurance.

The objectives of managing **health actuarial risk** are a risk-conscious underwriting policy (achieved by means of binding underwriting guidelines and careful risk selection), rigorous cost/benefit management, the development of existing products, and the structuring of new, innovative products. Again, the actuarial assumptions must be designed so as to build in adequate safety margins and address changes in the latest findings in order to withstand potential deviation risk as well as the current risk situation. The risk exposure in the case of large individual risks may be limited by taking out appropriate reinsurance.

The management of **non-life actuarial risk in direct business** is aimed at achieving a portfolio with an optimum risk/reward ratio. R+V focuses on business in Germany, offering a full range of non-life insurance products. The assumption of risk in connection with expanding its market share is accepted subject to the proviso that the business is profitable. Underwriting guidelines and size restrictions ensure targeted risk selection. Depending on its risk-bearing capacity, R+V reviews whether to purchase reinsurance cover to reduce earnings volatility, insure against major and cumulative claims, and protect and boost existing financial strength and earnings power.

In **inward non-life business**, R+V also aims to optimize the portfolio from a risk/reward perspective. Risk selection is based on binding underwriting guidelines and the exclusions of liability defined in those guidelines. Individual liability limits and cumulative limits are derived from the underwriting capacities that limit the risk. The monitoring and management of limits may include the reallocation or adjustment of capacities and the minimization of risk by means of retrocession.

R+V's investments particularly give rise to interest-rate risk, spread risk, and equity risk. R+V's **market risk strategy** is determined by the provisions of the basic regulatory investment principles, the rules for tied assets specified in section 54 VAG (old version), the internal rules in the risk management guidelines for investment risk, and the provisions in the German Regulation on the Investment of the Tied Assets of Insurance Companies (AnlV), which applied until December 31, 2015.

Insurance companies are under an obligation to invest collateral assets and other tied assets to achieve the greatest possible security and profitability while at the same time ensuring the liquidity of the insurance company with an appropriate mix and diversification of investments. In addition, well-established collaboration arrangements between R+V's actuarial and investment departments as part of the management of assets and liabilities ensure that insurance contract benefit obligations on the balance sheet are matched with investment opportunities.

The market risk assumed by R+V reflects the investment portfolio structure developed as part of strategic asset allocation taking into account the individual risk-bearing capacity and long-term income requirements of R+V subsidiaries. The risk is managed within the framework of the overall risk management system and in compliance with the upper loss limits specified at DZ BANK Group level.

The management of market risk is connected with the following fundamental objectives of risk policy: ensuring competitive returns on investments taking into account individual risk-bearing capacities, achieving defined minimum investment returns in stress scenarios, and securing a hidden asset level sufficient to ensure consistent earnings. The aim is also to guarantee that there is a sufficient proportion of fungible investments. The methods used to limit risk include policyholder participation, the setting of an appropriate discount rate, and recognition of supplementary change-in-discount-rate reserves.

In line with the risk strategy for **counterparty default risk**, R+V aims to maintain a high average credit rating for its portfolios, to avoid concentrations of issuers at portfolio level, and to comply with the limits that have been set for counterparties and debtors of insurance and reinsurance companies.

The risk strategy for **operational risk** aims to further raise awareness of operational risk and to incorporate it into the overall management of all risk types.

15.2. ORGANIZATION, RESPONSIBILITY, AND RISK REPORTING

The risk management process, which is implemented across all entities in the R+V subgroup, defines rules for the way in which risks are identified, analyzed, assessed, managed and monitored, and the way in which they are reported and communicated. These rules form the basis for a central **early-warning system**.

Participations are also included in the R+V subgroup's risk management system. In addition, the risk management system incorporates a business continuity management system. Risk-bearing capacity is reviewed and measured at least once a quarter and the process includes a qualitative review of binding key performance indicators and threshold values. Corrective action must be initiated if a specified index value is exceeded. In addition, managers and employees are surveyed with the aim of ensuring that risks are identified at an early stage. Risk-bearing capacity and all material risks are subsequently evaluated at the Risk Conference, which is held every quarter.

The central **reporting of risk** at R+V is intended to provide transparent reporting. A system of reports to the member of R+V's Board of Managing Directors responsible for the business area concerned and to the member of R+V's Board of Managing Directors responsible for risk management allows for the notification of material changes in risks. Company information that has a bearing on risk exposure is passed to the relevant supervisory body at R+V on a regular basis.

16. ACTUARIAL RISK

16.1. DEFINITION AND CAUSES

16.1.1. Definition

Actuarial risk is the risk that the actual cost of claims and benefits deviates from the expected cost as a result of chance, error or change. It is broken down into the following categories defined by Solvency II:

– life actuarial risk
– health actuarial risk
– non-life actuarial risk.

LIFE ACTUARIAL RISK

Life actuarial risk refers to the risk arising from the assumption of life insurance obligations, in relation to the risks covered and the processes used in the conduct of this business. Life actuarial risk is calculated as the combination of capital requirements for, as a minimum, the following sub-modules:

- **Mortality risk** describes the risk of loss or an adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of mortality rates, where an increase in the mortality rate leads to an increase in the value of insurance liabilities.

- **Longevity risk** describes the risk of loss or an adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of mortality rates, where a decrease in the mortality rate leads to an increase in the value of insurance liabilities.

- **Disability-morbidity risk** describes the risk of loss or an adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of disability, sickness, or morbidity rates.

- **Life catastrophe risk** describes the risk of loss or adverse change in the value of insurance liabilities, resulting from the significant uncertainty of pricing and assumptions when recognizing provisions related to extreme or unusual events.

- **Lapse risk** describes the risk of loss or an adverse change in the value of insurance liabilities, resulting from changes in the level or volatility of the rates of policy lapses, cancellations, renewals, and surrenders.

- **Life expense risk** describes the risk of loss or an adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of the expenses incurred in servicing insurance or reinsurance contracts.

HEALTH ACTUARIAL RISK

Health actuarial risk refers to the risk arising from the assumption of health and casualty insurance obligations, in relation to the risks covered and the processes used in the conduct of this business.

NON-LIFE ACTUARIAL RISK

Non-life actuarial risk refers to the risk arising from the assumption of non-life insurance obligations, in relation to the risks covered and the processes used in the conduct of this business. It is calculated as the combination of capital requirements for the following submodules:

- **Premium and reserve risk** describes the risk of loss or an adverse change in the value of insurance liabilities, resulting from fluctuations in the timing, frequency, and severity of insured events, and in the timing and amount of claim settlements.

- **Non-life catastrophe risk** describes the risk of loss or an adverse change in the value of insurance liabilities, resulting from the significant uncertainty of pricing and assumptions when recognizing provisions related to extreme or unusual events.

- **Lapse risk** describes uncertainty about the continuation of the direct insurance and reinsurance contracts. It results from the fact that the lapse of contracts that are profitable for the insurance company will lead to a reduction in own funds.

16.1.2. Causes

In the DZ BANK Group, actuarial risk arises from the business activities of the insurance subsidiary R+V and its subsidiaries. The risk arises from the direct life insurance and health insurance business, the direct non-life insurance business, and the inward reinsurance business.

Actuarial risk arises in the form of variances from the expected level of losses resulting from the uncertainty relating to the timing, frequency, and amount of claims. The risk may also arise from unpredictable changes in insured risks, claim distributions, expected values and mean variations due, for example, to changes in climatic and geological conditions or by technological, economic or social changes. Incomplete information about the genuine legitimacy of claims due to incorrect statistical analysis, or incomplete information about the future validity of claims identified as legitimate in the past could be other causes.

The actuarial risk situation in life insurance companies is also characterized to a large extent by fixed premiums and the long-term nature of the guaranteed benefits in the event of a claim.

The actuarial risk situation of a health insurance company is characterized to a large extent by a rise in the cost of claims, caused both by the performance of its portfolio and by the behavior of policyholders and service providers.

16.2. MANAGEMENT OF LIFE ACTUARIAL RISK

16.2.1. Risk measurement

The risk for insurance contracts subject to **mortality risk** is described as a 15 percent increase in mortality.

The risk for insurance contracts subject to **longevity risk** is described as a 20 percent increase in longevity.

The overall solvency requirement for **disability-morbidity risk** is analyzed on the basis of a permanent 35 percent rise in the disability rates expected for the next 12 months, a permanent 25 percent rise in the disability rates expected for the period after those 12 months, and a permanent 20 percent decrease in all expected likely cases of policyholders being able to return to work.

The risk for insurance contracts affected by **life catastrophe risk** is described as an immediate increase of 0.15 percentage points in mortality rates in the next 12 months.

The risk for insurance contracts subject to **lapse risk** is described for the following scenarios: for an increase in lapses, a 50 percent rise in the lapse rate; for a decrease in lapses, a 50 percent reduction in the lapse rate; for a mass lapse event, lapse of 40 percent of the contracts.

The overall solvency requirement for **life expense risk** is based on the following stress scenarios: a permanent 10 percent rise in the measurement of the costs reflected in the insurance liabilities; an increase in the cost inflation rate by one percentage point.

16.2.2. Risk management in direct life insurance business

Actuarial risk is minimized by carrying out a careful, prudent cost calculation while products are still in development. This applies to the development of existing products as well as the design of innovative new types of insurance and is carried out by incorporating adequate safety margins into actuarial assumptions in compliance with legislation. The responsible actuary makes sure that the statutory provisions are satisfied. The assumptions are structured in such a way that they not only withstand the current risk situation, but also accommodate potential changes in the risk position. Actuarial control systems are used on a regular basis to decide whether the cost calculation for future new business needs to be changed. The calculation is also adjusted on an ongoing basis in line with the latest actuarial findings.

A number of measures are taken to prevent a concentration of adverse risks in the portfolio. Before contracts are signed, extensive risk reviews are carried out to limit **mortality and disability-morbidity risks**. In general, risk is only assumed in compliance with fixed underwriting guidelines. High levels of individual or cumulative risk are limited by an appropriate degree of reinsurance.

In principle, the broad diversification of insured risks within the group has the effect of mitigating risk. For example, an increase in mortality has an adverse impact on endowment life and risk insurance policies, but at the same time has a positive impact on the longevity risk associated with pension insurance.

Life expense risk is mitigated by cutting costs as far as possible and operating sustainably.

Lapse risk is mitigated by structuring life insurance contracts to provide maximum flexibility should policyholders' circumstances change. A range of different options therefore enables customers to maintain their contract instead of canceling it. Designing policyholder participation with an attractive final bonus also counteracts lapse risk.

Future **policyholder participation** is also an important instrument with which to reduce actuarial risk relating to life insurance.

16.3. MANAGEMENT OF HEALTH ACTUARIAL RISK

16.3.1. Risk measurement

Health actuarial risk is calculated by combining the capital requirements for the subcategories 'non-life health insurance', 'life health insurance', and 'health catastrophe risk'.

The methods described in the sections on life actuarial risk and non-life actuarial risk are used to measure risk in the subcategories.

Health actuarial risk also includes significant parts of the group's casualty insurance business as well as its health insurance business.

16.3.2. Risk management in health and casualty insurance

RISK MANAGEMENT IN HEALTH INSURANCE BUSINESS

In the health insurance business, actuarial risk is managed by means of a **risk-conscious underwriting policy**, the features of which are binding underwriting guidelines, careful selection of risk, and targeted management of benefits and costs. In many of the health insurance rate scales, deductibles are one of the specific mechanisms used to control the extent of claims. Provisions are recognized to ensure that all benefit obligations under insurance contracts can be met.

In accordance with VAG provisions, R+V carries out an annual comparison of its calculations with the insurance benefits it is required to pay. If this comparison of claims for an observation unit within a particular scale of insurance rates reveals a variance that is other than temporary, the relevant **premiums** are adjusted. An independent trustee is consulted to ensure that the basis of the calculations is sufficiently secure. A safety margin factored into premiums also ensures that obligations can be met if claims are higher than the level provided for in cost calculations.

In the health insurance business, the **decrement tables** include assumptions regarding mortality and the probability of other relevant withdrawal factors. Under the requirements set out in the Calculation Regulation (KalV), these assumptions must be specified and regularly reviewed from the perspective of prudent risk assessment. It is for this reason that a new mortality table is developed at regular intervals by the Verband der Privaten Krankenversicherung e.V. (PKV) [Association of German private healthcare insurers] in consultation with BaFin. In accordance with statutory provisions, R+V carries out an annual comparison of its calculations with the most recently published mortality tables.

When determining **lapse probabilities** for the purposes of its calculations, R+V uses both its own observations and the latest figures published by BaFin.

Where premiums were adjusted on January 1, 2015, R+V used the new PKV mortality table valid for 2015 to determine both new business premiums and those **premium adjustments** in existing business.

Unisex insurance rate scales are offered in R+V's **new business**. The cost calculation for these rates is not only based on the existing gender breakdown, but also takes into account the expected pattern of switching by existing policyholders to the new rates. The appropriateness of the composition of the portfolio resulting from the calculations is reviewed by actuaries using comparable calculations.

RISK MANAGEMENT IN CASUALTY INSURANCE BUSINESS

The risk situation in the casualty insurance division is characterized by the fact that it is fixed-sum insurance and not indemnity insurance. Consequently, the maximum benefit per insured person is restricted to the sum insured.

A risk-conscious underwriting policy is adopted for casualty insurance. Premiums are reviewed on an ongoing basis to ensure that they remain appropriate. Claims are assessed on a case-by-case basis. Experts and assessors are selected very carefully in order to obtain assessments that are realistic and appropriate.

16.4. MANAGEMENT OF NON-LIFE ACTUARIAL RISK

16.4.1. Risk measurement

The capital requirements for **premium and reserve risk** are calculated on the basis of risk factors and volume measures for all branches of insurance in which business is conducted. The volume measures take account of geographical diversification. The risk factors (e.g. the standard deviation as a percentage of the volume measure) describe the degree of threat posed by the risk. The volume measure for the **premium risk** is essentially the net premium income earned in the financial year and in the first and second years after that. The volume measure for the **reserve risk** constitutes the net claims provisions in the form of a best-estimate valuation.

The capital requirement for **catastrophe risk** is calculated as an aggregation of four risk modules. These are natural catastrophe risk (broken down into the following natural hazards: hail, storm, flood, earthquake, and subsidence), the catastrophe risk of non-proportional reinsurance in non-life insurance, risk of man-made catastrophe, and other catastrophe risk in non-life insurance. Catastrophe risk is calculated using the volume measures of sums insured and premiums. Risk mitigation through reinsurance is taken into consideration.

To determine the overall solvency requirement as part of internal risk assessment, empirical distributions are generated for the relevant parameters for parts of the **direct insurance portfolio**, such as the claim amount and the number of claims per sector and claim type (e.g. basic claims, major claims, catastrophe claims). The value-at-risk can then be determined with the required confidence level directly from the underwriting result modelled in this way, recorded as a loss function. The parameterization of the distributions taken into account uses historical portfolio data and their planning data and reflects the entity's actual risk position.

The risk modeling for calculating basic claims and minor cumulative events relating to the natural hazards hail, storm, and flood is based on mathematical/statistical methods. Only basic claims are modeled for the risk of earthquake. The minimum and maximum claim amounts for minor cumulative events are derived from the group's own claims history. Modeling is based on the group's own claims data.

The risk modeling for major cumulative events relating to the natural hazards hail, storm, flood, and earthquake uses probability-based natural hazard models. To this end, catastrophe claims are used that have been modeled by external providers for each natural hazard and take account of the specific risk profile.

In its **inward reinsurance business**, R+V deploys a simulation tool for stochastic risk modeling of catastrophe risk. To model the natural catastrophe risk on an individual contract basis, event catalogs from external providers containing predefined scenarios based on historical observations are used. The event catalogs cover the material countries and natural hazards of the risk written for the risks in inward reinsurance. Modeling based on the group's own claims history is also used. This involves generating scenarios for the current portfolio on the basis of historical major claims.

In inward reinsurance, modeling based on the group's own claims history is used to determine the overall solvency requirement for the risk of **man-made catastrophe**. This involves generating scenarios for the current portfolio on the basis of the historical major claims.

The overall solvency requirement for **lapse risk** is essentially determined on the basis of a stress scenario involving the lapse of 40 percent of those insurance contracts whose lapse would lead to an increase in the best-estimate valuation for the premium provision.

16.4.2. Risk management in direct non-life insurance business

Premium and reserve risk is managed through targeted risk selection, risk-oriented premiums and products, and profit-oriented underwriting guidelines. In order to maintain a balanced risk profile, R+V ensures it has adequate reinsurance cover for major individual risks. Managers use planning and control tools to ensure they are in a position at an early stage to identify unexpected or adverse portfolio or claim trends and to initiate appropriate corrective action in response to the changes in the risk situation. To make these risks manageable, pricing is based on a precise calculation with the help of mathematical/statistical modeling.

Market monitoring and ongoing checks on the action taken provide further options for managing the business at an early stage, taking into account the prevailing risk appetite.

The measurement of the overall solvency requirement for **natural catastrophe risk** is supplemented by regular analysis of the policy portfolio. This analysis carried out with the aid of tools such as the ZÜRS Geo information system (zoning system for flooding, backwater flooding, and heavy rainfall) investigates risk concentrations and changes in these concentrations over time. The use of geographical diversification and the deployment of underwriting guidelines form the basis for managing risks arising from natural disasters.

To reduce underwriting risk, R+V purchases facultative and obligatory reinsurance cover, formulates risk exclusions, and designs risk-appropriate deductible models. Risk-bearing capacity is regularly reviewed as part of the reinsurance decision-making process. This is used as the basis for reinsurance structures and liability layers.

In order to prevent or limit losses, R+V provides a network of different subsidiaries that offer specialist services to help customers and sales partners with contract, risk prevention, or restructuring issues.

Estimating obligations arising from loss events that have occurred is subject to uncertainty. In compliance with Solvency II requirements, mathematical/statistical methods are used to calculate future payment obligations for the purpose of measuring insurance liabilities. Insurance liabilities are measured separately for premium and claims provisions. R+V's own experience, actuarial statistics, and additional sources of information are used for the calculations. The methods deployed are based on generally accepted principles of actuarial practice.

16.4.3. Risk management in inward non-life insurance business

R+V counters **premium and reserve risk** by continuously monitoring the market as well as the economic and political situation, by managing risk in accordance with its corporate strategy, and by setting insurance rates appropriate to the risk involved. Risk management is conducted via a clearly structured and earnings-driven underwriting policy. The assumption of risk is circumscribed by mandatory underwriting guidelines and limits that restrict potential liability arising from both individual and cumulative claims. R+V takes account of economic capital costs when underwriting risk. Compliance with these requirements is regularly monitored.

The material actuarial risks in the inward reinsurance portfolio are **catastrophe risk**, long tail risk, reserve risk and also far-reaching changes in the trends underlying the main markets. The actual and potential losses arising from the level and frequency of claims under natural disaster insurance are recorded and assessed using industry-standard software and R+V's own additional verification systems. The portfolio is continuously monitored for possible concentrations of natural disaster risk.

The objective in managing natural disaster risk is to ensure that there is a broad balance of risk across all categories and that the risk is diversified geographically around the globe.

Limits are set to support central management and limitation of cumulative risks arising from individual natural hazards. One of the key mechanisms for managing risk is a systematic check on the cumulative authorized limits for natural disaster risks. The modeled exposures remained within the authorized limits.

Action that can be taken to mitigate the risk includes management of deductibles and retrocession taking into account risk-bearing capacity and the effective costs of retrocession. Minimum requirements apply in relation to the credit rating of retrocessionaires. R+V has sufficient own funds and reserves providing the necessary risk-bearing capacity so there is currently no need to purchase further reinsurance (retrocession).

R+V monitors the claims rate trend promptly and continuously, allowing it to initiate preventive measures so that it always has a sufficient level of reserves. The reserves position is monitored in a number of ways, including by means of an expert report, which is prepared once a year.

16.5. RISK FACTORS

In the case of products with long-term guarantees, which constitute the bulk of the **direct life insurance business**, there is a risk of negative variances over the term of the contracts compared with calculation assumptions because of the length of time covered by the contracts. The relevant risk factors include changes in life expectancy, increasing rates of disability-morbidity, and disproportionately strong cost increases.

In its **direct non-life insurance and inward non-life reinsurance business**, R+V focuses on the provision of cover for disasters. This includes both natural disasters, such as earthquakes, storms, and floods, and man-made disasters.

These events cannot be predicted. Generally speaking, there is both the risk of particularly significant individual loss events and also the risk of a large number of loss events that are each not necessarily significant in themselves. In any one year, the actual impact from the size and frequency of losses could therefore substantially exceed the forecast impact.

An unfavorable pattern of claims could result in an increase in the insurance benefit payments reported in the income statement, and this in turn could have a negative effect on the DZ BANK Group's operating profit.

16.6. CLAIMS RATE TREND IN NON-LIFE INSURANCE

In **direct non-life insurance**, claims relating to natural disasters were dominated by two consecutive storms, Mike and Niklas, with losses totaling €52 million, and two low-pressure systems, Siegfried and Thompson, involving losses of €44 million. There was also an individual loss event caused by fire of €20 million. Nevertheless, the claims rate for major and cumulative claims was slightly lower than in previous financial years. The underlying cost of claims (excluding major and cumulative claims) was also below the 5-year average. Overall, this resulted in an annual claims rate that was lower than rates in the past.

Major and cumulative claims in **inward reinsurance** were at an average level in 2015 and were within expectations. One of the most significant individual loss events, of €16 million, was the explosion in Tianjin, China. There was also a lending-related loss in Spain of €16 million.

Changes in claims rates and settlements (net of reinsurance) in direct non-life insurance and inward non-life reinsurance business are shown in figure 44.

16.7. RISK POSITION

As at December 31, 2015, the **overall solvency requirement for life actuarial risk** amounted to €501 million (December 31, 2014: €423 million). The increase was predominantly attributable to the change in interest rates. The **upper loss limit** was set at €520 million as at the balance sheet date (December 31, 2014: €450 million). The upper loss limit was not exceeded at any time during 2015.

As at December 31, 2015, the **overall solvency requirement for health actuarial risk** was measured at €62 million (December 31, 2014: €58 million), with an **upper loss limit** of €70 million (December 31, 2014: €80 million). Again, the risk capital requirement was below the upper loss limit at all times during the course of 2015.

As at December 31, 2015, the **overall solvency requirement for non-life actuarial risk** amounted to €2,567 million (December 31, 2014: €2,334 million). This increase was largely attributable to the rise in

FIG. 44 – INSURANCE SECTOR: CLAIMS RATE AND SETTLEMENTS (NET OF REINSURANCE)[1]

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Claims rate (net) as % of premiums earned										
Including major/natural disaster claims	76.2	75.5	78.2	75.6	77.7	77.3	73.0	72.6	73.7	71.0
Excluding major/natural disaster claims	74.0	73.8	69.1	72.7	71.4	75.0	73.0	70.6	70.1	69.8
Settlements (net) as % of provision for incoming claims										
Non-life	1.6	2.1	0.5	0.3	1.9	4.8	4.8	8.4	6.1	7.1

1 Direct non-life insurance business and inward reinsurance.

premium and reserve risk and in non-life catastrophe risk resulting from the growth in business volume. The **upper loss limit** was set at €2,600 million as at the balance sheet date (December 31, 2014: €2,300 million). It was not exceeded at any time in the year under review.

The overall solvency requirement for the various types of non-life actuarial risk is shown in figure 45.

16.8. SUMMARY AND OUTLOOK

R+V possesses a number of tools for effectively controlling actuarial risks that have been identified and for identifying new risks at an early stage. The capital it holds, its well-diversified product portfolio, strong distribution channels, and cost-conscious business operations generally enable R+V to manage these risks and benefit from opportunities that arise.

The changes in actuarial risk in direct non-life insurance in 2016 will be shaped by the strategy of achieving long-term profitable growth in all segments of R+V.

In its inward reinsurance business, R+V intends to expand its portfolio, which is well diversified in terms of geography and sector, by continuing the earnings-driven underwriting policy it has pursued in previous years.

FIG. 45 – INSURANCE SECTOR: OVERALL SOLVENCY REQUIREMENT FOR NON-LIFE ACTUARIAL RISK

€ million	Dec. 31, 2015	Dec. 31, 2014
Premium and reserve risk	1,396	1,172
Non-life catastrophe risk	1,832	1,746
Lapse risk	49	50
Total	**2,567**	**2,334**

17. MARKET RISK

17.1. DEFINITION AND CAUSES

Market risk describes the risk arising from fluctuation in the level or volatility of market prices of assets, liabilities, and financial instruments that have an impact on the value of the assets and liabilities of the entity. It suitably reflects the structural mismatch between assets and liabilities, in particular with respect to their duration.

Market risk is broken down into the following subcategories:

- **Interest-rate risk** describes the sensitivity of the values of assets, liabilities, and financial instruments to changes in the term structure of interest rates or to the volatility of interest rates. The persistently low level of low interest rates has resulted in an increased risk, particularly for portfolios of life-insurance contracts with a high guaranteed return.

- **Spread risk** describes the sensitivity of the values of assets, liabilities, and financial instruments to changes in the level or volatility of credit spreads above the risk-free interest rate term structure. Default risk and migration risk are also examined in this subcategory. The credit spread is the difference in interest rates between a high-risk and a risk-free fixed-income investment. Changes in the credit spread lead to changes in the market value of the corresponding securities.

- **Equity risk** describes the sensitivity of the values of assets, liabilities, and financial instruments to changes in the level or volatility of the market prices of equities. Equity investment risk is also a part of equity risk. Equity risk arises from existing equity exposures as a result of market volatility.

- **Currency risk** describes the sensitivity of the values of assets, liabilities, and financial instruments to changes in the level or volatility of exchange rates. Currency risk arises as a result of exchange rate volatility either from investments held in a foreign currency or the existence of a currency imbalance between insurance liabilities and investments.

- **Real-estate risk** describes the sensitivity of the values of assets, liabilities, and financial instruments to changes in the level or volatility of the market prices of real estate. Real-estate risk can arise as a result of negative changes in the fair value of real estate held directly or indirectly. This may be the result of a deterioration in the specific characteristics of the real estate or a general change in market prices (for example in connection with a real-estate crash).

- **Concentration risk** represents the additional risk for an insurance or reinsurance company stemming either from lack of diversification in the asset portfolio or from a large exposure to the risk of default by a single issuer of securities or a group of related issuers.

According to the Solvency II definition, the bulk of credit risk within market risk is assigned to spread risk. The other parts of credit risk are measured within counterparty default risk and other risk types.

17.2. RISK MANAGEMENT

17.2.1. Market risk measurement

When measuring market risk, shock scenarios are examined that have been taken from **Solvency II** and, in some cases, supplemented by the group's own parameterization.

The capital requirements for **interest-rate risk** are determined on the basis of shock scenarios calculated for an increase in interest rates and a decrease in interest rates. For maturities for which the market is sufficiently liquid, the overall solvency requirement for interest-rate risk is calculated using the group's own stress factors derived from market data.

The capital requirements for **spread risk** are calculated using a factor approach based on the relevant lending volume. The level of the stress factor is determined by the security's rating and the modified duration of the investment. With loan securitizations, a distinction is made between single, double, and multiple securitization structures. Depending on which is applicable, different rating-dependent stress factors are used. R+V uses its own stress factors, based on a portfolio model and with particular regard to concentration risk, to calculate the overall solvency requirement.

The capital requirements for **equity risk** are determined on the basis of stress scenarios calculated for a decrease in market value. The stress amounts depend on the equity type, e.g. whether it is listed on a regulated market in a member state of the European Economic Area or Organisation for Economic Co-operation and Development (OECD). The capital requirement for equity risk is based on the relevant equity exposure. It is determined using modeling and risk quantification based on observable data. The parameters are increased in order to take account of default risk and concentration risk. Default risk describes the risk of loss resulting from issuer insolvency.

Currency risk is calculated using a scenario approach that reflects the impact of a decrease or increase in the exchange rate for a foreign currency. The stress factor for determining the overall solvency requirement is based on the individual currency portfolio of R+V. Lower factors are applied for currencies that are pegged to the euro than those that are not pegged to the euro.

The calculation of **real-estate risk** looks at both property held directly (e.g. land and buildings) and real-estate funds. The stress factor for determining the overall solvency requirement for real-estate risk is a stress scenario adapted from the standard formula and reflects the fact that direct holdings consist overwhelmingly of investments in German real estate and fund holdings consist primarily of European real estate.

The overall solvency requirement for **concentration risk** is not calculated separately because this risk is taken into account as part of the calculations for equity risk, spread risk, and counterparty default risk.

17.2.2. Principles of market risk management

The management of market risk is a significant element in the management of overall risk at R+V. Market risk at R+V is limited in part by the upper loss limits that are set at the level of the DZ BANK Group.

The risk attaching to investments is managed within the framework provided by the statutory provisions and internal guidelines (for details, see 'Market risk strategy' in section 15.1). Compliance with these rules is ensured at R+V by means of highly skilled investment management, appropriate internal control procedures, a forward-looking investment policy, and other organizational measures. The management of risk encompasses both economic and accounting aspects.

R+V continuously expands and refines the range of instruments used to assess and evaluate the risk attaching to new investments and to monitor risk in the investment portfolio, in order to be able to respond to any changes in the capital markets and to recognize, limit or avoid risk at an early stage.

R+V counters investment risk by observing the principle of achieving the greatest possible security and profitability while ensuring liquidity at all times. By maintaining an appropriate mix and diversification of investments, the investment policy of R+V takes particular account of the objective of risk reduction.

R+V monitors changes in all types of market risk through constant measurement and a process of reporting to the relevant bodies. Risk in all subcategories is quantified in the context of group-specific economic calculations. Stress tests represent an important early-warning system. In addition to natural diversification via maturity dates, issuers, countries, counterparties and asset classes, limits are also applied in order to mitigate risk.

Regular asset/liability management investigations are carried out at R+V. The necessary capital requirement to maintain solvency is reviewed on an ongoing basis with the support of stress tests and scenario analyses. Specifically, a systematic review is carried out to assess the effects of a long period of low interest rates and volatile capital markets. R+V uses derivatives to manage market risk.

17.2.3. Management of individual market risk categories

In the management of **interest-rate risk**, R+V adheres to the principle of a broad mixture and diversification of investments, combined with balanced risk-taking in selected asset classes and duration management that takes account of the structure of obligations. Furthermore, the use of pre-emptive purchases helps to provide a constant return from investments and to manage changes in interest rates and duration.

In the management of **spread risk**, R+V pays particular attention to high credit ratings for investments, with the overwhelming majority of its fixed-income portfolio being held in investment-grade paper (see figure 51 in section 17.4.2.). A significant proportion of the portfolio is also backed by further collateral. The use of R+V's own credit risk evaluations, which are often more rigorous than the credit ratings available in the market, serves to further minimize risk.

Mortgage lending is also subject to strict internal rules that help to limit credit risk. Analysis has shown that accounting considerations do not require any loan loss allowances to be recognized at portfolio level.

The management of **equity risk** is based on a core-satellite approach in which the core comprises shares in large, stable companies in indices that can be hedged to which satellite equities are added to improve the risk/return profile. Asymmetric strategies are also used to reduce or increase equity exposure under a rules-based approach.

Currency risk is controlled by systematic foreign-exchange management. Virtually all reinsurance assets and liabilities are denominated in the same currency.

Real-estate risk is mitigated by diversifying holdings across different locations and types of use. Because real-estate risk makes up only a small proportion of aggregate risk and R+V adopts a prudent investment policy, this risk is not material for R+V.

Concentration risk is of minor relevance to R+V and is reduced by maintaining an appropriate mixture and diversification of investments. This is particularly apparent from the granular structure of the issuers in the portfolio.

17.2.4. Distinctive features of managing market risk in personal insurance business

Due to the persistently low level of interest rates, there is a heightened risk that the guaranteed minimum interest agreed for certain products when contracts are signed cannot be generated on the capital markets over the long term. This particularly applies to life insurance contracts and casualty insurance contracts with premium refund clauses that guarantee minimum returns. In the case of products with long-term guarantees, there is a risk of negative variances over the term of the contracts compared with calculation assumptions because of the length of time covered by the contracts. The main reasons for variances are the change in the capital market environment and maturity mismatches between investments and insurance contracts. A protracted period of low interest rates increases the market risk arising from investments.

Market risk can be countered by underwriting new business that takes into account the current capital market situation and by taking the following action to boost the portfolio's risk-bearing capacity. It is crucial to ensure that there is enough free capital that can be made available even in adverse capital market scenarios. The necessary capital requirement to maintain solvency is reviewed on an ongoing basis with the aid of stress tests and scenario analyses as part of asset/liability management.

Risk is essentially mitigated by recognizing a supplementary change-in-discount-rate reserve as specified in the Regulation on the Principles Underlying the Calculation of the Premium Reserve (DeckRV) and adding to the discount rate reserves for existing contracts, thereby reducing the average interest payable on liabilities. In 2015, R+V added a total of €559 million to these supplementary reserves in its life insurance business, bringing the overall amount to €1,514 million. In its direct non-life business, it increased the reserves to €14 million. R+V expects to make further additions in 2016 and these additions have been included in the budget accounts.

Future policyholder participation is also an important instrument with which to reduce market risk attaching to life insurance policies.

The breakdown of benefit reserves by discount rate for the main life and casualty insurance portfolios is shown in figure 46.

A summary of the actuarial assumptions for calculating the benefit reserves for the main life and casualty insurance portfolios is presented in note 11 of the notes to the consolidated financial statements. It forms part of the notes on the accounting policies applicable to the 'Benefit reserve' line item on the balance sheet.

FIG. 46 – INSURANCE SECTOR: BENEFIT RESERVES BY DISCOUNT RATE FOR THE MAIN INSURANCE PORTFOLIOS[1]

Discount rate	Proportion of total benefit reserve in 2015[2]		Proportion of total benefit reserve in 2014[2]	
	(€ million)	(%)	(€ million)	(%)
0.00%	3,856	7.3	3,096	6.2
0.25%	550	1.0	–	–
0.75%	10	0.0	–	–
1.00%	23	0.0	–	–
1.25%	618	1.2	–	–
1.50%	72	0.1	43	0.1
1.75%	4,489	8.5	3,909	7.9
2.00%	142	0.3	76	0.2
2.25%	8,835	16.8	8,530	17.2
2.50%	102	0.2	127	0.3
2.75%	7,277	13.8	6,798	13.7
3.00%	4,079	7.7	4,496	9.0
3.25%	6,542	12.4	6,687	13.4
3.50%	4,444	8.4	4,654	9.4
3.75%	412	0.8	563	1.1
4.00%	7,405	14.1	7,278	14.6

1 The table covers the following insurance products that include an interest-rate guarantee:
– Casualty insurance policies with premium refund
– Casualty insurance policies with premium refund as pension insurance
– Pension insurance policies
– Endowment insurance policies, including capital accumulation, risk and credit insurance policies, pension plans with guaranteed insurance-based benefits
– Capital deposit products.
2 The share of the total benefit reserve attributable to supplementary insurance policies is listed under the relevant basis of calculation for the associated main insurance policy.

The discount rate for health insurance is regularly checked in accordance with the procedure developed by the Deutsche Aktuarvereinigung e.V. (DAV) [German Actuarial Association] for calculating the company actuarial discount rate. On the basis of these calculations and owing to the adjustment of premiums with effect from January 1, 2016, it will be necessary to reduce the discount rate used for observation units of R+V Krankenversicherung AG's existing portfolio with separate male and female rates in 2016 – as was also necessary in 2015. The reason for this step is the persistently low level of interest rates. When unisex insurance rates were introduced at R+V Krankenversicherung AG at the end of 2012, the discount rate was set at 2.75 percent for new business in anticipation of the interest-rate situation that was predicted at that time. This was also in line with the recommendations made by the DAV.

17.2.5. Managing risk arising from defined benefit pension obligations

The R+V entities have various pension obligations (defined benefit obligations) to their current and former employees. By entering into such direct defined benefit obligations, they assume a number of risks, including risks associated with the measurement of the amounts recognized on the balance sheet, in particular risk arising from a change in the discount rate, risk of longevity, inflation risk, and risk in connection with salary and pension increases. A requirement may arise to adjust the existing provisions for pensions and other post-employment benefits as a result of decisions by the courts, legislation, or accounting changes. All the plan assets at R+V without exception are assets in reinsured support funds and are subject to interest-rate risk. The strategy adopted for the pension assets is predominantly driven by the defined benefit obligations.

17.3. RISK FACTORS

Generating the guaranteed return required in its life insurance business may present R+V with additional challenges if interest rates remain low or turn negative and **credit spreads** remain narrow. Compared with actuarial risk, interest-rate risk plays a fairly minor role in non-life insurance business.

A widening of credit spreads on bonds in the market would lead to a drop in fair values. Falls in fair value of this nature could have a temporary impact on operating profit, or a permanent impact if bonds have to be sold. Given that cash flows in connection with insurance liabilities in the area of life insurance can be readily forecast and the fact that R+V's investments are well diversified, the risk that bonds might have to be sold at a loss before their maturity date is reduced.

Credit risk arises if there is a deterioration in the financial circumstances of issuers or borrowers, resulting in the risk of partial or complete default on receivables or in ratings-related impairment losses. The credit quality of R+V's investments is generally high with a sound collateralization structure. In the dominant public and financial sectors, they are largely loans and advances in the form of government bonds and German and European Pfandbriefe with collateral backed by statute.

At R+V, equities are used as part of a long-term investment strategy to guarantee that **obligations to policyholders** can be satisfied; generating profits by exploiting short-term fluctuations to sell shares is not its objective. The risk of having to sell equities at an inopportune moment is mitigated by its broadly diversified portfolio of investments.

17.4. LENDING VOLUME

17.4.1. Reconciliation of the lending volume

The amount and structure of the lending volume are key factors for the aspects of credit risk reflected in market risk and counterparty default risk. To identify possible risk concentrations, the volume liable to credit risk is broken down by sector, country group, and rating class.

In the Insurance sector, counterparty default risk is of secondary importance compared with market risk and actuarial risk.

Risk management and risk measurement do not include R+V's existing investment exposure to the assets held by its Italian subsidiaries Assimoco S.p.A., Segrate, (Assimoco) and Assimoco Vita S.p.A., Segrate, (Assimoco Vita).

Figure 47 shows a reconciliation of the lending volume on which the risk management is based to individual balance sheet items in order to provide a transparent illustration of the link between the consolidated financial statements and risk management. There are discrepancies between the internal management and external financial reporting measurements for some portfolios owing to the focus on the risk content of the items. Other main reasons for the discrepancies between the two sets of figures are differences in the scope of consolidation, differences in the definition of lending volume, and various differences in recognition and measurement methods.

FIG. 47 – INSURANCE SECTOR: RECONCILIATION OF THE LENDING VOLUME

€ billion

	Lending volume for internal management accounts		Reconciliation: Scope of consolidation		Reconciliation: Definition of the lending volume		Reconciliation: Carrying amount and measurement		Lending volume for the consolidated financial statements	
Investments held by insurance companies (note 56 to the consolidated financial statements)	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
of which: mortgage loans									8.7	8.0
of which: promissory notes and loans									8.8	9.0
of which: registered bonds									10.9	10.3
of which: other loans									0.8	1.0
of which: variable-yield securities									7.3	6.2
of which: fixed-income securities									36.8	34.6
of which: derivatives (positive fair values)									0.5	0.5
of which: deposits with ceding insurers									0.2	0.2
Total	74.0	71.4	3.7	3.1	–	-0.2	-3.9	-4.1	73.6	70.2
Balance as at Dec. 31, 2015									-0.4	-0.6%
Balance as at Dec. 31, 2014									-1.2	-1.7%

17.4.2. Change in lending volume

As at December 31, 2015, the total lending volume of R+V had increased by 4 percent to €74.0 billion (December 31, 2014: €71.4 billion). The expansion of the investment portfolios was driven by the growth in insurance business.

The volume of lending in the home finance business totaled €9.5 billion as at December 31, 2015 (December 31, 2014: €8.6 billion). Of this amount, 91 percent was accounted for by loans for less than 60 percent of the value of the property (December 31, 2014: 92 percent). The volume of home finance was broken down by finance type as at the reporting date as follows (figures as at December 31, 2014 shown in parentheses):

- Consumer home finance: €9.0 billion (€8.1 billion)
- Commercial home finance: €0.2 billion (€0.2 billion)
- Commercial finance: €0.4 billion (€0.4 billion).

In the home finance business, the entire volume disbursed is usually backed by traditional **loan collateral**.

The financial sector and the public sector, which are the dominant **sectors**, together accounted for 72 percent of the total lending volume at the balance sheet date (December 31, 2014: 73 percent). This lending mainly comprised loans and advances in the form of German and European Pfandbriefe with collateral backed by statute. Loans and advances to the public sector and consumer home finance (retail) highlight the safety of this investment.

Figure 48 shows the sectoral breakdown of the lending volume in the Insurance sector.

An analysis of the **geographical breakdown** of the lending volume in figure 49 reveals that Germany and other industrialized countries accounted for the lion's share – 92 percent – of the lending volume as at the balance sheet date (December 31, 2014: 91 percent). European countries dominated within the broadly diversified exposure in industrialized countries.

The high proportion of obligations in connection with the life insurance business requires investments with longer maturities. This is also reflected in the breakdown of **residual maturities** shown in figure 50. As at December 31, 2015, 80 percent (December 31, 2014: 77 percent) of the total lending volume had a residual maturity of more than 5 years. By contrast, just 3 percent of the total lending volume was due to mature within 1 year as at the reporting date (December 31, 2014: 4 percent). The increase in long residual maturities was mainly the result of investments in bonds.

The **rating structure** of the lending volume in the Insurance sector is shown in figure 51. Of the total lending volume as at December 31, 2015, 77 percent continued to be attributable to investment-grade borrowers (December 31, 2014: 81 percent). This reflects the regulatory requirements and the safety-oriented risk strategy of R+V. The lending volume that is not

FIG. 48 – INSURANCE SECTOR: LENDING VOLUME, BY SECTOR

€ billion	Dec. 31, 2015	Dec. 31, 2014
Financial sector	35.6	35.5
Public sector	17.4	16.8
Corporates	11.5	10.4
Retail	8.9	8.1
Industry conglomerates	0.6	0.6
Other	–	–
Total	**74.0**	**71.4**

FIG. 49 – INSURANCE SECTOR: LENDING VOLUME, BY COUNTRY GROUP

€ billion	Dec. 31, 2015	Dec. 31, 2014
Germany	32.6	32.8
Other industrialized countries	35.3	32.2
Advanced economies	1.0	1.0
Emerging markets	3.4	3.4
Supranational institutions	1.8	1.9
Total	**74.0**	**71.4**

FIG. 50 – INSURANCE SECTOR: LENDING VOLUME, BY RESIDUAL MATURITY

€ billion	Dec. 31, 2015	Dec. 31, 2014
≤ 1 year	2.3	2.6
> 1 year to ≤ 5 years	12.3	13.6
> 5 years	59.4	55.2
Total	**74.0**	**71.4**

rated, which made up 19 percent of the total lending volume (December 31, 2014: 17 percent), essentially comprised low-risk consumer home finance for which external ratings were not available.

To rate the creditworthiness of the lending volume, R+V uses external ratings that have received general approval. It also applies its own expert ratings in accordance with the provisions of Credit Rating Agency Regulation III to validate the external credit ratings. R+V has defined the external credit rating as the maximum, even in cases where its own rating is better. The ratings calculated in this way are matched to the DZ BANK credit rating master scale using the methodology shown in figure 18 (section 8.4.1.).

As at the reporting date, the 10 counterparties associated with the largest lending volumes accounted for 21 percent of R+V's total lending volume (December 31, 2014: 23 percent).

FIG. 51 – INSURANCE SECTOR: LENDING VOLUME, BY RATING CLASS

€ billion		Dec. 31, 2015	Dec. 31, 2014
Investment grade	1A	20.2	20.3
	1B	6.3	4.7
	1C	–	–
	1D	7.1	6.3
	1E	–	–
	2A	6.1	8.2
	2B	7.0	6.6
	2C	5.6	3.5
	2D	3.5	5.5
	2E	–	–
	3A	1.4	2.4
Non-investment grade	3B	1.3	0.5
	3C	0.7	0.6
	3D	–	–
	3E	0.1	0.1
	4A	0.2	0.2
	4B	–	0.1
	4C	0.1	0.1
	4D	–	–
	4E	0.1	–
Default		0.1	0.1
Not rated		14.2	12.2
Total		**74.0**	**71.4**

17.5. CREDIT PORTFOLIOS WITH INCREASED RISK CONTENT

The following disclosures form part of the above analyses of the entire credit portfolio. However, a separate analysis of R+V's exposure in credit portfolios with increased risk content has been included because of its significance for the risk position in the Insurance sector.

R+V continuously reviews its credit portfolio with regard to emerging crises. The risks identified are observed, analyzed, and managed with the aid of a regular reporting system and discussions in the operational decision-making committees at R+V. Adjustments are made to the portfolio if necessary. In the year under review, no notable country risks were identified other than exposures to eurozone periphery states.

Investments in European periphery countries totaled €5,029 million as at December 31, 2015 (December 31, 2014: €4,859 million), a rise of 4 percent. This increase was essentially the result of higher market values because there have been sharp declines in interest rates and in the risk premiums for bonds originating in eurozone periphery countries owing to the economic recovery in those countries and the interest-rate policy of the ECB. There were also adjustments to the portfolio of government bonds during the course of the year. Figure 52 shows the country breakdown of the exposure.

In addition to the portfolios shown in figure 52, R+V held additional exposures through its investments in the Italian subsidiaries Assimoco and Assimoco Vita. As at December 31, 2015, €2,965 million (December 31, 2014: €2,446 million) of these companies' total investments of €3,008 million (December 31, 2014: €2,716 million) were invested in Italian government bonds, corresponding to their liabilities.

17.6. RISK POSITION

As at December 31, 2015, the **overall solvency requirement for market risk** amounted to €2,905 million

(December 31, 2014: €2,489 million). The Insurance sector also set an **upper loss limit** of €2,950 million (December 31, 2014: €2,350 million). The higher overall solvency requirement is attributable to an increase in the interest-rate risk, which was because the prevailing level of low interest rates has increased the insurance liabilities resulting from guarantees, and to a rise in spread risk due to higher fair values of the interest-bearing instruments. Furthermore, the increase in equity risk caused the overall solvency requirement to rise due to recent share price movements. The upper loss limit was not exceeded at any time during 2015.

Figure 53 shows the overall solvency requirement for the various types of market risk.

17.7. SUMMARY AND OUTLOOK

As in prior years, market risks were manageable in 2015 and did not have any detrimental impact on the risk position or financial performance of the DZ BANK Group.

However, the persistently low level of interest rates, combined with a possible resurgence of the crisis in Europe, does represent a potential risk. This is being countered, particularly with regard to interest-rate risk, by proactive and rigorous asset/liability management and by careful management of risks and investments.

FIG. 52 – INSURANCE SECTOR: EXPOSURE IN EUROZONE PERIPHERY COUNTRIES

€ million	Dec. 31, 2015	Dec. 31, 2014
Portugal	**15**	**25**
of which: public sector	–	–
of which: non-public sector	15	25
of which: financial sector	8	15
Italy	**2,327**	**2,060**
of which: public sector	1,350	1,308
of which: non-public sector	978	752
of which: financial sector	551	342
Ireland	**743**	**845**
of which: public sector	119	92
of which: non-public sector	624	753
of which: financial sector	576	675
Greece	**–**	**1**
of which: public sector	–	–
of which: non-public sector	–	1
of which: financial sector	–	1
Spain	**1,945**	**1,929**
of which: public sector	1,347	1,204
of which: non-public sector	598	724
of which: financial sector	331	478
Total	**5,029**	**4,859**
of which: public sector	2,816	2,604
of which: non-public sector	2,213	2,255
of which: financial sector	1,466	1,512

18. COUNTERPARTY DEFAULT RISK

18.1. DEFINITION AND CAUSES

Counterparty default risk reflects possible losses due to unexpected default or deterioration in the credit standing of counterparties and debtors of insurance and reinsurance companies over the following 12 months. It covers risk-mitigating contracts, such as reinsurance arrangements, securitizations and derivatives, and receivables from intermediaries, as well as any other credit risk that is not otherwise covered by risk measurement.

Counterparty default risk takes account of collateral or other security that is held by or for the insurance or reinsurance company and any associated risks.

FIG. 53 – INSURANCE SECTOR: OVERALL SOLVENCY REQUIREMENT FOR MARKET RISK

€ million	Dec. 31, 2015	Dec. 31, 2014
Interest-rate risk	1,013	899
Spread risk	1,088	864
Equity risk	1,223	1,067
Currency risk	218	232
Real-estate risk	86	95
Total	**2,905**	**2,489**

At R+V, risks of this nature particularly relate to counterparties in derivatives transactions, reinsurance counterparties and defaults on receivables from policyholders and insurance brokers.

18.2. RISK MANAGEMENT

The capital requirements for counterparty default risk are determined on the basis of the relevant exposure and the expected losses per counterparty.

R+V manages counterparty default risk at the level of the individual entities within the R+V Group.

Transactions involving derivatives are subject to explicit internal guidelines, particularly those regarding volume and counterparty limits. A comprehensive, real-time reporting system enables the various risks to be monitored regularly and presented transparently. Only economic hedges are used and they are not reported on a net basis in the consolidated financial statements.

R+V uses the views expressed by the international rating agencies in conjunction with its own credit ratings to help it to assess counterparty and issuer risk. Compliance with the limits for major counterparties is reviewed on an ongoing basis, with regular checks on limit utilization and compliance with investment guidelines.

Effective default management mitigates the risks arising from defaults on receivables relating to direct insurance operations with policyholders and insurance brokers. The risk of default on receivables is also addressed by recognizing appropriate general loan loss allowances that are deemed to be adequate on the basis of past experience. The average ratio of defaults to gross premiums written in the past 3 years was 0.1 percent (December 31, 2014: 0.2 percent).

The credit risk for receivables arising from inward and ceded reinsurance business is limited by constantly monitoring credit ratings and making use of other sources of information in the market. As was the case at the end of 2014, virtually all receivables arising from ceded reinsurance, which amounted to €45 million as at December 31, 2015 (December 31, 2014: €190 million), were due from entities with a rating of A or higher. In 2015, receivables arising from reinsurance did not represent a material risk due to the excellent credit quality of the reinsurers. There were no material defaults in 2015 or in previous years.

Receivables that were due for payment more than 90 days after the balance sheet date amounted to €31 million as at December 31, 2015 (December 31, 2014: €35 million).

18.3. RISK POSITION

As at December 31, 2015, the **overall solvency requirement for counterparty default risk** amounted to €37 million (December 31, 2014: €43 million) with an **upper loss limit** of €50 million (December 31, 2014: €80 million). The upper loss limit was not exceeded at any point during 2015.

19. OPERATIONAL RISK

19.1. DEFINITION AND CAUSES

Operational risk is defined as the risk of loss arising from inadequate or failed internal processes, personnel, or systems, or from external events. It includes legal risk. Legal risk could arise, in particular, from changes in the legal environment (legislation and decisions by the courts), changes in official interpretations, and changes in the business environment.

19.2. RISK MANAGEMENT

The **risk capital requirement** for operational risk in the Insurance sector is determined in accordance with the standard formula in Solvency II. Risk is calculated as a factor of premiums and provisions and, in the case of unit-linked business, as a factor of costs.

R+V uses scenario-based risk self-assessments and risk indicators to manage and control operational risk. In the **risk self-assessments**, operational risk is assessed in terms of the probability of occurrence and the level of loss. Qualitative assessments can be used in exceptional cases.

Risk indicators help the Insurance sector to identify risk trends and concentrations at an early stage and to detect weaknesses in business processes. A system of warning lights is used to indicate risk situations based on specified threshold values. Risk indicators are collected systematically and regularly.

The internal control system is another key instrument used by R+V to limit operational risk. Rules and controls in each specialist division and reviews of the use and effectiveness of the internal control system carried out by Group Internal Audit avert the risk of errors and fraud. Payments are largely automated.

Powers of attorney and authorizations stored in user profiles, as well as automated submissions for approval based on a random generator, provide additional security. Manual payments are always approved by a second member of staff.

To ensure that it is operational at all times, R+V has a fully integrated business continuity management system with a central coordination function. A committee of the crisis managers responsible for IT, premises, and human resources provides specialist support, ensures that emergency business continuity management activities are coordinated within the R+V subgroup, and reports to the Risk Conference on any major findings and any business continuity exercises that have been carried out.

Business continuity management ensures that R+V's operating activities can be maintained in the event of a crisis. Contingency planning also includes time-critical business processes and the resources needed to maintain them.

19.3. RISK FACTORS

19.3.1. HR risk

The future success of R+V is dependent upon capable managers and employees with the necessary skills and qualifications. There is fierce competition for managerial and administrative staff in the labor market, driven by high demand and insufficient numbers of suitable individuals. Unless the necessary number of suitable managerial and administrative staff can be attracted within the required timeframe, and/or existing managers and employees can be retained, there will be a heightened risk that tasks will not be performed or will not be performed satisfactorily as a result of inadequate expertise in terms of either quality or quantity.

R+V provides long-term professional development and enhanced talent-management activities to ensure that staff members undergo the continuous development and training that will also make it possible to meet future staffing requirements from within the organization. The tools it uses for this purpose include a system for assessing high-potential employees, systematic succession planning, and skills upgrading programs.

In the interest of long-term staff retention, R+V runs programs to establish and enhance its appeal as a place to work, such as corporate health management, support for achieving a work-life balance, and regular staff surveys.

R+V counters operational risk in sales and distribution by providing continuous professional development courses for field sales staff. It applies the code of conduct for sales and distribution of the Gesamtverband der Deutschen Versicherungswirtschaft e.V. (GDV) [German Insurance Association]. This code focuses on a relationship between customers, insurance companies, and brokers that is defined by fairness and trust. The requirements set out in the code of conduct are reflected in the principles, policies and processes of each company.

19.3.2. IT risk

Malfunctions or breakdowns in data processing systems or in the programs used on these systems, including attacks from external sources – such as hackers or malware –, could have an adverse impact on the ability to efficiently maintain the processes necessary to carry out operating activities, protect saved data, ensure sufficient control, or continue to develop products and services. Furthermore, such malfunctions or breakdowns could lead to temporary or permanent loss of data, or cause additional costs because the original capability would need to be restored and/or preventive measures introduced to provide protection against similar events in the future.

Quality assurance in IT is based on well-established processes that follow best practice. A meeting is held every working day to discuss current topics and assign people to work on them. In addition, appropriate measures relating to adherence to service level agreements (e.g. system availability and system response times) are decided upon at monthly meetings attended by the IT divisional managers.

Comprehensive physical and logical precautionary measures guarantee the security of data and applications and ensure that day-to-day operations are maintained. A particular risk would be a partial or total breakdown in data processing systems.

R+V counters this risk by using two segregated data processing centers in which the data and systems are mirrored, special access security, fire control systems, and an uninterruptible power supply supported by emergency power generators. Regular exercises are carried out to test a defined restart procedure to be used in disaster situations with the aim of checking the efficacy of this procedure. Data is backed up and held within highly secure environments in various buildings. Furthermore, data is mirrored to a tape library at a remote, off-site location. This means that data will still be available, even if all of the data processing centers in Wiesbaden are completely destroyed.

As part of contingency and crisis management systems, R+V has initiated a range of measures to cope with business interruptions. However, the possibility cannot be ruled out that disruption to processes and workflows could be sustained over several days. Moreover, sensitive internal and external interfaces could be jeopardized by long-term business interruptions.

19.3.3. Legal risk

The matters mentioned in section 14.5.5. under 'Provisions recognized on the balance sheet' for the Bank sector essentially relate equally to the Insurance sector.

Legal disputes arising from the processing of insurance claims and benefit payments are covered by actuarial risk, not operational risk. In the year under review, no significant operational risks from non-actuarial legal disputes arose at R+V.

19.4. RISK POSITION

As at December 31, 2015, the **overall solvency requirement for operational risk** amounted to €452 million (December 31, 2014: €438 million). The **upper loss limit** applicable at the balance sheet date was set at €470 million (December 31, 2014: €510 million). The upper loss limit was not exceeded at any time during 2015.

20. ENTITIES IN OTHER FINANCIAL SECTORS

At R+V, the entities in other financial sectors mainly consist of pension funds and occupational pension schemes.

Risk is quantified in accordance with the requirements currently specified by the insurance regulator. This means applying the capital requirements in Solvency I, which are essentially calculated as a factor of the volume measures of benefit reserves and capital at risk.

R+V Pensionskasse AG is exposed to risks comparable with those faced by the life insurance entities in the R+V subgroup. In particular, the relevant activities within risk management apply as described in the sections on life actuarial risk, market risk, counterparty default risk, and operational risk.

The risk situation in a pension fund is determined to a significant degree by the nature of the pension plans offered. In pension plans offered by R+V involving defined contributions with a minimum benefit, it must be ensured that at least the sum of the contributions paid into the plan (net of any contributions covering biometric risk assumed by R+V) is available on the agreed pension start date.

R+V also offers pension plans that include guaranteed insurance-based occupational incapacity cover as well as pension benefits and benefits for surviving dependants. Market risk and all the risk types covered by actuarial risk are relevant as far as occupational pension provision is concerned. Longevity risk is also important in relation to pensions because of the guaranteed benefits involved. Here too, the relevant activities within risk management apply as described in the sections on life actuarial risk, market risk, counterparty default risk, and operational risk.

In the pension plans involving a benefit commitment without any insurance-based guarantees, R+V does not assume responsibility for any of the pension fund risk or investment risk because the first contributions paid in by the employer (thus initiating the contract) are subject to the proviso that the employer will also make up any difference required. This also applies to the period in which pensions are drawn. If an employer fails to make the payments of additional capital required, R+V's commitment is reduced to insurance-based guaranteed benefits as determined by the amount of capital still available. The ongoing pension plan contributions and the benefit reserve include sufficient amounts to cover the costs of managing pension fund contracts.

The **overall solvency requirement for entities in other financial sectors** was unchanged between December 31, 2014 and December 31, 2015 at €75 million. The **upper loss limit** was also unchanged year on year at €80 million. The upper loss limit was not exceeded at any point during 2015.

2015 ANNUAL FINANCIAL STATEMENTS OF DZ BANK AG

Balance sheet as at December 31, 2015

ASSETS

€ million	(Notes)				Dec. 31, 2015	Dec. 31, 2014
1. Cash and cash equivalents						
a) Cash on hand				132		177
b) Balances with central banks				1,834		1,197
of which: with Deutsche Bundesbank		1,771				(240)
					1,966	**1,374**
2. Debt instruments from public-sector entities and bills of exchange eligible for refinancing by central banks						
a) Treasury bills, non-interest-bearing treasury notes and similar debt instruments from public-sector entities				278		72
					278	**72**
3. Loans and advances to banks	(04, 06)					
a) Repayable on demand				7,515		8,076
b) Other loans and advances				73,804		72,640
					81,319	**80,716**
4. Loans and advances to customers	(04)				**22,647**	**22,443**
of which: secured by mortgages		99				(107)
local authority loans		680				(711)
5. Bonds and other fixed-income securities	(04, 12, 13, 15)					
a) Money market instruments				146		267
aa) from public-sector issuers			–			–
ab) from other issuers			146			267
b) Bonds				39,147		39,554
ba) from public-sector issuers			14,086			14,748
of which: eligible as collateral at Deutsche Bundesbank		13,688				(14,393)
bb) from other issuers			25,061			24,806
of which: eligible as collateral at Deutsche Bundesbank		12,698				(12,820)
c) Own bonds				82		–
Nominal value		81				(–)
					39,375	**39,821**
6. Shares and other variable-yield securities	(12, 13, 15)				**55**	**66**
6a. Trading assets	(14)				**39,192**	**45,540**
7. Long-term equity investments	(13, 15)				**363**	**403**
of which: in banks		204				(220)
8. Shares in affiliated companies	(13, 15)				**9,510**	**10,419**
of which: in banks		5,322				(6,037)
in financial services institutions		213				(253)
9. Trust assets	(08)				**1,047**	**1,110**
of which: trust loans		99				(128)
10. Intangible assets	(15)					
b) Purchased concessions, industrial and similar rights and assets, including licenses for such rights and assets				35		34
d) Payments in advance				10		12
					45	**46**
11. Property, plant and equipment	(15)				**363**	**191**
12. Other assets	(16)				**689**	**758**
13. Prepaid expenses and accrued income	(17)					
a) In connection with issuing and lending business				32		44
b) Other				11		7
					43	**51**
14. Deferred tax assets	(18)				**844**	**1,172**
15. Excess of plan assets over pension liabilities	(02)				**–**	**2**
Total assets					197,736	204,184

EQUITY AND LIABILITIES

€ million	(Notes)				Dec. 31, 2015	Dec. 31, 2014
1. Deposits from banks	(04, 06)					
a) Repayable on demand				29,192		24,273
b) With agreed maturity or notice period				62,337		61,115
					91,529	**85,388**
2. Deposits from customers	(04)					
b) Other deposits				17,985		22,855
ba) Repayable on demand			6,366			4,578
bb) With agreed maturity or notice period			11,619			18,277
					17,985	**22,855**
3. Debt certificates issued including bonds	(04)					
a) Bonds issued				24,471		30,144
b) Other debt certificates issued				14,502		8,872
of which: commercial paper		14,502				(8,872)
					38,973	**39,016**
3a. Trading liabilities	(14)				**29,167**	**37,028**
4. Trust liabilities	(08)				**1,047**	**1,110**
of which: trust loans		99				(128)
5. Other liabilities	(23)				**496**	**103**
6. Deferred income and accrued expenses	(17)					
a) In connection with issuing and lending business				55		59
b) Other				1		2
					56	**61**
7. Provisions	(02, 04, 24)					
a) Provisions for pensions and other post-employment benefits				174		46
b) Provisions for taxes				166		147
c) Other provisions				594		632
					934	**825**
8. Subordinated liabilities	(04, 25)				**5,564**	**5,262**
9. Profit-sharing rights	(04, 26)				**292**	**292**
of which: maturing within two years		18				(18)
10. Fund for general banking risks	(02)				**3,685**	**4,250**
of which: special item in accordance with section 340e(4) HGB		209				(209)
11. Equity	(20)					
a) Subscribed capital				3,646		3,646
b) Capital reserve				2,369		2,369
c) Revenue reserves				1,766		1,766
ca) Statutory reserve			105			105
cd) Other revenue reserves			1,661			1,661
d) Distributable profit				227		213
					8,008	**7,994**
Total equity and liabilities					**197,736**	**204,184**

1. Contingent liabilities	(45)					
b) Liabilities under guarantees and indemnity agreements*				6,264		5,406
					6,264	**5,406**
2. Other obligations	(38, 45)					
c) Irrevocable loan commitments				16,478		17,223
					16,478	**17,223**

* See also details under 'Other disclosures' in Notes 39 and 40.

Income statement for the period January 1 to December 31, 2015

€ million	(Notes)				2015	2014
1. Interest income from						
a) Lending and money market business			1,753			2,126
of which: negative interest rates on financial assets	(02)	6				(0)
b) Fixed-income securities and book-entry securities			828			775
of which: negative interest rates on financial assets	(02)	–				(–)
				2,581		2,901
2. Interest expense				2,155		2,563
					426	**338**
of which: positive interest rates on financial liabilities	(02)	19				(3)
expenses incurred by the unwinding of discounts on provisions		3				(3)
3. Current income from						
a) Shares and other variable-yield securities				1		21
b) Long-term equity investments				145		12
c) Shares in affiliated companies				266		227
					412	**260**
4. Income from profit-pooling, profit-transfer and partial profit-transfer agreements					**350**	**252**
5. Fee and commission income	(32)			581		554
6. Fee and commission expenses	(32)			293		278
					288	**276**
7. Net trading income					**233**	**380**
of which: amounts added in accordance with section 340e (4) HGB	(02)	–				(41)
income from the discounting of provisions		–				(–)
expenses incurred by the unwinding of discounts on provisions		3				(1)
8. Other operating income	(34)				**102**	**98**
of which: income from the discounting of provisions		0				(0)
9. General and administrative expenses						
a) Staff expenses				500		495
aa) Wages and salaries			439			426
ab) Social security, post-employment and other employee benefit expenses			61			69
of which: post-employment benefit expenses		10				(19)
b) Other administrative expenses				538		407
					1,038	**902**

€ million	(Notes)				2015	2014
10. Amortization and write-downs on intangible assets, and depreciation and write-downs on property, plant and equipment					**40**	41
11. Other operating expenses	(34)				**219**	88
of which: expenses incurred by the unwinding of discounts on provisions		139				(20)
12. Write-downs on and allowances for losses on loans and advances and certain securities, and additions to provisions for losses on loans and advances					**–**	55
13. Income from the reversal of write-downs on loans and advances and certain securities, and from the reversal of provisions for losses on loans and advances					**46**	–
14. Write-downs on and allowances for long-term equity investments, shares in affiliated companies, and securities treated as fixed assets					**491**	–
15. Income from the reversal of write-downs on long-term equity investments, shares in affiliated companies, and securities treated as fixed assets					**–**	50
16. Income from reversal of the fund for general banking risks	(02)				**565**	–
17. Expenses from the transfer of losses					**60**	236
18. Result from ordinary activities					**574**	332
19. Extraordinary income	(35)				**1**	37
20. Extraordinary expenses	(35)				**14**	11
21. Extraordinary result					**-13**	26
22. Income taxes	(36)			336		145
of which: from deferred taxes		328				(144)
23. Other taxes not included under 'Other operating expenses'				1		0
					337	145
24. Net income for the year	(37)				**224**	213
25. Profit brought forward from 2014					**3**	0
26. Distributable profit					**227**	213

NOTES

A. General disclosures

» 01
BASIS OF PREPARATION

The annual financial statements of DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main, (DZ BANK) for the year ended December 31, 2015 have been prepared in accordance with the requirements of the German Commercial Code (HGB) and the Statutory Order on the Accounts of Banks and Financial Services Institutions (RechKredV). At the same time, the annual financial statements comply with the provisions of the German Stock Corporation Act (AktG), the DG BANK Transformation Act, and the Articles of Association of DZ BANK.

DZ BANK has made use of available options to include disclosures in the notes to the financial statements rather than on the balance sheet and income statement. Unless stated otherwise, all amounts are shown in millions of euros (€ million). All figures are rounded to the nearest whole number. This may result in very small discrepancies in the calculation of totals and percentages.

The accounting policies applied in 2015 were essentially the same as those used in 2014. Any changes compared with 2014 are set forth in Note 02 'Accounting policies' and 03 'Currency translation'.

» 02
ACCOUNTING POLICIES

LOANS AND ADVANCES TO BANKS AND CUSTOMERS

Loans and advances to banks and customers are carried at their principal amounts or at cost. The difference between the principal amount and the amount disbursed is recognized under deferred income and apportioned pro rata over the term of the loan. Promissory notes, registered bonds, and lease receivables acquired from third parties are recognized at cost.

Loans and advances, which are classified as current assets, are measured strictly at the lower of cost and market. The carrying amount for loans and advances to banks and customers includes promissory notes, registered bonds, and lease receivables assigned to the banking book and for which the bank has entered into interest-rate hedges as part of its overall risk management.

Provisions for lending risks comprise valuation allowances and provisions for credit risk and latent credit risk for all portfolios of loans and advances on the balance sheet and off-balance-sheet transactions at individual transaction level and/or on a portfolio basis. Based on specific measurement of each risk, provisions are recognized for all identifiable credit risks in the amount of the expected loss as dictated by prudent business practice. Latent credit risk is recognized in the form of portfolio loan loss allowances. The calculation of the portfolio loan loss allowance is based on the method for calculation of expected losses used for regulatory purposes. Other measurement factors are determined on the basis of internal parameters. DZ BANK also recognizes allowances for general banking risks as permitted by section 340f HGB.

BONDS AND OTHER FIXED-INCOME SECURITIES, AND SHARES AND OTHER VARIABLE-YIELD SECURITIES

These line items on the balance sheet comprise long-term securities and securities in the liquidity reserve. Securities in the liquidity reserve are measured strictly in accordance with the principle of lower of cost and market. Long-term securities that are permanently impaired are written down to the lower of cost and market. In 2015, as in the previous year, temporarily impaired long-term securities were optionally measured at the lower of cost and market or their carrying amount was retained in accordance with section 340e (1) HGB. Under the item 'Bonds and other fixed-income securities', the carrying amount of marketable securities not measured at the lower of cost and market was €3,910 million. For further information on the impact on net assets, financial position, and results of operations, please refer to Note 15 'Changes in intangible assets and in property, plant and equipment, and investments'.

The fair value of securities is largely determined by reference to current market prices or by using generally accepted valuation methods on the basis of parameters that are broadly observable in the market, such as yield curves, spreads, volatility, or exchange rates. If specific parameters relevant to the measurement cannot be observed or cannot be determined directly from market data, the bank's own internal estimated parameters are used.

DZ BANK individually measures securities that are held either as long-term investments or in the liquidity reserve.

Premiums and discounts on the fixed-income securities in the banking book are recognized in accordance with the effective interest method. This resulted in interest expense of €104 million in 2015.

Dividend income from shares and other variable-yield securities that are held either as long-term investments or in the liquidity reserve is reported as current income from shares and other variable-yield securities.

TRADING ASSETS AND TRADING LIABILITIES

Trading assets and trading liabilities comprise bonds and other fixed-income securities, shares and other variable-yield securities, promissory notes, registered bonds, sale and repurchase agreements, and derivatives (interest-rate, currency, credit, and equity derivatives). DZ BANK reports its own structured issues of credit-linked notes and share certificates – because they are held for trading purposes – as trading liabilities in accordance with the criteria specified in accounting guidance statement 2 issued by the banking committee of the Institut der Wirtschaftsprüfer in Deutschland e.V. (IDW) [Institute of Public Auditors in Germany].

Over-the-counter (OTC) derivatives held for trading purposes, for which variation margins have been agreed on the basis of bilateral master agreements in the Collateralization Annex and for which the variation margins have been paid daily, are netted and shown on the balance sheet on a net basis. For each master agreement, the netting covers the fair values of the OTC derivatives and the variation margin. As at December 31, 2015, this netting reduced loans and advances to banks by €5,067 million, loans and advances to customers by €32 million, the carrying amount of trading assets by €14,018 million, deposits from banks by €2,146 million, deposits from customers by €181 million, and the carrying amount of trading liabilities by €16,790 million. The amounts are presented on a gross basis in Note 27 'List of derivatives recognized at fair value by product area' and in Note 28 'List of derivatives recognized at fair value by counterparty structure'.

The fair values of OTC interest-rate derivatives that are traded through a central counterparty have also been netted with the carrying amounts of the underlying derivatives positions contained in the trading assets and trading liabilities line items on the balance sheet. As at December 31, 2015, this netting reduced the carrying amount of trading assets by €5,650 million, the carrying amount of other assets by €1,366 million, and the carrying amount of trading liabilities by €7,016 million. As part of the clearing service for our customers, the fair values of OTC interest-rate derivatives that are traded through a central counterparty are recognized and netted with the carrying amounts of the underlying derivatives positions contained in the trading assets and trading liabilities line items on the balance sheet.

Financial instruments held for trading purposes are measured at their fair value in accordance with section 340e (3) HGB in conjunction with section 255 (4) HGB, minus any risk premiums or adjustments. To ensure that the income statement only includes unrealized gains from positions that are substantially closed, a risk adjustment is applied to the net gains and losses. This adjustment comprises a value-at-risk adjustment, a mathematical calculation that describes the maximum potential loss that is considered to be highly probable. An internal model is used to calculate the value-at-risk adjustment based on regulatory requirements. It applies the 10-day value-at-risk adjustment required by the regulator. The calculation of the value-at-risk adjustment was based on an observation period of 250 trading days and a confidence level of 99 percent. The value-at-risk adjustment amounted to €18 million.

Where markets are inactive, generally accepted valuation methods are used to determine fair value. When measuring its structured products, DZ BANK uses models that are based on certain distribution assumptions and/or smile modeling. Fair value is determined on the basis of parameters that are broadly observable in the market; only in justified exceptional cases is it determined using parameters that are not observable in the market. In order to determine fair value reliably, measurement adjustments are also made for uncertain measurements.

Fair value gains and losses, current interest payments and dividend income from securities held for trading purposes, current payments arising from derivatives and from sale and repurchase agreements and securities lending transactions entered into for trading purposes, promissory notes and other receivables, foreign exchange, and precious metals – including the corresponding deferrals – are all recognized as part of the net trading result. In addition, the funding costs attributable to trading assets and trading liabilities in the form of internal fixed-term deposits and imputed overnight rates are also reported as part of the net trading result.

SECURITIES LENDING

For securities involved in securities lending transactions, the accounting treatment of securities lending is the same as the accounting treatment for genuine sale and repurchase agreements (i.e. agreements in which the buyer is under an obligation to sell back the securities) in accordance with section 340b HGB. The securities remain on the balance sheet. Borrowed securities are not recognized on the balance sheet.

LONG-TERM EQUITY INVESTMENTS AND SHARES IN AFFILIATED COMPANIES

Long-term equity investments and shares in affiliated companies are measured at amortized cost or, if expected to be permanently impaired, at the lower of cost and fair value. If the reasons for a previous write-down no longer exist, the write-down is reversed so that the asset is measured at fair value. However, the reversal must not result in a carrying amount higher than the original cost.

PROPERTY, PLANT AND EQUIPMENT, AND INTANGIBLE ASSETS

Property, plant and equipment is measured at cost and reduced by depreciation over its estimated useful life. Useful life is based on the depreciation tables published by the German tax authorities.

Low-value assets with an individual net value of up to €150 are written off in full in the year of acquisition and expensed. In the case of assets with an individual net value between €150 and €1,000, the aggregate item that needs to be recognized on an annual basis for tax purposes has been included in the HGB financial statements to simplify matters. In accordance with tax rules, annual aggregate items with overall carrying amounts that are not material are depreciated at a flat rate of 20 percent in the year of recognition and then in each of the 4 subsequent years.

Office furniture and equipment including operating equipment is depreciated on a straight-line basis.

Assets are written down if they are considered to be impaired on a permanent basis. If the reasons for a previous write-down no longer exist, the write-down is reversed.

Intangible fixed assets are measured at cost and amortized on a straight-line basis. A useful life in the range of 3 to 10 years is used as the basis for the amortization.

LIABILITIES

Liabilities are carried at the settlement amount. The difference between the notional amount and the amount disbursed is recognized under prepaid expenses and apportioned pro rata over the term of the loan.

ADDITIONAL REGULATORY TIER 1 CAPITAL INSTRUMENTS

Owing to their structure, the additional Tier 1 instruments (AT1 bonds) that have been issued are classified as debt. They are recognized at their settlement value under the subordinated liabilities line item on the balance sheet. The interest cost is accrued on the basis of the expected interest payments to the bond holders. The accrued interest is also recognized under the subordinated liabilities line item on the balance sheet.

PROVISIONS

Pension obligations are calculated in accordance with actuarial principles. Their computation is based on the projected unit credit method. The discount rate used was forecast on the basis of the interest rate published by Deutsche Bundesbank as at November 30, 2015. It corresponds to the average market interest rate over the past 7 years as at December 31, 2015 (3.89 percent) for a residual maturity of 15 years. In Germany, the biometric tables used in these calculations are the 2005 G mortality tables published by Professor Dr. Klaus Heubeck, Cologne. Measurement is based on anticipated annual rates of increase of 1.8 percent for salaries and 1.75 percent for pensions. In order to provide cover for its pension obligations, DZ BANK has transferred assets to DZ BANK Pension Trust e.V., Frankfurt am Main, which acts as a trustee on behalf of the pension beneficiaries. The valuation of pension obligations outside Germany is based on the applicable country-specific biometric factors and parameters. Pension plans and the bank's early-retirement obligations gave rise to provisions for pensions and other post-employment benefits of €174 million.

DZ BANK recognizes provisions for current taxes in accordance with German tax law.

It recognizes its other provisions at the amounts needed to settle contingent liabilities and/or anticipated losses as dictated by prudent business practice.

Provisions that are recognized for more than one year are discounted at the average market interest rate for the past 7 years, which corresponds to their residual maturity and is calculated and published by Deutsche Bundesbank.

Income from the discounting of provisions for banking business and expenses incurred by the unwinding of discounts on such provisions are reported as interest income and interest expenses respectively. If the provisions are related to trading activities, the income resulting from discounting and expenses incurred by the unwinding of discounts are shown in the net trading result. Income from the discounting of residual provisions and expenses incurred by the unwinding of discounts on such provisions are reported as other operating income and other operating expenses respectively.

INTEREST-LINKED CONTRACTS OF THE BANKING BOOK

In accordance with the principles of write-downs to anticipate identifiable expected losses, evidence was provided for all on-balance-sheet and off-balance-sheet interest-linked financial instruments of the banking book to show that no losses will be incurred on contracted interest-linked items in the future. This was done using the present value/carrying amount method. In this method, the carrying amounts of the interest-bearing transactions of the banking book are offset against the interest-rate-related present values, taking account of the associated costs of managing the risk and the portfolio. Any remaining shortfall after offsetting would require a corresponding provision to be recognized. As at December 31, 2015, there was no need to recognize a provision for anticipated losses pursuant to section 340a HGB in conjunction with section 249 (1) sentence 1 HGB.

MISCELLANEOUS

Expenses in connection with investments are offset against investment income in accordance with section 33 RechKredV in conjunction with section 340c (2) HGB. Fair value gains and losses on the measurement of loans and advances and the securities in the liquidity reserve are reported as a net figure in accordance with section 32 RechKredV in conjunction with section 340f (3) HGB.

In the income statement, the negative interest rates on financial assets and the positive interest rates on financial liabilities are shown for comparison purposes in the prior-year 'of which' figures for interest income and interest expense respectively. In 2014, these had been recognized under fee and commission income and expenses. The prior-year total figures for interest income and interest expense shown are the same as those reported in the 2014 annual financial statements.

The fund for general banking risks amounted to €3,685 million as at December 31, 2015 (December 31, 2014: €4,250 million). This fund for general banking risks includes a special item in accordance with section 340e (4) HGB. The reserves pursuant to section 340e HGB were unchanged year on year. The reversal of reserves pursuant to section 340g HGB resulted in income of €565 million.

The methods used to recognize and measure internal transactions are the same as those applied to external transactions. These transactions are shown as netted amounts in the respective line items on the balance sheet.

Using the option to recognize deferred tax assets provided for in section 274 (1) sentence 2 HGB, the bank recognized the excess of deferred tax assets after they had been offset against deferred tax liabilities, applying a standard tax rate of 31.12 percent for the purposes of trade tax and corporation tax (including the solidarity surcharge). The carrying amounts also included the deferred taxes from measurement differences at subsidiaries that form a tax group with the bank. Overall, this resulted in an excess of deferred tax assets recognized on DZ BANK's balance sheet, the bulk of which is attributable to subsidiaries. For its measurement of the excess of deferred tax assets, the bank assumes that the profit-and-loss transfer agreements with its subsidiaries will continue and bases its income planning on a five-year planning horizon. In accordance with IAS 12.29(a), when calculating the expected future tax benefits from the measurement differences in existence at the balance sheet date, only those measurement differences are recognized that are likely to disappear again in this period and will not be replaced with new measurement differences. The calculation of deferred tax assets takes account of tax loss carryforwards in the amount of the losses expected to be offset within the next 5 years.

» 03 CURRENCY TRANSLATION

Assets and liabilities denominated in foreign currencies as well as claims and delivery obligations under currency transactions are translated in compliance with section 256a HGB in conjunction with section 340h HGB. This legislation requires that foreign currencies be translated at the middle spot exchange rate on the balance sheet date.

All currency exposures arising in connection with trading assets and trading liabilities are recognized and measured in accordance with the rules governing trading assets and trading liabilities. The corresponding exchange gains and losses on foreign-currency transactions designated as trading assets and trading liabilities are reported as net trading income on the income statement.

Under the strategy for managing currency risk, DZ BANK's foreign currency exposures and foreign-currency transactions are deemed to be specifically covered in the same currency. Assets are deemed to be specifically covered in the same currency if they are matched by liability items, forward transactions, or options. The excess fair value measurement of these derivatives is reported as an offsetting item for currency translation under 'Other liabilities'. In 2015, the fair value gains and losses on non-trading transactions that are specifically covered in the same currency were shown on a net basis at €6 million under other operating income for the first time. Where DZ BANK has entered into currency swaps in connection with the hedging of interest-bearing balance sheet items, the swap income and expenses were treated as interest income and expense in 2015, reflecting the nature of the income and expense involved. This resulted in interest income of €114 million in 2015. Previously, these income and expense components had been recognized under net trading income.

Measurement in respect of transactions and exposures that are not specifically covered in the same currency is based on the HGB imparity principle, i.e. unrealized losses are recognized, but any unrealized gains are not recognized. The resulting fair value gains and losses are reported as other operating expenses.

B. Balance sheet disclosures

ASSET ITEMS

» 04 MATURITY STRUCTURE

€ million	Dec. 31, 2015	Dec. 31, 2014
Other loans and advances to banks	**73,804**	**72,640**
– up to 3 months	7,877	8,244
– between 3 months and 1 year	8,383	8,513
– between 1 year and 5 years	30,759	29,392
– more than 5 years	26,785	26,491
Loans and advances to customers	**22,647**	**22,443**
– up to 3 months	5,109	4,941
– between 3 months and 1 year	2,291	2,111
– between 1 year and 5 years	8,580	8,763
– more than 5 years	5,219	4,944
– no fixed maturity	1,448	1,684
Bonds and other fixed-income securities	**39,375**	**39,821**
– up to 3 months (maturing in subsequent year)	2,068	1,630
– between 3 months and 1 year (maturing in subsequent year)	4,557	3,670
– between 1 year and 5 years	19,372	19,319
– more than 5 years	13,378	15,202

LIABILITY ITEMS

€ million	Dec. 31, 2015	Dec. 31, 2014
Deposits from banks with agreed maturity or notice period	**62,337**	**61,115**
– up to 3 months	14,106	11,627
– between 3 months and 1 year	5,290	6,492
– between 1 year and 5 years	18,908	18,876
– more than 5 years	24,033	24,120
Deposits from customers		
Other deposits with agreed maturity or notice period	**11,619**	**18,277**
– up to 3 months	4,091	9,215
– between 3 months and 1 year	611	1,696
– between 1 year and 5 years	1,283	1,277
– more than 5 years	5,634	6,089
Debt certificates issued including bonds		
Bonds issued	**24,471**	**30,144**
– of which: maturing in subsequent year	8,237	10,456
Other debt certificates issued	**14,502**	**8,872**
– up to 3 months	11,628	7,542
– between 3 months and 1 year	2,874	1,330
Provisions	**934**	**825**
– up to 3 months	103	88
– between 3 months and 1 year	299	294
– between 1 year and 5 years	99	176
– more than 5 years	433	267
Subordinated liabilities	**5,564**	**5,262**
– up to 3 months	259	183
– between 3 months and 1 year	12	136
– between 1 year and 5 years	2,037	1,902
– more than 5 years	3,256	3,041
Profit-sharing rights	**292**	**292**
– up to 3 months	18	18
– between 3 months and 1 year	–	–
– between 1 year and 5 years	274	211
– more than 5 years	–	63

» 05 AFFILIATED COMPANIES AND OTHER LONG-TERM INVESTEES AND INVESTORS

Loans and advances to and deposits from affiliated companies:

€ million	Dec. 31, 2015	Dec. 31, 2014
Loans and advances to banks	21,382	23,237
Loans and advances to customers	4,602	4,931
Bonds and other fixed-income securities	10,657	11,057
Deposits from banks	7,086	6,959
Deposits from customers	1,299	1,491
Debt certificates issued including bonds	1,233	453
Subordinated liabilities	1,418	2,184

Loans and advances to and deposits from other long-term investees and investors:

€ million	Dec. 31, 2015	Dec. 31, 2014
Loans and advances to banks	37,890	38,294
Loans and advances to customers	417	299
Bonds and other fixed-income securities	2,552	1,988
Deposits from banks	33,959	25,864
Deposits from customers	260	293
Debt certificates issued including bonds	14,963	20,883
Subordinated liabilities	854	223

The list of shareholdings compiled in accordance with section 285 no. 11 HGB is shown in Note 51.

» 06 LOANS AND ADVANCES TO AND DEPOSITS FROM AFFILIATED BANKS

Loans and advances to and deposits from banks include the following amounts:

€ million	Dec. 31, 2015	Dec. 31, 2014
Loans and advances to affiliated banks	**52,415**	**49,301**
of which: to cooperative central institutions	250	57
Deposits from affiliated banks	**38,974**	**32,157**
of which: from cooperative central institutions	36	6

» 07 SUBORDINATED ASSETS

The following balance sheet items include subordinated assets in the amounts stated:

€ million	Dec. 31, 2015	Dec. 31, 2014
Loans and advances to banks	**1,313**	**1,549**
of which: to affiliated companies	1,273	1,495
to investees	–	0
Loans and advances to customers	**57**	**73**
Bonds and other fixed-income securities	**361**	**337**
of which: to affiliated companies	179	161
Shares and other variable-yield securities	**2**	**20**
Trading assets	**358**	**520**
of which: to affiliated companies	21	20
to investees	6	1
Total	**2,606**	**2,499**

» 08 TRUST ACTIVITIES

Total trust assets and trust liabilities are broken down as follows:

€ million	Dec. 31, 2015	Dec. 31, 2014
Trust assets		
Loans and advances to banks	98	120
Loans and advances to customers	1	8
Long-term equity investments	948	982
Total	**1,047**	**1,110**

€ million	Dec. 31, 2015	Dec. 31, 2014
Trust liabilities		
Deposits from banks	99	123
Deposits from customers	948	987
Total	**1,047**	**1,110**

» 09 FOREIGN CURRENCY

Assets and liabilities denominated in foreign currency are as follows:

€ million	Dec. 31, 2015	Dec. 31, 2014
Assets	20,617	22,940
Liabilities	28,266	25,026

» 10 SALE AND REPURCHASE AGREEMENTS

The carrying amount of assets subject to sale and repurchase agreements as at December 31, 2015 was €5,128 million (December 31, 2014: €8,935 million).

» 11 ASSETS ASSIGNED AS COLLATERAL

The following table lists liabilities for which assets in the amount shown have been pledged as collateral:

€ million	Dec. 31, 2015	Dec. 31, 2014
Deposits from banks	34,074	33,775
Debt certificates issued including bonds	508	–
Trading liabilities	5,140	9,010
Total	**39,722**	**42,785**

The amount pledged as collateral for exchange-traded forward transactions and in connection with collateral agreements as part of OTC trading business was €11,308 million (December 31, 2014: €11,389 million).

» 12 STRUCTURE OF SECURITIES PORTFOLIO BY PURPOSE

The table below shows the breakdown of the securities portfolio by purpose:

€ million	Dec. 31, 2015	Dec. 31, 2014
Bonds and other fixed-income securities		
Fixed assets	39,203	39,718
Liquidity reserve	172	103
Total	**39,375**	**39,821**

€ million	Dec. 31, 2015	Dec. 31, 2014
Shares and other variable-yield securities		
Fixed assets	38	49
Liquidity reserve	17	17
Total	**55**	**66**

» 13 MARKETABLE SECURITIES

The following asset items include marketable securities in the amounts shown:

€ million	Dec. 31, 2015	Dec. 31, 2014
Bonds and other fixed-income securities	**39,375**	**39,821**
of which: listed on a stock exchange	34,153	34,350
Shares and other variable-yield securities	**11**	**29**
of which: listed on a stock exchange	11	11
Long-term equity investments	**0**	**0**
of which: listed on a stock exchange	0	0
Shares in affiliated companies	**3,304**	**3,151**
of which: listed on a stock exchange	537	536

» 14 TRADING ASSETS AND TRADING LIABILITIES

The table below shows a breakdown of trading assets and trading liabilities:

€ million	Dec. 31, 2015	Dec. 31, 2014
Trading assets		
Derivatives	9,562	16,104
Loans and advances to banks	12,768	12,991
Loans and advances to customers	3,705	1,773
Bonds and other fixed-income securities	12,474	14,324
of which: own bonds	(1,240)	(1,561)
Shares and other variable-yield securities	1,010	705
Other (risk adjustments)	-327	-357
Total	**39,192**	**45,540**

€ million	Dec. 31, 2015	Dec. 31, 2014
Trading liabilities		
Derivatives	6,749	10,736
Deposits from banks	6,647	8,926
Deposits from customers	503	2,163
Debt certificates issued including bonds	15,268	15,203
Total	**29,167**	**37,028**

The changes in fixed assets were as follows:

» 15
CHANGES IN INTANGIBLE ASSETS AND IN PROPERTY, PLANT AND EQUIPMENT, AND INVESTMENTS

INTANGIBLE ASSETS, AND PROPERTY, PLANT AND EQUIPMENT

	Cost				Reversals of write-downs	Depreciation/ amortization and write-downs		Net carrying amount	
€ million	Jan. 1, 2015	Additions	Disposals	Reclassifi-cations		Current year	Cumula-tive	Dec. 31, 2015	Dec. 31, 2014
Intangible assets	343	25	4	0	–	26	319	**45**	46
Land and buildings	159	173	–	–	–	2	25	**307**	136
of which: used for own operations	(159)	(1)	(–)	(–)	(–)	(2)	(25)	(135)	(136)
Office furniture and equipment	211	14	50	1	–	12	120	**56**	54
Payments in advance on property, plant and equipment	1	0	–	-1	–	–	–	**0**	1
Total	714	212	54	–	–	40	464	**408**	237

INVESTMENTS

	Change	Carrying amount	
€ million		Dec. 31, 2015	Dec. 31, 2014
Bonds and other fixed-income securities	-515	39,203	39,718
Shares and other variable-yield securities	-11	38	49
Long-term equity investments	-40	363	403
Shares in affiliated companies	-909	9,510	10,419
Total	**-1,475**	**49,114**	**50,589**

The fair value of financial instruments reported under investments and reported at a carrying amount exceeding their fair value because write-downs have not been recognized in accordance with section 253 (3) sentence 4 HGB was €3,752 million (carrying amount: €3,910 million) for bonds and other fixed-income securities. Internal analyses of long-term securities revealed that none were expected to be permanently impaired. Since the impairment of these securities was only temporary, the securities were not written down to fair value. In the case of asset-backed securities (ABSs), DZ BANK carried out detailed cash flow analyses related to the receivables in the securitization pool taking into account the waterfall structure of each ABS tranche.

» 16 OTHER ASSETS

Other assets largely include tax credits of €370 million (December 31, 2014: €363 million) and variation margin payments arising from interest-rate derivatives and repos of €260 million (December 31, 2014: €160 million).

» 17 PREPAID EXPENSES/ACCRUED INCOME AND DEFERRED INCOME/ACCRUED EXPENSES

€ million	Dec. 31, 2015	Dec. 31, 2014
Prepaid expenses/accrued income		
Discount on deposits	32	44
Other prepaid expenses/accrued income	11	7
Total	**43**	**51**

€ million	Dec. 31, 2015	Dec. 31, 2014
Deferred income/accrued expenses		
Discount on loans and advances	14	12
Premium on bonds issued	41	47
Other deferred income/accrued expenses	1	2
Total	**56**	**61**

» 18 DEFERRED TAX ASSETS

This line item included deferred tax assets in accordance with section 274 HGB amounting to €844 million as at December 31, 2015 (December 31, 2014: €1,172 million). Deferred tax assets were recognized primarily in respect of temporary balance sheet differences and in respect of the fund for home savings risk recognized by Bausparkasse Schwäbisch Hall AG, Schwäbisch Hall. Deferred taxes are measured using the national and entity-specific tax rates expected to apply at the time of realization. The income tax group was subject to a standard tax rate of 31.12 percent (trade tax of 15.295 percent and corporation tax/solidarity surcharge of 15.825 percent). Deferred taxes at branches outside Germany were measured at the statutory rates applicable in the countries concerned, which vary between 20.00 percent and 38.93 percent.

» 19 NETTING OF ASSETS AND LIABILITIES

The table below shows the cost and the fair value of netted assets that are protected from the claims of all other creditors and are used solely to settle liabilities arising from pension obligations; it also shows the amount needed to settle these netted liabilities. It also shows the pertinent netted income and expenses resulting from discounting and from the netted assets.

€ million	Dec. 31, 2015	Dec. 31, 2014
Cost of netted assets	707	742
Fair value of netted assets	751	802
Amount needed to settle the netted liabilities	897	830
Netted expenses	151	76
Netted income	19	63

The offsetting of pension obligations against individual plan assets plus the pension obligations for unfunded pension plans of €25 million resulted in total provisions for pension of €171 million.

» 20 CHANGES IN EQUITY

The subscribed capital of DZ BANK consists of 1,402,410,350 registered non-par-value shares each with an imputed value of €2.60. All shares in issue are fully paid-up.

The changes in equity were as follows:

€ million	Jan. 1, 2015	Additions/ (-) Withdrawals	Dec. 31, 2015
Subscribed capital	3,646	–	**3,646**
Capital reserve	2,369	–	**2,369**
Revenue reserves	1,766	–	**1,766**
Statutory reserve	105	–	105
Other revenue reserves	1,661	–	1,661
Distributable profit	213	14	**227**
Dividend	210	-210	–
Profit carried forward	3	–	3
Net income for 2015	–	224	224
Total equity	7,994	14	**8,008**

The Board of Managing Directors is authorized, subject to the approval of the Supervisory Board, to increase the share capital by June 30, 2019 on one or more occasions by up to a total of €100 million by way of issuing new registered non-par-value shares in return for cash or non-cash contributions. The Board of Managing Directors is authorized, subject to the approval of the Supervisory Board, to exclude the subscription right of shareholders both in the case of capital increases in return for non-cash contributions and in the case of capital increases in return for cash contributions if the capital is increased for the purpose of

a) issuing new shares to employees of the company (employee shares),

b) issuing new shares to one or more cooperative banks which, measured in terms of their total assets, directly or indirectly have a below-average stake in the company's share capital, i.e. less than 0.44 percent of their total assets (using the nominal value of €2.60 per DZ BANK share),

c) acquiring companies, equity investments in companies or for granting equity investments in the corporation in order to back strategic partnerships.

The Board of Managing Directors is also authorized, subject to the approval of the Supervisory Board, to exclude fractions from the subscription right of shareholders ('Authorized Capital I').

The Board of Managing Directors is authorized, subject to the approval of the Supervisory Board, to increase the share capital by June 30, 2019 on one or more occasions by up to a total of €150 million by issuing new registered non-par-value shares in return for cash contributions. The Board of Managing Directors is authorized, subject to the approval of the Supervisory Board, to exclude fractions from the subscription right of shareholders ('Authorized Capital II').

The Board of Managing Directors did not make use of any of this authorized action in 2015.

» 21 AMOUNTS NOT ALLOWED TO BE DISTRIBUTED AS DIVIDENDS

The table below gives a breakdown of the total amount that is not allowed to be distributed as a dividend pursuant to section 268 (8) HGB:

€ million	Dec. 31, 2015	Dec. 31, 2014
Recognition of deferred taxes	844	1,172
Recognition of assets at fair value	44	60

The total amounts of €888 million that were not allowed to be distributed as dividends were more than offset by readily available revenue reserves of €1,661 million. Consequently, the distributable profit of €227 million was not prohibited from being paid out as a dividend.

» 22 DISCLOSURES ON SHAREHOLDERS

At the end of 2015, 99.5 percent of DZ BANK's share capital was held by cooperative enterprises. These cooperative enterprises include the cooperative banks, the cooperative central institutions, and other legal entities and trading companies economically associated with the cooperative movement or cooperative housing sector.

» 23 OTHER LIABILITIES

Other liabilities include, in particular, currency translation liabilities of €264 million (December 31, 2014: –) and variation margins received arising from derivatives and repos of €145 million (December 31, 2014: –).

» 24
CHANGES IN TAX PROVISIONS AND OTHER PROVISIONS

The table below shows the changes in tax provisions and other provisions:

CHANGES IN PROVISIONS

€ million	Jan. 1, 2015	Additions	Utilizations	Reversals	Reclassifications	Changes in exchange rates	Changes resulting from discounts and unwinding of discounts	**Dec. 31, 2015**
Provisions for taxes	147	79	14	50	0	4	–	166
Other provisions	632	278	193	140	-1	5	13	594

Provided that the necessary conditions were met, provisions for corporation tax were netted with entitlements to reimbursement of creditable tax.

» 25
SUBORDINATED LIABILITIES

There are no early redemption obligations in respect of the subordinated capital. In the event of insolvency or liquidation, all rights in connection with these liabilities, including rights to interest, are subordinated to the claims of all non-subordinated creditors.

The subordinated liabilities carried an average interest rate of 2.70 percent (2014: 3.85 percent) and had initial maturities of between 5 and 30 years.

Subordinated liabilities are issued in the form of fixed-income and variable-yield securities, promissory notes, and registered bonds.

The interest expense for the liabilities reported under this item amounted to €177 million in 2015 (2014: €202 million).

Accrued interest not yet due for payment amounting to €69 million (December 31, 2014: €83 million) is included within the subordinated liabilities balance sheet item.

To strengthen its regulatory Tier 1 capital, DZ BANK issued AT1 bonds with a total nominal value of €750 million on November 11, 2015. The AT1 bonds are split into four types depending on their interest-rate arrangements (types A to D, with type A having two tranches and the other types each having one tranche) and establish unsecured subordinated liabilities that meet the requirements in the Capital Requirements Regulation (CRR).

The bearer bonds are bound by the terms and conditions in the information memorandum, which include an indefinite term to maturity and a unilateral right of cancellation for the issuer. As a result, DZ BANK may terminate each tranche of the bond in its entirety, but not parts thereof, as it chooses, either at the first possible maturity date (August 1, 2021/August 1, 2026) or thereafter at any interest payment date. Furthermore, the issuer may exercise its right of cancellation prematurely if certain regulatory or tax reasons arise. In any case, cancellation requires the consent of the regulator.

In the event of cancellation, AT1 bonds are repaid at their nominal value. In some circumstances, the repayment amount may be lower than the original nominal value if the value had been written down due to a triggering event and the write-down had not subsequently been reversed in full. Such a triggering event occurs if the common equity Tier 1 capital ratio of both DZ BANK and the DZ BANK Group falls below 7.00 percent. Under certain conditions, the write-downs on the instruments may be reversed to the full original nominal value in subsequent financial years.

Depending on their type, the AT1 bonds have an annual floating or fixed interest rate from the day of issue until August 1, 2021/August 1, 2026. In subsequent periods, the interest rate will be reset on the basis of 12-month Euribor/the five-year euro mid-swap rate plus a margin.

Interest payments are generally at the discretion of the issuer. They may be canceled, either wholly or in part, depending on the items eligible for distribution or by order of the responsible regulator. Interest payments are not cumulative; canceled or reduced payments will not be made up in subsequent periods.

The accrued (not yet due) interest for the AT1 bonds amounted to €5 million as at December 31, 2015.

» 26 PROFIT-SHARING RIGHTS

Profit-sharing rights also incur a share of losses of up to their full amount. Interest payments are subject to the availability of distributable profit. Claims by holders of profit-sharing rights to the repayment of the capital are subordinated to the claims of other creditors. DZ BANK has issued the following bearer profit-sharing rights:

Year of issue	Nominal amount	Coupon	Maturity
	€ million	%	
2008	139	7.40	2018
2008	72	3.83[1]	2018

1 Dependent on market interest rate.

DZ BANK has issued registered profit-participation certificates with a volume of €63 million. Total registered profit-participation certificates comprise 6 separate issues with an original maturity of 16 years and a coupon of 7.06 percent each.

The total interest expense in respect of profit-sharing rights in 2015 was €18 million (2014: €26 million).

Accrued interest not yet due for payment amounting to €18 million (December 31, 2014: €18 million) is included within the profit-sharing rights balance sheet item.

The table below shows a list of the derivatives recognized at fair value by product area:

» 27
LIST OF DERIVATIVES RECOGNIZED AT FAIR VALUE BY PRODUCT AREA

€ million	Nominal amount					Fair value			
	Time to maturity			Total amount		Positive		Negative	
	≤ 1 year	> 1–5 years	> 5 years	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
INTEREST-LINKED CONTRACTS	**128,792**	**285,728**	**330,482**	**745,002**	**687,221**	**20,334**	**25,021**	**19,565**	**23,585**
OTC products									
Forward rate agreements	9,398	–	–	9,398	5,673	0	0	0	0
Interest-rate swaps (same currency)	100,675	244,036	305,383	650,094	572,023	18,138	22,038	15,817	18,696
Interest-rate options – call	5,822	18,341	9,638	33,801	43,808	2,063	2,856	29	20
Interest-rate options – put	8,084	22,641	15,461	46,186	60,284	133	127	3,719	4,869
Exchange-traded products									
Interest-rate futures	4,813	710	–	5,523	5,433	–	–	–	–
CURRENCY-LINKED CONTRACTS	**18,108**	**4,388**	**158**	**22,654**	**20,618**	**340**	**321**	**327**	**386**
OTC products									
Forward forex transactions	8,386	2,024	110	10,520	10,304	230	180	195	229
Forex options – call	4,496	1,035	–	5,531	4,685	26	33	14	7
Forex options – put	4,670	1,314	17	6,001	5,232	18	11	42	38
Exchange-traded products									
Forex futures	209	–	–	209	133	–	–	–	–
Forex options	347	15	31	393	264	66	97	76	112
SHARE-/INDEX-LINKED CONTRACTS	**10,546**	**5,810**	**1,148**	**17,504**	**16,318**	**772**	**816**	**1,197**	**1,146**
OTC products									
Share/index options – call	541	187	39	767	578	59	28	–	0
Share/index options – put	231	219	–	450	374	0	–	44	32
Other share/index contracts	957	2,269	816	4,042	4,113	44	84	71	29
Exchange-traded products									
Share/index futures	418	18	0	436	380	–	–	–	–
Share/index options	8,399	3,117	293	11,809	10,873	669	704	1,082	1,085

€ million	Nominal amount					Fair value			
	Time to maturity			Total amount		Positive		Negative	
	≤ 1 year	> 1–5 years	> 5 years	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
OTHER CONTRACTS	**7,114**	**23,488**	**9,067**	**39,669**	**32,231**	**1,221**	**817**	**2,320**	**1,492**
OTC products									
Cross-currency swaps	5,855	22,878	9,027	37,760	30,685	1,101	736	2,182	1,388
Precious metal contracts	–	7	–	7	8	–	–	1	1
Commodities contracts	322	352	–	674	862	5	8	5	8
Exchange-traded products									
Futures	190	57	0	247	148	0	0	1	0
Options	747	194	40	981	528	115	73	131	95
CREDIT DERIVATIVES	**8,163**	**18,933**	**2,968**	**30,064**	**34,744**	**234**	**328**	**130**	**187**
Protection buyer									
Credit default swaps	3,767	7,911	428	12,106	14,764	31	59	88	136
Total return swaps	13	138	–	151	161	2	0	1	3
Protection seller									
Credit default swaps	4,383	10,884	2,540	17,807	19,819	201	269	41	48
Total	**172,723**	**338,347**	**343,823**	**854,893**	**791,132**	**22,901**	**27,303**	**23,539**	**26,796**

A substantial proportion of the transactions listed were entered into for the purposes of hedging interest-rate, exchange-rate, market, or credit risk.

The table below shows a list of the derivatives recognized at fair value by counterparty structure:

» 28
LIST OF DERIVATIVES RECOGNIZED AT FAIR VALUE BY COUNTERPARTY STRUCTURE

€ million	Fair value			
	Positive		Negative	
	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
OECD central governments	189	246	395	451
OECD banks	19,680	23,940	20,859	24,245
OECD financial services institutions	82	0	179	–
Other companies, private individuals	2,928	3,099	1,893	1,822
Non-OECD central governments	0	0	–	–
Non-OECD banks	22	18	213	278
Total	**22,901**	**27,303**	**23,539**	**26,796**

The table below shows a list of the derivatives not recognized at fair value by product area:

» 29
LIST OF DERIVATIVES NOT RECOGNIZED AT FAIR VALUE BY PRODUCT AREA

	Nominal amount					Fair value			
	Time to maturity			Total amount		Positive		Negative	
€ million	≤ 1 year	> 1–5 years	> 5 years	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
INTEREST-LINKED CONTRACTS	**81**	**877**	**3,310**	**4,268**	**5,425**	**825**	**898**	**531**	**581**
OTC products									
Interest-rate swaps (same currency)	30	777	3,310	4,117	4,376	825	897	530	581
Interest-rate options – put	20	100	–	120	20	0	1	1	–
Exchange-traded products									
Interest-rate futures	31	–	–	31	1,029	–	0	0	0
CURRENCY-LINKED CONTRACTS	**44,982**	**1,843**	**172**	**46,997**	**28,147**	**548**	**665**	**560**	**295**
OTC products									
Forward forex transactions	44,982	1,843	172	46,997	28,147	548	665	560	295
OTHER CONTRACTS	**462**	**842**	**500**	**1,804**	**2,059**	**86**	**50**	**311**	**210**
OTC products									
Cross-currency swaps	462	842	500	1,804	2,059	86	50	311	210
CREDIT DERIVATIVES	**100**	**–**	**34**	**134**	**142**	**0**	**0**	**1**	**1**
Protection buyer									
Credit default swaps	100	–	34	134	142	0	0	1	1
Total	**45,625**	**3,562**	**4,016**	**53,203**	**35,773**	**1,459**	**1,613**	**1,403**	**1,087**

The transactions listed were entered into for the purposes of hedging interest-rate, exchange-rate, market, or credit risk.

The carrying amounts of non-trading derivatives not recognized at fair value included the offsetting item for currency translation of €264 million (December 31, 2014: –) and premiums from options of €1 million (December 31, 2014: €0 million) under other liabilities.

Prepaid expenses and accrued income include upfront payments of €0 million on interest-rate swaps (December 31, 2014: €0 million). Deferred income and accrued expenses include upfront payments of €0 million on interest-rate swaps (December 31, 2014: €0 million). Deferred interest income from non-trading derivatives not recognized at fair value is reported in the amount of €41 million (December 31, 2014: €49 million) under loans and advances to banks and in the amount of €7 million (December 31, 2014: €14 million) under loans and advances to customers, while accrued interest expense on non-trading derivatives not recognized at fair value is reported in the amount of €38 million (December 31, 2014: €41 million) under deposits from banks, and in the amount of €8 million (December 31, 2014: €16 million) under deposits from customers.

The table below shows a list of the derivatives not recognized at fair value by counterparty structure:

» 30
LIST OF DERIVATIVES NOT RECOGNIZED AT FAIR VALUE BY COUNTERPARTY STRUCTURE

	Fair value			
	Positive		Negative	
€ million	**Dec. 31, 2015**	Dec. 31, 2014	**Dec. 31, 2015**	Dec. 31, 2014
OECD banks	1,145	1,325	1,326	1,033
OECD financial services institutions	0	–	7	–
Other companies, private individuals	303	288	67	49
Non-OECD banks	11	0	3	5
Total	**1,459**	**1,613**	**1,403**	**1,087**

C. Income statement disclosures

» 31 BREAKDOWN OF INCOME BY GEOGRAPHICAL MARKET

The table below shows the geographical breakdown of total interest income, current income from shares and other variable-yield securities, long-term equity investments and shares in affiliated companies, fee and commission income, net trading income, and other operating income:

%	2015	2014
Germany	95.05	93.78
International	4.95	6.22

» 32 FEE AND COMMISSION INCOME AND EXPENSES

The surplus of fee and commission income over fee and commission expenses resulted from the following services:

€ million	2015	2014
Securities business	102	89
Transaction banking/international business	62	55
Lending and financial guarantee business	99	105
Other	25	27
Total	**288**	**276**

» 33 ADMINISTRATION AND AGENCY SERVICES PROVIDED FOR THIRD PARTIES

Services provided for third parties relate primarily to custody services and the management of trust assets.

» 34 OTHER OPERATING INCOME AND EXPENSES

The other operating income of €102 million largely comprised income of €45 million from the reversal of provisions, rental income of €15 million, and income of €12 million resulting from out-of-court settlement negotiations and completed court cases involving the New York branch. It also contained exchange rate gains in the banking book amounting to €6 million.

Other operating expenses of €219 million were mainly attributable to net expenses of €132 million incurred by the measurement of pension plans, operating costs and rental expenses of €20 million in connection with premises not used for banking operations, project costs for paydirekt of €20 million, an addition to provisions for anticipated losses of €4 million in connection with the building at Pariser Platz 3 in Berlin, litigation costs of the New York branch of €6 million, the unwinding of discounts on other provisions amounting to €7 million, and interest expenses of €7 million on revised tax liabilities.

» 35 EXTRAORDINARY INCOME AND EXPENSES

The extraordinary income and expenses resulted from restructuring measures relating to the closure of the Poland branch of €9 million and from auditing and consultancy costs of €4 million in connection with the merger.

» 36 INCOME TAXES

The expenses reported under income taxes arose from corporation tax and trade tax gains allocated to the tax groups amounting to €201 million, a tax expense of €194 million for the current year, a tax expense of €20 million relating to prior years, and income of €5 million from the unwinding of the discount on the corporation tax credit claim. This item also included deferred tax expenses of €328 million in accordance with section 274 HGB in 2015. Income taxes are recognized exclusively in respect of the result from ordinary activities.

» 37 PROPOSED APPROPRIATION OF PROFITS

It will be proposed to the Annual General Meeting that the distributable profit be appropriated for a dividend payment of €0.16 (2014: €0.15) per non-par-value share.

D. Other disclosures

» 38
TYPE, PURPOSE, RISKS, AND BENEFITS OF OFF-BALANCE-SHEET TRANSACTIONS

The following unused liquidity lines were available as at December 31, 2015 in connection with asset-backed commercial paper (ABCP) transactions:

Transaction	Type of transaction	Purpose of transaction	Unused liquidity lines (€ million)	Risks
CORAL	ABCP conduit	Customer-focused corporate funding to generate commission income	475	Utilization of available liquidity lines
AUTOBAHN	ABCP conduit	Customer-focused corporate funding to generate commission income	2,009	Utilization of available liquidity lines
Non-DZ BANK Group conduits	ABCP conduit	Customer-focused corporate funding to generate commission income	102	Utilization of available liquidity lines
Total			**2,586**	

These unused liquidity lines are the undrawn portions of lines granted externally to ABCP conduits. The purpose of the liquidity lines is to ensure that the individual conduits can be funded if commercial paper cannot be placed in the market. The above-mentioned risks are included in DZ BANK's liquidity risk models in full.

» 39
OTHER FINANCIAL OBLIGATIONS

As at December 31, 2015, the total amount of other financial obligations for the following year was €276 million (December 31, 2014: €164 million). Most of these obligations related to follow-up obligations under memoranda and articles of association and to obligations under lease agreements, capital expenditure projects, and pending transactions. This amount includes obligations to affiliated companies of €24 million (December 31, 2014: €24 million).

Other financial obligations will amount to €358 million for years from 2017 onward. This amount includes obligations to affiliated companies of €155 million.

Furthermore, DZ BANK has entered into an irrevocable payment obligation to the restructuring fund arising from the bank levy of €9 million. Collateral of the same amount has been pledged. The pledged collateral is included in other assets.

DZ BANK has given transfer guarantee declarations to domestic entities and public institutions in respect of certain deposits at its branches in London and New York covering eventualities in which the branches may be prevented from meeting their repayment obligations by the decision of governments.

DZ BANK is a participant in the protection scheme operated by the Bundesverband der Deutschen Volksbanken und Raiffeisenbanken e.V. (BVR) [National Association of German Cooperative Banks], Berlin. This facility comprises a guarantee fund and a guarantee network. Under the terms of its statutes, DZ BANK has lodged a guarantee bond of up to €113 million with the BVR in support of the guarantee network in order to cover any eventualities.

» 40 LETTERS OF COMFORT

Except in the event of political risk, DZ BANK has undertaken to ensure in proportion to its shareholding for the consolidated entity DZ PRIVATBANK S.A., Luxembourg-Strassen, for VR Equitypartner GmbH, Frankfurt am Main, and in total for Deutsche Genossenschafts-Hypothekenbank AG, Hamburg, and for DZ PRIVATBANK Singapore Ltd., Singapore, that these companies are able to meet their contractual obligations. These companies are identified in the list of DZ BANK's shareholdings (Note 51) as being covered by a letter of comfort. DZ BANK has also issued subordinated letters of comfort in respect of DZ BANK Capital Funding LLC I, DZ BANK Capital Funding LLC II, and DZ BANK Capital Funding LLC III, all based in Wilmington. In addition, DZ BANK has issued 5 subordinated letters of comfort in respect of DZ BANK Perpetual Funding (Jersey) Limited, St. Helier, each relating to different classes of preferred shares.

» 41 HEDGE ACCOUNTING

DZ BANK has recognized a micro-hedge and included it in hedge accounting in accordance with section 254 HGB in order to hedge the currency risk arising from the long-term equity investment in DG Funding LLC, New York, in its banking book. The bank funded the carrying amount of its investment by raising US dollar-denominated fixed-term deposits. These fixed-term deposits are rolled over every 3 months. This perfect hedge ensures that the exchange-rate fluctuations in the hedge over the term of the deposits totally cancel each other out. DZ BANK proves the effectiveness of its hedge both prospectively and retrospectively by reconciling the measurement-related parameters.

» 42 EMPLOYEES

Average number of employees by employee group:

	2015	2014
Female employees	**1,808**	**1,801**
Full-time employees	1,129	1,161
Part-time employees	679	640
Male employees	**2,504**	**2,449**
Full-time employees	2,369	2,331
Part-time employees	135	118
Total employees	**4,312**	**4,250**

» 43 AUDITOR FEES

For information on the total fees billed for 2015 by the auditors Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, please refer to Note 93 'Auditor fees' in DZ BANK's 2015 consolidated financial statements.

» 44 INVESTMENT FUND ASSETS

DZ BANK owned the following holdings of more than 10 percent of the units in investment fund assets within the meaning of section 285 no. 26 HGB as at December 31, 2015:

INVESTMENT FUND ASSETS BY INVESTMENT OBJECTIVE

€ million	Carrying amount	Fair value	Difference between fair value and carrying amount	Distributions paid for 2015
Mixed fund (pension fund)	725	725	–	19

DZ BANK uses its investments in the pension fund to cover and fund its direct pension obligations in Germany over the long term.

» 45 CONTINGENT LIABILITIES AND OTHER OBLIGATIONS

DZ BANK only assumes liabilities in the form of guarantees and indemnity agreements after it has carefully assessed the risks involved. Having constantly evaluated the risks attaching to the guarantees and indemnity agreements that it has entered into, the bank is currently of the view that the principal debtors concerned will be able to meet the obligations underlying these guarantees and indemnity agreements. DZ BANK believes that these guarantees and indemnity agreements are unlikely to be utilized.

In order to cover acute risks arising from guarantees, indemnity agreements and irrevocable loan commitments, the bank has recognized provisions of an appropriate amount and has reduced the relevant figures reported by a corresponding amount.

» 46 COVER STATEMENT

The following cover is in place for outstanding covered bonds and derivatives:

€ million	Dec. 31, 2015	Dec. 31, 2014
Total cover assets	**21,004**	**21,801**
Ordinary cover	**21,002**	**21,799**
Loans and advances to banks	11,972	12,245
Loans and advances to customers	831	817
Bonds and other fixed-income securities	8,199	8,737
Derivatives held as cover	**2**	**2**
Cover requirement	**12,827**	**15,189**
Outstanding covered		
– bearer bonds	4,108	5,450
– registered bonds	8,719	9,739
Derivatives	–	0
Excess cover	**8,177**	**6,612**

» 47 TRUSTEES OF COVER ASSETS

The trustees are appointed by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) [Federal Financial Supervisory Authority] and have a duty under law to ensure that the issuance, administration, and collateralization of DZ BANK's covered bonds comply with statutory requirements, the provisions of the Articles of Association, and the terms and conditions of the bonds.

TRUSTEE

KLAUS SCHMITZ
Presiding Judge at the
Frankfurt am Main regional court (retired)

DEPUTY TRUSTEE

KLAUS WIENS
Presiding Judge at the
Frankfurt am Main regional court (retired)

» 48 RELATED PARTY DISCLOSURES

The exercise of DZ BANK's normal business activities involves parties related to DZ BANK. Transactions with related parties within the meaning of section 285 no. 21 HGB are conducted on an arm's-length basis.

» 49 DECISION-MAKING BODIES

The total remuneration for the members of the Board of Managing Directors of DZ BANK in 2015 was €7,918 thousand (2014: €8,159 thousand). The total remuneration for the Supervisory Board was €747 thousand (2014: €592 thousand). The total remuneration for the Board of Managing Directors in 2015 and 2014 includes the total bonus awarded to the Board of Managing Directors for the year in question. A sum of 20 percent of the total bonus determined on the basis of targets achieved is paid out in the subsequent year immediately after the annual financial statements have been formally adopted. Payment of the remaining 80 percent of the bonus of €1,113 thousand granted for 2015 (2014: €1,261 thousand) depends on the sustained share price performance based on a calculation of enterprise value per DZ BANK share and is spread out over a period of up to 4 years in total.

A total amount of €8,544 thousand (2014: €8,740 thousand) was paid to former members of the Board of Managing Directors or their surviving dependants, for whom pension obligations of €100,593 thousand (2014: €98,495 thousand) were also recognized.

BOARD OF MANAGING DIRECTORS OF DZ BANK

WOLFGANG KIRSCH
(Chief Executive Officer)
Responsibilities: Legal,
Communication & Marketing,
Verbund, Audit

LARS HILLE
Responsibilities: Capital Markets Trading, Capital Markets Retail, Research and Economics

WOLFGANG KÖHLER
Responsibilities: Group Treasury, Capital Markets Institutional Clients

DR. CORNELIUS RIESE
Responsibilities: Finance, Strategy & Controlling

THOMAS ULLRICH
Responsibilities: IT, Organisation, Operations/Services, Human Resources

FRANK WESTHOFF
Responsibilities: Credit, Risk Controlling, Compliance Office

STEFAN ZEIDLER
Responsibilities: Corporate Banking, Structured Finance

SUPERVISORY BOARD OF DZ BANK

HELMUT GOTTSCHALK
(Chairman of the Supervisory Board)
Spokesman of the Board
of Managing Directors
Volksbank Herrenberg-Nagold-
Rottenburg eG

WOLFGANG APITZSCH
(Deputy Chairman
of the Supervisory Board
until May 28, 2015)
Attorney

HENNING DENEKE-JÖHRENS
(Deputy Chairman
of the Supervisory Board)
Chief Executive Officer
Volksbank eG
Hildesheim-Lehrte-Pattensen

ULRICH BIRKENSTOCK
(Deputy Chairman
of the Supervisory Board
since May 28, 2015)
Employee
R+V Allgemeine Versicherung AG

HEINER BECKMANN
Senior manager
R+V Allgemeine Versicherung AG

RÜDIGER BEINS
(Member of the Supervisory Board
until May 28, 2015)
Employee
DZ BANK AG
Deutsche Zentral-Genossenschaftsbank

HERMANN BUERSTEDDE
Employee
Union Asset Management Holding AG

KARL EICHELE
(Member of the Supervisory Board
until May 28, 2015)
Employee
Schwäbisch Hall Kreditservice GmbH

UWE FRÖHLICH
President
Bundesverband der Deutschen Volksbanken
und Raiffeisenbanken e.V. (BVR)

ANDREA HARTMANN
(Member of the Supervisory Board
since May 28, 2015)
Employee
Bausparkasse Schwäbisch Hall AG

PILAR HERRERO LERMA
(Member of the Supervisory Board
since May 28, 2015)
Employee
DZ BANK AG
Deutsche Zentral-Genossenschaftsbank

DR. DIERK HIRSCHEL
(Member of the Supervisory Board
since May 28, 2015)
Head of the Economic Policy Division
ver.di Bundesverwaltung

KLAUS HOLDERBACH
Chief Executive Officer
Volksbank Franken eG

BERND HÜHN
Chief Executive Officer
Volksbank Alzey-Worms eG

SIGMAR KLEINERT
(Member of the Supervisory Board
until May 28, 2015)
Employee
DZ BANK AG
Deutsche Zentral-Genossenschaftsbank

RENATE MACK
(Member of the Supervisory Board
since May 28, 2015)
Employee
DZ BANK AG
Deutsche Zentral-Genossenschaftsbank

RAINER MANGELS
Employee
R+V Rechtsschutz-
Schadenregulierungs-GmbH

DIETER REMBDE
Member of the Board of Managing
Directors
VR-Bank Schwalm-Eder
Volksbank Raiffeisenbank eG
(until June 30, 2015)

STEPHAN SCHACK
Spokesman of the Board
of Managing Directors
Volksbank Raiffeisenbank eG, Itzehoe

GREGOR SCHELLER
Chief Executive Officer
Volksbank Forchheim eG

GUDRUN SCHMIDT
(Member of the Supervisory Board
until May 28, 2015)
Regional Group Director (ret.)
ver.di Landesbezirk Hessen

UWE SPITZBARTH
Head of the Financial Services Division
ver.di Bundesverwaltung

SIGRID STENZEL
(Member of the Supervisory Board
since May 28, 2015)
Coordinator, Financial Services Department
ver.di Bundesverwaltung

DR. WOLFGANG THOMASBERGER
Chief Executive Officer
VR Bank Rhein-Neckar eG

HANS-BERND WOLBERG
Chief Executive Officer
WGZ BANK AG
Westdeutsche Genossenschafts-Zentralbank

As at December 31, 2015, members of the Board of Managing Directors and employees also held mandates on the statutory supervisory bodies of major companies. These and other notable mandates are listed below. Companies included in the consolidation are indicated with an asterisk (*).

» 50 SUPERVISORY MANDATES HELD BY MEMBERS OF THE BOARD OF MANAGING DIRECTORS AND EMPLOYEES

MEMBERS OF THE BOARD OF MANAGING DIRECTORS

WOLFGANG KIRSCH (Chief Executive Officer)	Bausparkasse Schwäbisch Hall AG, Schwäbisch Hall, Chairman of the Supervisory Board (*)
	R+V Versicherung AG, Wiesbaden, Chairman of the Supervisory Board (*)
	Südzucker AG, Mannheim, Member of the Supervisory Board
	Union Asset Management Holding AG, Frankfurt am Main, Chairman of the Supervisory Board (*)
LARS HILLE	Bausparkasse Schwäbisch Hall AG, Schwäbisch Hall, Member of the Supervisory Board (*)
	Cassa Centrale Banca – Credito Cooperativo del Nord Est S.p.A., Trento, Member of the Board of Directors
	Deutsche WertpapierService Bank AG, Frankfurt am Main, Member of the Supervisory Board
	DZ PRIVATBANK S.A., Luxembourg-Strassen, Chairman of the Supervisory Board (*)
	TeamBank AG Nürnberg, Nuremberg Chairman of the Supervisory Board (*)
	Union Asset Management Holding AG, Frankfurt am Main, Member of the Supervisory Board (*)
WOLFGANG KÖHLER	DVB Bank SE, Frankfurt am Main, Member of the Supervisory Board (*)
	DZ PRIVATBANK S.A., Luxembourg-Strassen, Member of the Supervisory Board (*)
	R+V Lebensversicherung AG, Wiesbaden, Member of the Supervisory Board (*)

DR. CORNELIUS RIESE	Bausparkasse Schwäbisch Hall AG, Schwäbisch Hall, Member of the Supervisory Board (*) R+V Allgemeine Versicherung AG, Wiesbaden, Member of the Supervisory Board (*) R+V Lebensversicherung AG, Wiesbaden, Member of the Supervisory Board (*) VR-LEASING AG, Eschborn, Member of the Supervisory Board (*)
THOMAS ULLRICH	Deutsche WertpapierService Bank AG, Frankfurt am Main, Deputy Chairman of the Supervisory Board Equens SE, Utrecht, Member of the Supervisory Board
FRANK WESTHOFF	BAG Bankaktiengesellschaft, Hamm, Member of the Supervisory Board Deutsche Genossenschafts-Hypothekenbank AG, Hamburg, Chairman of the Supervisory Board (*) Deutsche WertpapierService Bank AG, Frankfurt am Main, Member of the Supervisory Board DVB Bank SE, Frankfurt am Main, Chairman of the Supervisory Board (*) TeamBank AG Nürnberg, Nuremberg, Deputy Chairman of the Supervisory Board (*)
STEFAN ZEIDLER	Deutsche Genossenschafts-Hypothekenbank AG, Hamburg, Member of the Supervisory Board (*) EDEKABANK AG, Hamburg, Member of the Supervisory Board VR-LEASING AG, Eschborn, Chairman of the Supervisory Board (*)

EMPLOYEES

DR. LUIS-ESTEBAN CHALMOVSKY	Banco Cooperativo Español S.A., Madrid, Member of the Board of Directors
DR. THOMAS KETTERN	Raiffeisen-Warenzentrale Kurhessen-Thüringen GmbH, Kassel, Member of the Supervisory Board
VERA KONERMANN	ReiseBank AG, Frankfurt am Main, Member of the Supervisory Board (*)
WINFRIED MÜNCH	AKA Ausfuhrkredit-Gesellschaft mbH, Frankfurt am Main, Member of the Supervisory Board
DR. PETER NEU	Equens SE, Utrecht, Member of the Supervisory Board
CLAUDIO RAMSPERGER	Cassa Centrale Banca – Credito Cooperativo del Nord Est S.p.A., Trento, Member of the Board of Directors
GREGOR ROTH	ConCardis GmbH, Frankfurt am Main, Member of the Supervisory Board
	Deutsche WertpapierService Bank AG, Frankfurt am Main, Member of the Supervisory Board
	Equens SE, Utrecht, Deputy Chairman of the Supervisory Board
	ReiseBank AG, Frankfurt am Main, Chairman of the Supervisory Board (*)
DAGMAR WERNER	Banco Cooperativo Español S.A., Madrid, Member of the Board of Directors

» 51 LIST OF SHAREHOLDINGS

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
ABO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	94.80		37	122
Adger Ocean KS (I)[1]	Oslo, Norway	0.00		0	0
Adger Ocean KS II[1]	Oslo, Norway	0.00		0	0
Adger Ocean KS III[1]	Oslo, Norway	0.00		0	0
AER Holding N.V.[1]	Willemstad, Netherlands Antilles	100.00		0	0
AFK Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	-1
AFU Grundstücksverwaltungsgesellschaft mbH[1,5]	Eschborn	100.00		112	0
AGIMA Aktiengesellschaft für Immobilien-Anlage[5]	Frankfurt am Main	100.00		84,025	0
Al Sahaab Aircraft Leasing Company[1]	Mirgab, Cayman Islands	0.00		0	0
American Flirtation N.V.[1]	Curaçao, Netherlands Antilles	100.00		0	0
Aquila Aircraft Leasing Ltd.[1]	Dublin, Ireland	0.00		0	0
Aran Airfinance Ltd.[1]	Tokyo, Japan	100.00		4	-4
ARATOS GmbH[1]	Eschborn	100.00		82	57
ARATOS GmbH & Co. Immobilien KG[1,6]	Eschborn	6.00	76.00	153	98
ARGINUS GmbH[1]	Eschborn	100.00		197	92
ARMIDA GmbH[1]	Eschborn	100.00		45	20
Asgard Shipping LLC[1]	Majuro, Marshall Islands	0.00		0	0
ASPASIA GmbH[1]	Eschborn	100.00		54	29
Assimoco S.p.A.[1]	Segrate (Mi), Italy	89.39		99,180	9,850
Assimoco Vita S.p.A.[1]	Segrate (Mi), Italy	82.14		120,486	5,815
Assimocopartner S.r.l. Unipersonale[1]	Segrate (Mi), Italy	100.00		180	-41
attrax S.A.[1]	Luxembourg, Luxembourg	100.00		36,643	20,659
Aufbau und Handelsgesellschaft mbH[1]	Stuttgart	94.90		525	1,167
AURIGA GmbH[1]	Eschborn	100.00		-563	15
Autobahn 2003 Holdings LLC[1]	Wilmington, USA	0.00		0	0
AXICA Kongress- und Tagungszentrum Pariser Platz 3 GmbH[5]	Berlin	100.00		26	0
Bathgate Trading Opco LLC[1]	Majuro, Marshall Islands	0.00		0	0
Bausparkasse Schwäbisch Hall Aktiengesellschaft – Bausparkasse der Volksbanken und Raiffeisenbanken –[5]	Schwäbisch Hall	81.87		1,812,302	0
Berwick Shipping LLC[1]	Majuro, Marshall Islands	0.00		0	0
Beteiligungsgesellschaft Westend 1 mbH & Co. KG[1]	Frankfurt am Main	94.90		17,485	0
BFL Gesellschaft des Bürofachhandels mbH & Co. KG[1]	Eschborn	73.26	73.00	17,208	4,384
BFL Leasing GmbH[1]	Eschborn	100.00		14,157	6,008
BIG-Immobilien Gesellschaft mit beschränkter Haftung[1]	Frankfurt am Main	100.00		735	-1
BIG-Immobilien GmbH & Co. Betriebs KG[1]	Frankfurt am Main	100.00		5,109	547
Blasket Airfinance Ltd.[1]	Tokyo, Japan	100.00		4	-4
Bluebell Aircraft Leasing Ltd.[1]	Floriana, Malta	100.00	0.00	0	0
Bonham Aircraft Leasing Ltd.[1]	George Town, Cayman Islands	0.00		0	0
Braveheart Shipping Holdco LLC[1]	Majuro, Marshall Islands	0.00		0	0
Braveheart Shipping Opco LLC[1]	Majuro, Marshall Islands	0.00		0	0
Bukit Merah Shipping Pte. Ltd.[1]	Singapore, Singapore	0.00		0	0
Bulls Aircraft Leasing (Malta) Ltd.[1]	Floriana, Malta	100.00	0.00	0	0
Buzzard Aircraft Leasing Limited i.L.[1]	Dublin, Ireland	100.00	0.00	0	0
BWG Baugesellschaft Württembergischer Genossenschaften mbH[1]	Stuttgart	94.78		9,965	0
Calidris Shipping LLC[1]	Majuro, Marshall Islands	100.00	0.00	0	0
CALYPSO GmbH[1]	Eschborn	100.00		-469	-106
CANOPOS GmbH[1]	Eschborn	100.00		47	22
CANOPOS GmbH & Co. Immobilien KG[1,6]	Eschborn	100.00		27	26
Capital Lease Limited[1]	Hong Kong, Hong Kong	0.00		0	0
carexpert Kfz-Sachverständigen GmbH[1]	Walluf	60.00		4,333	1,261
Cash Express Gesellschaft für Finanz- und Reisedienstleistungen mbH[1,5]	Frankfurt am Main	100.00		1,543	0
CATHENA GmbH[1]	Eschborn	100.00		52	27
CELES Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		332	0
Centra Leasing Anlagen GmbH[1,5]	Eschborn	100.00		5,899	0
CHEMIE Pensionsfonds AG[1]	Munich	100.00		20,318	2,000

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
Chiefs Aircraft Holding (Malta) Limited[1]	Floriana, Malta	100.00	0.00	0	0
CI Assekuradeur GmbH[1]	Hamburg	100.00		116	-2
CI CONDOR Immobilien GmbH[1,5]	Hamburg	100.00		25,500	0
Clementine Shipping LLC[1]	Majuro, Marshall Islands	0.00		0	0
compertis Beratungsgesellschaft für betriebliches Vorsorgemanagement mbH[1]	Wiesbaden	100.00		3,880	750
Condor Allgemeine Versicherungs-Aktiengesellschaft[1,5]	Hamburg	100.00		41,762	0
Condor Dienstleistungs GmbH[1]	Hamburg	100.00		203	3
Condor Lebensversicherungs-Aktiengesellschaft[1,5]	Hamburg	94.99		38,588	0
Container Investment Fund I LLC[1]	Majuro, Marshall Islands	0.00		0	0
Container Investment Fund II LLC[1]	Majuro, Marshall Islands	0.00		0	0
Cruise Ship InvestCo LLC[1]	Majuro, Marshall Islands	0.00		0	0
Cruise/Ferry Master Fund I N.V.	Willemstad, Netherlands Antilles	0.00		0	0
DAC Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		60	35
DAC Grundstücksverwaltungsgesellschaft mbH & Co. Objekt Lüneburg KG[1,6]	Eschborn	99.00	83.67	43	42
Dalian Deepwater Developer Ltd.[1]	St. Helier, Jersey	0.00		0	0
DCAL Aircraft Malta Ltd[1]	Floriana, Malta	0.00		0	0
DEGEACTA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	0
DEGEAKZENT Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		41	16
DEGEALBUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		23	0
DEGEALPHA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	1
DEGEARKADE Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		76	51
DEGEARKADE Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		62	61
DEGEASPEKT Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		54	28
DEGEASPEKT Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		35	34
DEGEASTURA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		60	35
DEGEASTURA Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		-946	61
DEGEAVUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGEAVUS Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		-258	-122
DEGEBALTA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		75	49
DEGEBALTA Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	94.90	75.00	67	61
DEGECAMPUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		20	-7
DEGECANDOR Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		192	166
DEGECASTELL GmbH[1]	Eschborn	100.00		4,014	2,108
DEGECEBER Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	1
DEGECEBER Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		0	-1
DEGECEDO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		813	130
DEGECENSUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		43	17
DEGECENSUS Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		22	21
DEGECENUM Grundstücksverwaltungsgesellschaft mbH[1,5]	Eschborn	100.00		26	0
DEGECIVO Grundstücksverwaltungsgesellschaft mbH Berlin[1]	Berlin	100.00		31	3
DEGECOMO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		25	0
DEGECULA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		84	59
DEGEDELTA Vermietungsgesellschaft für Betriebsvorrichtungen mbH[1]	Eschborn	100.00		28	2
DEGEDENAR Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		106	81
DEGEDESTRA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	1
DEGEDOMUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGEDOMUS Grundstücksverwaltungsgesellschaft mbH & Co. Gewerbeobjekte Süd KG[1,6]	Eschborn	100.00		3	15
DEGEFELIX Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	0
DEGEFILA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		24	-1
DEGEFULVA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		36	10
DEGEGAMMA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		25	0
DEGEHAVEL Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	0

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
DEGEIMPULS Grundstücksverwaltungsgesellschaft Objekt Hattingen mbH[1]	Eschborn	100.00		836	-1,444
DEGEKONKRET Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		22	0
DEGEKONZEPT Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		25	-1
DEGEMALVA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGEMALVA Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		3	39
DEGEMARO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		25	0
DEGEMEDIUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	1
DEGEMEDIUS Grundstücksverwaltungsgesellschaft mbH & Co. Objekt Voerde KG[1,6]	Eschborn	90.00	66.67	3	1
DEGEMENAR Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGEMILA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		25	0
DEGEMINAX Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		45	20
DEGEMIOS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		25	0
DEGEMOBIL Vermietungsgesellschaft für Betriebsvorrichtungen mbH[1]	Eschborn	100.00		-10	31
DEGEMOLA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	0
DEGEMOLTO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		68	42
DEGEMONDO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		25	0
DEGEMONTES Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		178	153
DEGEMOX Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	1
DEGEMOX Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		3	33
DEGEMULTI Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	0
DEGENASUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGENATUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	0
DEGENAUTA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	0
DEGENAVIGO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	0
DEGENAVO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	0
DEGENITOR Grundstücksverwaltungsgesellschaft mbH[1,5]	Eschborn	100.00		26	0
DEGEPALLAS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	8
DEGEPALMA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGEPALMA Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		3	43
DEGEPATRO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		108	61
DEGEPEXUM Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	1
DEGEPRIMUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		55	29
DEGEPROJEKT Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		181	70
DEGEPROLOG Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	0
DEGEPROMO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		31	1
DEGEPROMO Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		-22	-1
DEGEREAL Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		63	38
DEGEREKORD Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	1
DEGEREMEX Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	1
DEGEREX Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		54	29
DEGERIA Beteiligungsgesellschaft mbH[1]	Eschborn	100.00		26	0
DEGERIMA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		30	3
DEGERIPA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		42	16
DEGERISOR Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	0
DEGERIXOR Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	1
DEGEROTA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		27	1
DEGERUDENS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		20	0
DEGERUMEX Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		71	46
DEGERUMEX Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		-110	128
DEGERUTILO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	0
DEGESAMOS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGESAPOR Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	1
DEGESAPOR Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		3	38

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
DEGESERA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGESERVO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGESERVO Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		-482	133
DEGESIDUX Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		64	38
DEGESIDUX Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	94.91	75.00	951	264
DEGESIGNUM Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		54	29
DEGESILEX Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		74	48
DEGESILVA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		35	9
DEGESISTO Grundstücksverwaltungsgesellschaft mbH[1,5]	Eschborn	100.00		114	0
DEGESOLOR Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		24	-2
DEGESOLVO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGESPRIO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	0
DEGESTRENA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		71	46
DEGESUR Grundstücksverwaltungsgesellschaft mbH[1,5]	Eschborn	100.00		634	0
DEGETAMESIS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		58	32
DEGETANTUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		43	18
DEGETANTUS Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[2,6]	Eschborn	100.00		-371	27
DEGETEMPUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	1
DEGETEMPUS Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		3	27
DEGETERRA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		41	16
DEGETEXTUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		23	0
DEGETIBUR Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		52	26
DEGETRACTUS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		63	37
DEGETRINUM Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		49	24
DEGETUTOR Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGETUTOR Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		3	15
DEGEVIA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		28	1
DEGEVIA Grundstücksverwaltungsgesellschaft mbH & Co. Objekt Rhede Gronauer Strasse 21 KG[1,6]	Eschborn	90.00	66.67	3	0
DEGEVITRO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		48	22
DEGEVITRO Grundstücksverwaltungsgesellschaft mbH & Co. Immobilien-Vermietungs KG[1,6]	Eschborn	100.00		23	143
DESPINA GmbH[1]	Eschborn	100.00		81	23
Deucalion Capital I (UK) Ltd.[1]	London, UK	0.00		0	0
Deucalion Capital II (MALTA) Limited[1]	Valletta, Malta	0.00		0	0
Deucalion Capital II (UK) Ltd.[1]	London, UK	0.00		0	0
Deucalion Capital II Limited[1]	George Town, Cayman Islands	0.00		0	0
Deucalion Capital VI Limited[1]	George Town, Cayman Islands	0.00		0	0
Deucalion Capital VII Limited[1]	George Town, Cayman Islands	0.00		0	0
Deucalion Capital VIII Limited[1]	George Town, Cayman Islands	0.00		0	0
Deucalion Capital XI Limited[1]	George Town, Cayman Islands	0.00		0	0
Deucalion Engine Leasing (Ireland) Ltd.[1]	Dublin, Ireland	0.00		0	0
Deucalion Ltd.[1]	George Town, Cayman Islands	0.00		0	0
Deutsche Genossenschafts-Hypothekenbank Aktiengesellschaft[3,5]	Hamburg	100.00		1,407,258	0
DEVIF-Fonds Nr. 150 Deutsche Gesellschaft für Investmentfonds[1]	Frankfurt am Main	0.00		0	0
DEVIF-Fonds Nr. 2 Deutsche Gesellschaft für Investmentfonds[1]	Frankfurt am Main	0.00		0	0
DEVIF-Fonds Nr. 250 Deutsche Gesellschaft für Investmentfonds[1]	Frankfurt am Main	0.00		0	0
DEVIF-Fonds Nr. 500 Deutsche Gesellschaft für Investmentfonds[1]	Frankfurt am Main	0.00		0	0
DEVIF-Fonds Nr. 528 Deutsche Gesellschaft für Investmentfonds[1]	Frankfurt am Main	0.00		0	0
DEVIF-Fonds Nr. 60 Deutsche Gesellschaft für Investmentfonds[1]	Frankfurt am Main	0.00		0	0
DG Funding LLC	New York, USA	100.00		114,796	489
DG Holding Trust	New York, USA	100.00		68,609	244
DG LEASING GmbH[1]	Eschborn	100.00		26	0
DG Participacoes Ltda.[1]	São Paulo, Brazil	100.00		0	0
Dilax Beteiligungs Verwaltungsgesellschaft mbH[1]	Berlin	100.00		0	0

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
Dilax Beteiligungsgesellschaft mbH & Co. KG[1]	Berlin	92.39		0	0
Dilax France SAS[1]	Valence, France	100.00		196	145
Dilax Intelcom AG[1]	Ermatingen, Switzerland	100.00		1,287	502
Dilax Intelcom GmbH[1]	Berlin	72.01		3,741	347
Dilax Intelcom Iberica S.L.U.[1]	Madrid, Spain	100.00		69	14
Dilax Management Investment Reserve GmbH[1]	Berlin	100.00		25	0
Dilax Management Investment Verwaltungsgesellschaft mbH[1]	Berlin	100.00		0	0
Dilax Management Investmentgesellschaft mbH & Co. KG[1]	Berlin	99.50		0	0
Dilax Systems Inc.[1]	Saint Lambert, Canada	100.00		266	106
Dilax Systems UK Ltd.[1]	London, UK	100.00		-265	-267
DINO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		26	0
DOBAS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		66	41
Drem Shipping LLC[1]	Majuro, Marshall Islands	0.00		0	0
DRITTE DG Vermietungsgesellschaft für Immobilien mbH[1,5]	Eschborn	100.00		26	0
DUNAVAGON s.r.o.[1]	Dunajská Streda, Slovakia	100.00	0.00	0	0
DURO Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		66	40
DV01 Szarazfoldi Jarmukolcsonzo rt[1]	Áporka, Hungary	0.00		0	0
DVB Aviation Finance Asia Pte Ltd.[1]	Singapore, Singapore	100.00		1,194	1,139
DVB Bank America N.V.[1]	Willemstad, Netherlands Antilles	100.00		259,693	22,666
DVB Bank SE	Frankfurt am Main	95.47		528,182	27,880
DVB Capital Markets LLC[1]	New York, USA	100.00		3,400	508
DVB Container Finance America LLC[1]	Majuro, Marshall Islands	100.00		-1,463	1,108
DVB Group Merchant Bank (Asia) Ltd.[1]	Singapore, Singapore	100.00		0	46,544
DVB Holding (US) Inc.[1]	Greenwich, USA	100.00		1,879	303
DVB Holding GmbH[1,5]	Frankfurt am Main	100.00		13,000	0
DVB Invest (Suisse) AG[1]	Zurich, Switzerland	99.90		228	-19
DVB Investment Management N.V.[1]	Willemstad, Netherlands Antilles	100.00		-119	0
DVB Objektgesellschaft Geschäftsführungs GmbH[1]	Frankfurt am Main	100.00		23	0
DVB Service (US) LLC[1]	Wilmington, USA	100.00		-682	0
DVB Transport (US) LLC[1]	New York, USA	100.00		3,769	1,452
DVB Transport Finance Limited[1]	London, UK	100.00		44,069	-2,241
DVG Deutsche Vermögensverwaltungs-Gesellschaft mit beschränkter Haftung[5]	Frankfurt am Main	100.00		82	0
DVL Deutsche Verkehrs-Leasing GmbH[1]	Eschborn	74.90		2,518	-36
DZ BANK Capital Funding LLC I[2,4]	Wilmington, USA	100.00		301,034	7,615
DZ BANK Capital Funding LLC II[2,4]	Wilmington, USA	100.00		500,001	8,200
DZ BANK Capital Funding LLC III[2,4]	Wilmington, USA	100.00		350,337	5,341
DZ BANK Capital Funding Trust I	Wilmington, USA	0.00	100.00	300,001	7,680
DZ BANK Capital Funding Trust II	Wilmington, USA	0.00	100.00	500,820	8,130
DZ BANK Capital Funding Trust III	Wilmington, USA	0.00	100.00	350,001	5,376
DZ BANK Perpetual Funding (Jersey) Limited[4]	St. Helier, Jersey	0.00	100.00	260,579	2,146
DZ BANK Perpetual Funding Issuer (Jersey) Limited	St. Helier, Jersey	0.00		0	0
DZ BANK Sao Paulo Representacao Ltda.[2]	São Paulo, Brazil	100.00		178	59
DZ Beteiligungsgesellschaft mbH Nr. 11[5]	Frankfurt am Main	100.00		6,620	0
DZ Beteiligungsgesellschaft mbH Nr. 14[5]	Frankfurt am Main	100.00		51	0
DZ Beteiligungsgesellschaft mbH Nr. 18[5]	Frankfurt am Main	100.00		124,726	0
DZ Beteiligungsgesellschaft mbH Nr. 21[5]	Frankfurt am Main	100.00		25	0
DZ Beteiligungsgesellschaft mbH Nr. 22	Frankfurt am Main	100.00		25	0
DZ Beteiligungsgesellschaft mbH Nr. 23[5]	Frankfurt am Main	100.00		25	0
DZ Beteiligungsgesellschaft mbH Nr. 24	Frankfurt am Main	100.00		0	0
DZ Beteiligungsgesellschaft mbH Nr. 3[5]	Frankfurt am Main	100.00		19,121	0
DZ FINANCE Ireland Limited	Dublin, Ireland	100.00		249,856	-10,663
DZ FINANCIAL MARKETS LLC	New York, USA	100.00		3,634	458
DZ Gesellschaft für Grundstücke und Beteiligungen mbH[5]	Frankfurt am Main	100.00		1,383	0
DZ Polska Spólka Akcyjna w likwidacji	Warsaw, Poland	100.00		68,886	-149
DZ PRIVATBANK (Schweiz) AG[1]	Zurich, Switzerland	100.00		212,864	575
DZ PRIVATBANK S.A.[3]	Strassen, Luxembourg	70.48		673,713	45,529
DZ PRIVATBANK Singapore Ltd.[1,3]	Singapore, Singapore	100.00		8,996	-175
DZ Versicherungsvermittlung Gesellschaft mbH[5]	Frankfurt am Main	100.00		51	0
DZ Vierte Beteiligungsgesellschaft mbH[5]	Frankfurt am Main	100.00		287,187	0
e@syCredit Marketing und Vertriebs GmbH[1]	Nuremberg	100.00		25	0

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
Eagle Aircraft Leasing Limited[1]	George Town, Cayman Islands	0.00		0	0
EC Verwertungsgesellschaft 2 GmbH i.L.[1]	Eschenbach i.d.Opf.	100.00		1,839	-396
Elli LLC[1]	Majuro, Marshall Islands	0.00		0	0
ENDES Grundstücksverwaltungsgesellschaft mbH[1 5]	Eschborn	100.00		26	0
Englische Strasse 5 GmbH[1]	Wiesbaden	90.00		18,509	479
EPI Grundstücksverwaltungsgesellschaft mbH[1 5]	Eschborn	100.00		418	0
Europäische Genossenschaftsbank S. A.[1]	Strassen, Luxembourg	100.00		12,458	23
EXERT Grundstücksverwaltungsgesellschaft mbH[1 5]	Eschborn	100.00		26	0
Falcon Aircraft Leasing Limited i.L.[1]	Dublin, Ireland	0.00		0	0
Finassimoco S.p.A.[1]	Segrate (Mi), Italy	57.03		96,727	-111
Finch Aircraft Leasing Limited[1]	Dublin, Ireland	0.00		0	0
FKS-NAVIGIUM GmbH[1]	Eschborn	100.00		-238	-264
FLORIN GmbH[1]	Eschborn	100.00		53	28
Fundamenta-Lakáskassza Lakás-takarékpénztár Zrt.[1]	Budapest, Hungary	51.25		74	22
Fundamenta-Lakáskassza Pénzügyi Közvetítő Kft.[1]	Budapest, Hungary	100.00		3,245	1,042
GAF Active Life 1 Renditebeteiligungs-GmbH & Co. KG[1]	Nidderau	64.33		56,448	-1,696
GAF Active Life 2 Renditebeteiligungs-GmbH & Co. KG[1]	Nidderau	63.36		153,810	5,478
Gandari Shipping Pte. Ltd.[1]	Singapore, Singapore	0.00		0	0
GbR Dortmund Westenhellweg 39–41[1]	Wiesbaden	94.00	100.00	40,581	3,296
GENO Broker GmbH[5]	Frankfurt am Main	100.00		9,800	0
Genossenschaftlicher Informations Service GIS GmbH	Frankfurt am Main	100.00		4,039	73
Glen Campbell Opco LLC[1]	Majuro, Marshall Islands	0.00		0	0
Glencoe Shipping Holdco LLC[1]	Majuro, Marshall Islands	0.00		0	0
GMS Management und Service GmbH[1]	Nidderau	66.67		84	34
Gola Airfinance Ltd.[1]	Tokyo, Japan	100.00		0	-1
Goldberg Zweite Grundstücksverwaltungsgesellschaft Sütex mbH & Co. KG[1 6]	Eschborn	94.50	88.00	163	362
Green Eagle Investments N.V.[1]	Willemstad, Netherlands Antilles	0.00		0	0
Grundstücksverwaltungsgesellschaft Sütex mbH[1]	Eschborn	100.00		25	0
GWG 1. Wohn GmbH & Co. KG[1]	Stuttgart	100.00		2,000	316
GWG 2. Wohn GmbH & Co. KG[1]	Stuttgart	100.00		3,000	699
GWG 3. Wohn GmbH & Co. KG[1]	Stuttgart	100.00		7,000	1,301
GWG 4. Wohn GmbH & Co. KG[1]	Stuttgart	100.00		9,536	536
GWG Beteiligungsgesellschaft mbH[1]	Stuttgart	100.00		23	1
GWG Gesellschaft für Wohnungs- und Gewerbebau Baden-Württemberg AG[1]	Stuttgart	91.41		265,549	53,866
GWG ImmoInvest GmbH[1]	Stuttgart	94.90		6,153	853
GWG Wohnpark Sendling GmbH[1]	Stuttgart	94.00		2,377	-474
GZ-Immobilien-Management GmbH & Co. Objekt KG	Frankfurt am Main	100.00		-710	-3
GZ-Trust Consult GmbH i.L.	Stuttgart	100.00		496	-1
HANSEATICA Sechzehnte Grundbesitz Investitionsgesellschaft mbH & Co. KG[1]	Berlin	100.00		23,908	890
Havel Nordost Zweite Grossmobilien GmbH[1]	Eschborn	100.00		40	15
Hawk Aircraft Leasing Limited[1]	Dublin, Ireland	0.00		0	0
Hibiscus Aircraft Leasing Limited[1]	Floriana, Malta	0.00		0	0
Highlanders Aircraft Leasing (IRL) Ltd.[1]	Dublin, Ireland	100.00	0.00	0	0
Hollandse Scheepshypotheekbank N.V.[1]	Rotterdam, Netherlands	100.00		567	0
Hudson Services LLC[1]	Majuro, Marshall Islands	0.00		0	0
HumanProtect Consulting GmbH[1]	Cologne	100.00		215	99
Hypotheken-Management GmbH[1 5]	Mannheim	100.00		6,647	0
Ibon Leasing Limited[1]	George Town, Cayman Islands	100.00		-4	-4
Immo Kapitalanlage AG[1]	Vienna, Austria	94.50		6,971	0
Immobilien-Gesellschaft 'DG Bank-Turm, Frankfurt am Main, Westend' mbH & Co. KG des genossenschaftlichen Verbundes[1]	Frankfurt am Main	95.93		182,841	9,084
Immobilien-Verwaltungsgesellschaft 'DG BANK-Turm, Frankfurt am Main, Westend' mbH	Frankfurt am Main	100.00		52	17
IPConcept (Luxemburg) S.A.[1]	Strassen, Luxembourg	100.00		6,761	3,181
IPConcept (Schweiz) AG[1]	Zurich, Switzerland	100.00		4,947	500
ITF International Transport Finance Suisse AG[1]	Zurich, Switzerland	100.00		45,855	-9,382
Ivanhoe Shipping Opco LLC[1]	Majuro, Marshall Islands	0.00		0	0
IZD-Beteiligung S.à.r.l.[1]	Luxembourg, Luxembourg	99.50		21,852	-13
JASPIS GmbH[1]	Eschborn	100.00		41	16
JASPIS GmbH & Co. Immobilien KG[1 6]	Eschborn	100.00		6	18

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
KALAMOS GmbH[1]	Eschborn	100.00		55	30
KBIH Beteiligungsgesellschaft für Industrie und Handel mbH[1]	Frankfurt am Main	100.00		1,344	0
KISSELBERG Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		11	-1
KRAVAG Umweltschutz und Sicherheitstechnik GmbH[1]	Hamburg	100.00		204	10
KRAVAG-ALLGEMEINE Versicherungs-Aktiengesellschaft[1]	Hamburg	100.00		166,610	17,413
KRAVAG-LOGISTIC Versicherungs-Aktiengesellschaft[1]	Hamburg	51.00		88,738	12,488
KV MSN 27602 AIRCRAFT LIMITED[1]	Dublin, Ireland	0.00		0	0
Landes Canada Inc.[1]	Granby, Quebec, Canada	100.00		2,734	269
Landes de Mexico, S. de R. L. de C.V.[1]	Aguascalientes, AGS., Mexico	100.00		-11	-10
Landes Holding GmbH[1]	Isny im Allgäu	72.35	74.90	9,204	-1,035
Landes Hong Kong Limited[1]	Kwun Tong, Kowloon, Hong Kong	100.00		864	66
Landes Lederwarenfabrik GmbH[1]	Isny im Allgäu	100.00		6,691	0
Lantana Aircraft Leasing Limited[1]	Floriana, Malta	0.00		0	0
Leith Shipping LLC[1]	Majuro, Marshall Islands	0.00		0	0
LEKANIS GmbH[1]	Eschborn	100.00		40	15
LEKANIS GmbH & Co. Immobilien KG[1,6]	Eschborn	100.00		20	48
Lexi Limited[1]	George Town, Cayman Islands	100.00		113	113
Linton Shipping LLC[1]	Majuro, Marshall Islands	0.00		0	0
LISENE GmbH[1]	Eschborn	100.00		41	16
LITOS GmbH[1]	Eschborn	100.00		40	15
LogPay Financial Services GmbH[1,5]	Eschborn	100.00		3,750	0
LogPay Fuel Italia S.R.L.[1]	Bolzano, Italy	100.00		18	8
LogPay Fuel Spain S.L.U.[1]	Barcelona, Spain	100.00		0	0
LogPay Mobility Services GmbH[1]	Eschborn	100.00		0	0
LogPay Transport Services GmbH[1,5]	Eschborn	90.91		550	0
Loki LLC[1]	Majuro, Marshall Islands	0.00		0	0
Lombard Bérlet Gépjármüpark-kezelö és Kereskedelmi Korlátolt Felelösségû Társaság[1]	Szeged, Hungary	100.00		8,697	830
Lombard Ingatlan Lízing Zártkörûen Mûködõ Részvénytársaság[1]	Szeged, Hungary	100.00		2,583	986
Lombard Pénzügyi és Lizing Zártkörûen Mûködõ Részvénytársaság[1]	Szeged, Hungary	96.76		8,862	-8,337
Maple Leaf Shipping Holdco LLC[1]	Majuro, Marshall Islands	0.00		0	0
MD Aviation Capital Pte. Ltd.[1]	Singapore, Singapore	0.00		0	0
MDAC 1 Pte Ltd.[1]	Singapore, Singapore	0.00		0	0
MDAC 11 Pte Ltd.[1]	Singapore, Singapore	0.00		0	0
MDAC 2 Pte Ltd.[1]	Singapore, Singapore	0.00		0	0
MDAC 3 Pte Ltd.[1]	Singapore, Singapore	0.00		0	0
MDAC 4 Pte Ltd.[1]	Singapore, Singapore	0.00		0	0
MDAC 5 Pte. Ltd.[1]	Singapore, Singapore	0.00		0	0
MDAC 6 Pte Ltd.[1]	Singapore, Singapore	0.00		0	0
MDAC 7 (Ireland) Ltd.[1]	Dublin, Ireland	0.00		0	0
MDAC 8 Pte Ltd.[1]	Singapore, Singapore	0.00		0	0
MDAC 9 Pte Ltd.[1]	Singapore, Singapore	0.00		0	0
MDAC Malta Ltd.[1]	Floriana, Malta	0.00		0	0
Mertus einhundertsiebte GmbH[1]	Frankfurt am Main	100.00		24	0
MI-Fonds 384 Metzler Investment GmbH[1]	Frankfurt am Main	0.00		0	0
MI-Fonds 388 Metzler Investment GmbH[1]	Frankfurt am Main	0.00		0	0
MI-Fonds 391 Metzler Investment GmbH[1]	Frankfurt am Main	0.00		0	0
MI-Fonds 392 Metzler Investment GmbH[1]	Frankfurt am Main	0.00		0	0
MI-Fonds F 57 Metzler Investment GmbH[1]	Frankfurt am Main	0.00		0	0
MI-Fonds F 59 Metzler Investment GmbH[1]	Frankfurt am Main	0.00		0	0
MI-Fonds J01 Metzler Investment GmbH[1]	Frankfurt am Main	0.00		0	0
MI-Fonds J03 Metzler Investment GmbH[1]	Frankfurt am Main	0.00		0	0
MINTAKA GmbH[1]	Eschborn	100.00		44	19
MINTAKA GmbH & Co. Immobilien KG[1,6]	Eschborn	100.00		-63	-20
MODULUS GmbH[1]	Eschborn	100.00		49	23
MoRe Mobile Ressourcen GmbH[1,5]	Mannheim	100.00		25	0
Morgenstern Miet + Leasing GmbH[1]	Eschborn	95.00		26	0
Mount Kaba Shipping LLC[1]	Majuro, Marshall Islands	0.00		0	0
Mount Kinabalu LLC[1]	Majuro, Marshall Islands	0.00		0	0
Mount Mulu LLC[1]	Majuro, Marshall Islands	0.00		0	0

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
Mount Pleasant Shipping Pte. Ltd.[1]	Singapore, Singapore	0.00		0	0
Mount Rinjani Shipping Pte. Ltd.[1]	Singapore, Singapore	0.00		0	0
Mount Santubong Ltd.[1]	Labuan, Malaysia	0.00		0	0
MS 'GEORG SCHULTE' Schifffahrtsgesellschaft mbH & Co. KG i. L.[1]	Hamburg	78.77		12,499	0
MS 'Mumbai Trader' GmbH & Co. KG[1]	Bremen	0.00		0	0
MSU Management-, Service- und Unternehmensberatung GmbH[1]	Landau in der Pfalz	74.00		651	198
NALINUS GmbH[1]	Frankfurt am Main	83.00		2,029	87
Nedship Shipping B.V.[1]	Shiphol, Netherlands	100.00		1,350	6,229
NELO Dritte GmbH[1]	Eschborn	100.00		46	21
NELO Erste GmbH[1]	Eschborn	100.00		25	0
NELO Fünfte GmbH[1]	Eschborn	100.00		43	18
NELO Zweite GmbH[1]	Eschborn	100.00		40	15
Netherlands Shipmortgage Corporation Ltd.[1]	Hamilton, Bermuda	100.00		0	0
NF Nordstrand GmbH & Co. Heidenkampsweg 100 Nord KG[1]	Norderfriedrichskoog	94.00	49.00	0	95
NF Nordstrand GmbH & Co. Heidenkampsweg 100 Süd KG[1]	Norderfriedrichskoog	94.00	49.00	0	22
NFC Labuan Shipleasing I Ltd.[1]	Labuan, Malaysia	0.00		0	0
NFC Shipping Fund C LLC[1]	Majuro, Marshall Islands	0.00		0	0
NFC Shipping Fund II LLC[1]	Majuro, Marshall Islands	0.00		0	0
NOMAC AIRCRAFT LEASING (IRL) Ltd. i.L.[1]	Dublin, Ireland	0.00		0	0
NOVA Achte GmbH[1]	Eschborn	100.00		45	20
NOVA Elfte GmbH[1]	Eschborn	100.00		20	-1
NOVA Neunte GmbH[1]	Eschborn	100.00		40	15
NOVA Siebte GmbH[1]	Eschborn	100.00		41	16
NTK Immobilien GmbH[1]	Hamburg	100.00		41	0
NTK Immobilien GmbH & Co. Management KG[2]	Hamburg	100.00		723	-498
Ocean Container II[1]	Oslo, Norway	0.00		0	0
Ocean Giant LLC[1]	Majuro, Marshall Islands	0.00		0	0
Odin LLC[1]	Majuro, Marshall Islands	0.00		0	0
Old Winterport Corp.[1]	Portland, USA	100.00		0	0
PARLA Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		24	0
Pascon GmbH[1]	Wiesbaden	100.00		25	0
Paul Ernst Versicherungsvermittlungs mbH[1]	Hamburg	51.00		22	12
PAVONIS GmbH[1]	Eschborn	100.00		54	29
PCAM Issuance II SA Issue RV AVL 001[1]	Luxembourg, Luxembourg	0.00		0	0
PDZ Personaldienste & Zeitarbeit GmbH[5]	Darmstadt	100.00		60	0
Pension Consult-Beratungsgesellschaft für Altersvorsorge mbH[1]	Munich	100.00		1,188	85
Philip Trading Opco LLC[1]	Majuro, Marshall Islands	0.00		0	0
Puffin Aircraft Leasing Ltd.[1]	Dublin, Ireland	0.00		0	0
Q, Inc.[1]	San Francisco, USA	63.17		0	0
Quoniam Asset Management GmbH[1]	Frankfurt am Main	88.00	100.00	25,540	15,699
Quoniam Funds Selection SICAV - Global Credit Libor EUR I[1]	Luxembourg, Luxembourg	0.00		0	0
R+V Allgemeine Versicherung Aktiengesellschaft[1 5]	Wiesbaden	95.00		774,177	0
R+V Deutschland Real (RDR)[1]	Hamburg	0.00		0	0
R+V Dienstleistungs GmbH[1]	Wiesbaden	100.00		30	3
R+V Direktversicherung AG[1 5]	Wiesbaden	100.00		13,000	0
R+V Erste Anlage GmbH[1]	Wiesbaden	100.00		1,072	-4
R+V Gruppenpensionsfonds Service GmbH[1]	Munich	100.00		72	3
R+V Immobilienfonds OIK Nr. 4[1]	Frankfurt am Main	0.00		0	0
R+V INTERNATIONAL BUSINESS SERVICES Ltd., Dublin[1]	Dublin, Ireland	100.00		1,053	-1,986
R+V KOMPOSIT Holding GmbH[1 5]	Wiesbaden	100.00		1,801,622	0
R+V Krankenversicherung AG[1]	Wiesbaden	100.00		63,485	5,500
R+V Kureck Immobilien GmbH[1]	Wiesbaden	100.00		85	4
R+V Leben Wohn GmbH & Co. KG[1]	Wiesbaden	100.00		93,057	978
R+V Lebensversicherung Aktiengesellschaft[1 5]	Wiesbaden	100.00		404,981	0
R+V Luxembourg Lebensversicherung S.A.[1]	Strassen, Luxembourg	100.00		277,502	37,905
R+V Mannheim P2 GmbH[1]	Wiesbaden	94.00		62,154	2,166
R+V Pensionsfonds AG[1]	Wiesbaden	100.00		85,372	400
R+V Pensionskasse AG[1]	Wiesbaden	100.00		59,972	500
R+V Personen Holding GmbH[1 5]	Wiesbaden	100.00		679,064	0
R+V Real Estate Belgium N.V./S.A.[1]	Brussels, Belgium	100.00		2,067	-69

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
R+V Rechtsschutz-Schadenregulierungs-GmbH[1]	Wiesbaden	100.00		84	31
R+V Service Center GmbH[1 5]	Wiesbaden	100.00		2,869	0
R+V Service Holding GmbH[1 5]	Wiesbaden	100.00		171,910	0
R+V Treuhand GmbH[1]	Wiesbaden	100.00		41	4
R+V Versicherung AG[5]	Wiesbaden	77.02		2,149,774	0
RAS Grundstücksverwaltungsgesellschaft mbH[1]	Eschborn	100.00		55	0
RAS Grundstücksverwaltungsgesellschaft mbH & Co. Objektbeteiligungs KG[1 6]	Eschborn	100.00		-23	5
Rathlin Airfinance Ltd.[1]	Tokyo, Japan	100.00		0	0
RC II S.a.r.l.[1]	Luxembourg, Luxembourg	90.00		9,136	94
ReiseBank Aktiengesellschaft[1 5]	Frankfurt am Main	100.00		17,724	0
RISALIS GmbH[1]	Eschborn	100.00		39	14
RUBINOS GmbH[1]	Eschborn	100.00		160	135
RUV Agenturberatungs GmbH[1]	Wiesbaden	100.00		405	138
S1 Offshore Pte. Ltd.[1]	Singapore, Singapore	100.00		0	0
S2 Shipping and Offshore Ptd Ltd[1]	Singapore, Singapore	0.00		0	0
SAREMA GmbH[1]	Eschborn	100.00		46	21
Scheepvaartschappij Ewout B.V.[1]	Rotterdam, Netherlands	0.00		0	0
Schuster Versicherungsmakler GmbH[1]	Bielefeld	51.00		163	41
Schuster Versicherungsservice GmbH[1]	Bielefeld	100.00		26	0
Schwäbisch Hall Facility Management GmbH[1]	Schwäbisch Hall	51.00		3,921	34
Schwäbisch Hall Kreditservice GmbH[1 5]	Schwäbisch Hall	100.00		27,775	0
Schwäbisch Hall Wohnen GmbH Gesellschaft für wohnwirtschaftliche Dienstleistungen[1]	Schwäbisch Hall	100.00		644	11
SECURON Hanse Versicherungsmakler GmbH[1]	Hamburg	51.00		28	-2
SECURON Versicherungsmakler GmbH[1]	Munich	51.00		660	317
Shamrock Trading Opco LLC[1]	Majuro, Marshall Islands	0.00		0	0
Shark Aircraft Leasing (Ireland) Limited i.L.[1]	Dublin, Ireland	0.00		0	0
Shipping Capital Antilles N.V.[1]	Willemstad, Netherlands Antilles	100.00		22,901	-1
SHT Schwäbisch Hall Training GmbH[1]	Schwäbisch Hall	100.00		5,331	590
SIIM Fund I (Shipping and Intermodal Investment Management Fund)[1]	Majuro, Marshall Islands	0.00		0	0
SIIM Fund II (Shipping and Intermodal Investment Management Fund II) LLC[1]	Majuro, Marshall Islands	0.00		0	0
SIKINOS GmbH[1]	Eschborn	100.00		53	28
SINALOA Aircraft Leasing Limited[1]	Floriana, Malta	0.00		0	0
Sprint Sanierung GmbH[1]	Cologne	100.00		31,003	1,234
SRF I Limited[1]	Floriana, Malta	0.00		0	0
SRF II Limited[1]	Floriana, Malta	0.00		0	0
SRF III Limited[1]	Floriana, Malta	0.00		0	0
Stani Trading Opco LLC[1]	Majuro, Marshall Islands	0.00		0	0
Stephenson Capital Limited[1]	George Town, Cayman Islands	0.00		0	0
Stormers Aircraft Leasing (Malta) Ltd.[1]	Floriana, Malta	100.00	0.00	0	0
Taigetos Funding LLC[1]	Majuro, Marshall Islands	0.00		0	0
Taigetos II LLC[1]	Majuro, Marshall Islands	0.00		0	0
Taigetos III LLC[1]	Majuro, Marshall Islands	0.00		0	0
TeamBank AG Nürnberg[2 5]	Nuremberg	92.06		489,725	0
Technology DZ Venture Capital Fund I GmbH & Co. KG i.L.[1]	Munich	68.29		9,611	7,295
TEGANON GmbH[1]	Eschborn	100.00		41	16
TEGANON GmbH & Co. Immobilien KG[1 6]	Eschborn	100.00		21	19
Terra Maris I LLC[1]	Majuro, Marshall Islands	0.00		0	0
TEU Management Company N.V.[1]	Willemstad, Netherlands Antilles	100.00	0.00	0	0
Thor LLC[1]	Majuro, Marshall Islands	0.00		0	0
Tiger Aircraft Leasing (UK) Limited[1]	London, UK	0.00		0	0
TILIAS GmbH[1]	Eschborn	100.00		43	18
TOPAS GmbH[1]	Eschborn	100.00		48	23
TUKANA GmbH[1]	Eschborn	100.00		42	17
UI Vario: 2 issued by Union Investment Luxembourg S.A.[1]	Luxembourg, Luxembourg	0.00		0	0
UII Issy 3 Moulins SARL[1]	Paris, France	100.00		8	-2
UII Verwaltungsgesellschaft mbH[1]	Hamburg	100.00		0	0
UIN Union Investment Institutional Fonds Nr. 560[1]	Frankfurt am Main	0.00		0	0
UIN Union Investment Institutional Fonds Nr. 578[1]	Frankfurt am Main	0.00		0	0
UIN Union Investment Institutional Fonds Nr. 635[1]	Frankfurt am Main	0.00		0	0

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
UIN Union Investment Institutional Fonds Nr. 669[1]	Frankfurt am Main	0.00		0	0
UIN Union Investment Institutional Fonds Nr. 715[1]	Frankfurt am Main	0.00		0	0
UIN Union Investment Institutional Fonds Nr. 716[1]	Frankfurt am Main	0.00		0	0
UIN Union Investment Institutional Fonds Nr. 772[1]	Frankfurt am Main	0.00		0	0
UIN Union Investment Institutional Fonds Nr. 817[1]	Frankfurt am Main	0.00		0	0
UIN Union Investment Institutional Fonds Nr. 825[1]	Frankfurt am Main	0.00		0	0
UIN Union Investment Institutional Fonds Nr. 833[1]	Frankfurt am Main	0.00		0	0
UIN Union Investment Institutional Fonds Nr. 834[1]	Frankfurt am Main	0.00		0	0
UIN Union Investment Institutional Fonds Nr. 839[1]	Frankfurt am Main	0.00		0	0
UIR FRANCE 1 S.a.r.l.[1]	Paris, France	100.00		33	2
UIR FRANCE 2 S.a.r.l.[1]	Paris, France	100.00		35	2
UIR Verwaltungsgesellschaft mbH[1]	Hamburg	100.00		86	1
UMB Unternehmens-Managementberatungs GmbH[1]	Wiesbaden	100.00		1,452	528
UniAkcje Biopharma[1]	Warsaw, Poland	0.00		0	0
UniAkcje Globalny Dywidendowy[1]	Warsaw, Poland	0.00		0	0
UniAkcje Long Short FIZ[1]	Warsaw, Poland	0.00		0	0
UniAktywny Pieniezny[1]	Warsaw, Poland	0.00		0	0
UNIBESSA[1]	Warsaw, Poland	0.00		0	0
UniDynamiczna Alokacja Aktywow[1]	Warsaw, Poland	0.00		0	0
UniInstitutional European Mixed Trend[1]	Luxembourg, Luxembourg	0.00		0	0
UniInstitutional Global Bonds Select[1]	Luxembourg, Luxembourg	0.00		0	0
UniObligacje High Yield FIZ[1]	Warsaw, Poland	0.00		0	0
Union Asset Management Holding AG[2]	Frankfurt am Main	78.76		758,179	369,046
Union Investment Austria GmbH[1]	Vienna, Austria	100.00		10,816	5,724
Union Investment Financial Services S.A.[1]	Luxembourg, Luxembourg	100.00		17,954	2,899
Union Investment Institutional GmbH[1,5]	Frankfurt am Main	100.00		63,970	0
Union Investment Institutional Property GmbH[1]	Hamburg	90.00		14,960	2,683
Union Investment Luxembourg S.A.[1]	Luxembourg, Luxembourg	100.00		226,147	94,478
Union Investment Privatfonds GmbH[1,5]	Frankfurt am Main	100.00		285,842	0
Union Investment Real Estate Asia Pacific Pte. Ltd.[1]	Singapore, Singapore	100.00		1,910	729
Union Investment Real Estate France S.A.S.[1]	Paris, France	100.00		2,934	1,315
Union Investment Real Estate GmbH[2]	Hamburg	94.50		151,881	77,125
Union Investment Service Bank AG[1,5]	Frankfurt am Main	100.00		42,115	0
Union Investment Towarzystwo Funduszy Inwestycyjnych S. A.[1]	Warsaw, Poland	100.00		26,740	7,072
Union IT-Services GmbH[1,5]	Frankfurt am Main	100.00		3,348	0
Union Service-Gesellschaft mbH[1,5]	Frankfurt am Main	100.00		7,060	0
UniStrategia Opcja na Zysk[1]	Warsaw, Poland	0.00		0	0
UniStrategii Dluznych FIZ[1]	Warsaw, Poland	0.00		0	0
Unterstützungskasse der Condor Versicherungsgesellschaften GmbH[1]	Hamburg	66.67		26	0
VAUTID (SHANGHAI) Wear Resistant Material Trading Co. Ltd.[1]	Shanghai, China	100.00		1,181	486
VAUTID Austria GmbH[1]	Marchtrenk, Austria	100.00		628	135
VAUTID GmbH[1]	Ostfildern	82.51		3,176	635
Vautid North America, Inc.[1]	Carnegie, USA	0.00	100.00	-268	-44
VB Mündel-Rent für VB-Nostro 1[1]	Vienna, Austria	0.00		0	0
VisualVest GmbH[1]	Frankfurt am Main	100.00		2,525	-4,165
VMB Vorsorgemanagement für Banken GmbH[1]	Overath	90.00		116	48
VR BKE Beratungsgesellschaft für Klima & Energie GmbH i.L.[1]	Wiesbaden	66.67		140	-327
VR DISKONTBANK GmbH[1,5]	Eschborn	100.00		71,147	0
VR Equitypartner Beteiligungskapital GmbH & Co. KG UBG[2]	Frankfurt am Main	100.00		8,240	596
VR Equitypartner GmbH[3]	Frankfurt am Main	78.00		84,836	21,021
VR Equitypartner Management GmbH[1]	Frankfurt am Main	100.00		440	-49
VR FACTOREM GmbH[1,5]	Eschborn	100.00		39,385	0
VR GbR[2]	Frankfurt am Main	88.75		235,942	90,975
VR Hausbau AG[1]	Stuttgart	94.48		2,750	0
VR HYP GmbH[1]	Hamburg	100.00		25	0
VR Kreditservice GmbH[1,5]	Hamburg	100.00		25	0
VR Real Estate GmbH[1]	Hamburg	100.00		24	0
VR WERT Gesellschaft für Immobilienbewertung mbH[1,5]	Hamburg	100.00		100	0
VR-IMMOBILIEN-LEASING GmbH[1,5]	Eschborn	100.00		14,123	0
VRL-Beteiligungs GmbH[1]	Eschborn	100.00		31	2

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
VR-LEASING ABYDOS GmbH[1]	Eschborn	100.00		56	31
VR-LEASING AKANTHUS GmbH[1]	Eschborn	100.00		42	17
VR-LEASING AKANTHUS GmbH & Co. Immobilien KG[16]	Eschborn	100.00		22	20
VR-LEASING Aktiengesellschaft[5]	Eschborn	83.46		211,070	0
VR-LEASING ALDEBARA GmbH[1]	Eschborn	100.00		42	16
VR-LEASING AMETRIN GmbH[1]	Eschborn	100.00		49	24
VR-LEASING AMETRIN GmbH & Co. Immobilien KG[16]	Eschborn	100.00		30	29
VR-LEASING ANDROS GmbH[1]	Eschborn	100.00		47	22
VR-LEASING ANDROS GmbH & Co. Immobilien KG[16]	Eschborn	100.00		27	27
VR-LEASING ARINA GmbH[1]	Eschborn	100.00		47	22
VR-LEASING ARKI GmbH[1]	Eschborn	100.00		88	65
VR-LEASING ARRIANUS GmbH[1]	Eschborn	100.00		40	15
VR-LEASING ASARO GmbH[1]	Eschborn	100.00		47	1
VR-LEASING ASINE GmbH[1]	Eschborn	100.00		47	22
VR-LEASING ASOPOS GmbH[1]	Eschborn	100.00		29	2
VR-LEASING ASOPOS GmbH & Co. Immobilien KG[16]	Eschborn	100.00		3	16
VR-LEASING ATRIA GmbH[1]	Eschborn	100.00		40	15
VR-LEASING AVENTURIN GmbH[1]	Eschborn	100.00		40	15
VR-LEASING BETA GmbH[1]	Eschborn	100.00		44	19
VR-LEASING BETA GmbH & Co. Immobilien KG[16]	Eschborn	100.00		24	23
VR-Leasing Beteiligungs GmbH[1]	Eschborn	100.00		54,631	9,431
VR-LEASING DELOS GmbH[1]	Eschborn	100.00		45	20
VR-LEASING DELOS GmbH & Co. Immobilien KG[16]	Eschborn	100.00		26	24
VR-LEASING DIVO GmbH[1]	Eschborn	100.00		55	30
VR-LEASING DIVO GmbH & Co. Immobilien KG[16]	Eschborn	6.00	76.00	41	37
VR-LEASING DOBAS GmbH & Co. Immobilien KG[16]	Eschborn	100.00		47	46
VR-LEASING ERIDA GmbH[1]	Eschborn	100.00		37	4
VR-LEASING FABIO GmbH[1]	Eschborn	100.00		37	11
VR-LEASING FACTA GmbH[1]	Eschborn	100.00		25	0
VR-LEASING FAGURA GmbH & Co. Erste Immobilien KG[16]	Eschborn	100.00		13	11
VR-LEASING FAGUS GmbH[1]	Eschborn	100.00		25	0
VR-LEASING FARINA GmbH[1]	Eschborn	100.00		37	12
VR-LEASING FIXUM GmbH[1]	Eschborn	100.00		37	12
VR-LEASING FLAVUS GmbH[1]	Eschborn	100.00		39	14
VR-LEASING FLAVUS GmbH & Co. Immobilien KG[16]	Eschborn	100.00		-1,465	-48
VR-LEASING FORTUNA GmbH[1]	Eschborn	100.00		25	0
VR-LEASING FULVIUS GmbH[1]	Eschborn	100.00		48	23
VR-LEASING IKANA GmbH[1]	Eschborn	100.00		53	28
VR-LEASING IKANA GmbH & Co. Immobilien KG[16]	Eschborn	6.00	76.00	7	30
VR-LEASING Immobilien-Holding GmbH & Co. KG[16]	Eschborn	94.80	95.91	151	203
VR-LEASING IRIS GmbH[1]	Eschborn	100.00		38	13
VR-LEASING ISORA GmbH[1]	Eschborn	100.00		39	14
VR-LEASING KOSMOS GmbH[15]	Eschborn	100.00		89	0
VR-LEASING LEROS GmbH[1]	Eschborn	100.00		38	13
VR-LEASING LIMNOS GmbH[1]	Eschborn	100.00		42	17
VR-LEASING LOTIS GmbH[1]	Eschborn	100.00		57	32
VR-LEASING LYRA GmbH[1]	Eschborn	100.00		53	28
VR-LEASING LYRA GmbH & Co. Immobilien KG[16]	Eschborn	6.00	76.00	33	39
VR-LEASING MADIUM GmbH[1]	Eschborn	100.00		48	23
VR-LEASING MADIUM GmbH & Co. Immobilien KG[16]	Eschborn	100.00		23	28
VR-LEASING MADRAS GmbH[1]	Eschborn	100.00		323	129
VR-LEASING MADURA GmbH[1]	Eschborn	100.00		126	101
VR-LEASING MAGADIS GmbH[1]	Eschborn	100.00		70	45
VR-LEASING MALAKON GmbH[1]	Eschborn	100.00		36	11
VR-LEASING MANEGA GmbH[1]	Eschborn	100.00		38	13
VR-LEASING MANIOLA GmbH[1]	Eschborn	100.00		39	13
VR-LEASING MARKASIT GmbH[1]	Eschborn	100.00		59	34
VR-LEASING MARKASIT GmbH & Co. Immobilien KG[16]	Eschborn	100.00		-43	51
VR-LEASING MAROS GmbH[1]	Eschborn	100.00		41	16
VR-LEASING MARTES GmbH[1]	Eschborn	100.00		39	13

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
VR-LEASING MAXIMA GmbH[1]	Eschborn	100.00		25	0
VR-LEASING MELES GmbH[1]	Eschborn	100.00		40	14
VR-LEASING MENTHA GmbH[1]	Eschborn	100.00		35	9
VR-LEASING MENTUM GmbH[1]	Eschborn	100.00		47	21
VR-LEASING MERGUS GmbH[1]	Eschborn	100.00		44	19
VR-LEASING METIS GmbH[1]	Eschborn	100.00		252	227
VR-LEASING METRO GmbH & Co. Objekte Rhein-Neckar KG[16]	Eschborn	100.00		-759	187
VR-LEASING MILETOS GmbH[1]	Eschborn	100.00		44	19
VR-LEASING MILIUM GmbH[1]	Eschborn	100.00		39	14
VR-LEASING MILVUS GmbH[1]	Eschborn	100.00		160	134
VR-LEASING MORIO GmbH[1]	Eschborn	100.00		128	102
VR-LEASING MUNDA GmbH[1]	Eschborn	100.00		71	45
VR-LEASING MUNDA GmbH & Co. Immobilien KG[16]	Eschborn	100.00		55	68
VR-LEASING MUSCAN GmbH[1]	Eschborn	100.00		35	9
VR-LEASING MUSCARI GmbH[1]	Eschborn	100.00		213	188
VR-LEASING MUSTELA GmbH[1]	Eschborn	100.00		52	27
VR-LEASING NALANDA GmbH[1]	Eschborn	100.00		43	17
VR-LEASING NAPOCA GmbH[1]	Eschborn	100.00		39	14
VR-LEASING NARUGO GmbH[1]	Eschborn	100.00		25	0
VR-LEASING NATANTIA GmbH[1]	Eschborn	100.00		27	2
VR-LEASING NAVARINO GmbH[1]	Eschborn	100.00		65	39
VR-LEASING NAVARINO GmbH & Co. Immobilien KG[16]	Eschborn	100.00		-579	128
VR-LEASING NEKTON GmbH[1]	Eschborn	100.00		226	200
VR-LEASING NESTOR GmbH[1]	Eschborn	100.00		48	23
VR-LEASING NETTA GmbH[1]	Eschborn	100.00		56	24
VR-LEASING NETTA GmbH & Co. Immobilien KG[16]	Eschborn	94.00	51.00	11	31
VR-LEASING NOVA Fünfte GmbH[1]	Eschborn	100.00		55	30
VR-LEASING NOVA Vierte GmbH[1]	Eschborn	100.00		55	30
VR-LEASING ONDATRA GmbH[1]	Eschborn	100.00		54	29
VR-LEASING ONYX GmbH[1]	Eschborn	100.00		39	14
VR-LEASING ONYX GmbH & Co. Immobilien KG[16]	Eschborn	100.00		-1,310	352
VR-LEASING OPAL GmbH[1]	Eschborn	100.00		28	3
VR-LEASING OPAVA GmbH[1]	Eschborn	100.00		152	125
VR-LEASING OPAVA GmbH & Co. Immobilien KG[16]	Eschborn	100.00		-2,824	133
VR-LEASING OPHIR GmbH[1]	Eschborn	100.00		32	6
VR-LEASING OPHIR GmbH & Co. Immobilien KG[16]	Eschborn	100.00	75.50	-8,057	607
VR-LEASING OPTIMA GmbH[1]	Eschborn	100.00		72	46
VR-LEASING ORDO GmbH[1]	Eschborn	100.00		38	12
VR-LEASING OSMERUS GmbH[1]	Eschborn	100.00		31	6
VR-LEASING PAROS GmbH[1]	Eschborn	100.00		35	10
VR-LEASING RUSSLAND Holding GmbH[1]	Eschborn	100.00		538	0
VR-LEASING SALA GmbH[1]	Eschborn	100.00		10	0
VR-LEASING SALIX GmbH[1]	Eschborn	100.00		75	49
VR-LEASING SALMO GmbH[1]	Eschborn	100.00		176	150
VR-LEASING SALONA GmbH[1]	Eschborn	100.00		35	9
VR-LEASING SALTA GmbH[1]	Eschborn	100.00		25	0
VR-LEASING SALVIA GmbH[1]	Eschborn	100.00		46	20
VR-LEASING SALVIS GmbH[1]	Eschborn	100.00		22	0
VR-LEASING SAMARA GmbH[1]	Eschborn	100.00		87	61
VR-LEASING SANAGA GmbH[1]	Eschborn	100.00		45	20
VR-LEASING SANAGA GmbH & Co. Immobilien KG[16]	Eschborn	100.00		25	23
VR-LEASING SANIDOS GmbH[1]	Eschborn	100.00		43	18
VR-LEASING SARITA GmbH[1]	Eschborn	100.00		41	16
VR-LEASING SASKIA GmbH[1]	Eschborn	100.00		41	16
VR-LEASING SEGUSIO GmbH[1]	Eschborn	100.00		24	0
VR-LEASING SEPIA GmbH[1]	Eschborn	100.00		31	5
VR-LEASING SIGUNE GmbH[1]	Eschborn	100.00		42	17
VR-LEASING SIMA GmbH[1]	Eschborn	100.00		49	23
VR-LEASING SINABIS GmbH[1]	Eschborn	100.00		34	8
VR-LEASING SIRIUS GmbH[1]	Eschborn	100.00		49	24

SUBSIDIARIES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
VR-LEASING SIRIUS GmbH & Co. Immobilien KG[1 6]	Eschborn	100.00		30	29
VR-LEASING SOLIDUS Dreizehnte GmbH[1]	Eschborn	100.00		45	20
VR-LEASING SOLIDUS Dritte GmbH[1]	Eschborn	100.00		25	0
VR-LEASING SOLIDUS Elfte GmbH[1]	Eschborn	100.00		45	20
VR-LEASING SOLIDUS Erste GmbH[1]	Eschborn	100.00		111	86
VR-LEASING SOLIDUS Fünfte GmbH[1]	Eschborn	100.00		29	4
VR-LEASING SOLIDUS Neunte GmbH[1]	Eschborn	100.00		35	10
VR-LEASING SOLIDUS Neunzehnte GmbH[1]	Eschborn	100.00		43	18
VR-LEASING SOLIDUS Sechzehnte GmbH[1]	Eschborn	100.00		41	16
VR-LEASING SOLIDUS Siebte GmbH[1]	Eschborn	100.00		137	112
VR-LEASING SOLIDUS Vierzehnte GmbH[1]	Eschborn	100.00		40	15
VR-LEASING SOLIDUS Zehnte GmbH[1]	Eschborn	100.00		24	0
VR-LEASING SOLIDUS Zweite GmbH[1]	Eschborn	100.00		50	25
VR-LEASING SOLIDUS Zwölfte GmbH[1]	Eschborn	100.00		46	21
VR-LEASING SOREX GmbH[1]	Eschborn	100.00		20	0
VR-LEASING TELLUR GmbH[1]	Eschborn	100.00		46	21
Wadi Funding LLC[1]	Majuro, Marshall Islands	0.00		0	0
Wadi Woraya I LLC[1]	Majuro, Marshall Islands	0.00		0	0
Wadi Woraya III LLC[1]	Majuro, Marshall Islands	0.00		0	0
Wasps Aircraft Leasing (Ireland) Limited i.L.	Dublin, Ireland	0.00		0	0
Waverley Shipping Opco LLC[1]	Majuro, Marshall Islands	0.00		0	0
WBS Wohnwirtschaftliche Baubetreuungs- und Servicegesellschaft mbH[1]	Stuttgart	94.90		14,224	1,626
Weilchensee 779. V V GmbH[1]	Munich	100.00		25	0
Weinmann GmbH & Co. Objekt Eichwald KG[1 6]	Eschborn	100.00		50	48
ZPF Asia Pacific Pte. Ltd.[1]	Singapore, Singapore	100.00		0	0
ZPF Holding GmbH i.L.[1]	Siegelsbach	95.58		21	-680
ZPF Industrial Furnaces (Taicang) Co. Ltd.[1]	Taicang, China	100.00		0	0
ZPF Services GmbH i.L[1]	Heilbronn	100.00		61	36
ZPF Therm Maschinenbau GmbH i.L.[1]	Siegelsbach	100.00		5,371	-338

JOINT VENTURES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
AerCap Partners I Ltd.[1]	Shannon, Ireland	50.00	0.00	0	0
AerCap Partners II Ltd.[1]	Shannon, Ireland	0.00		0	0
BAU + HAUS Management GmbH[1]	Wiesbaden	50.00		11,244	885
BEA Union Investment Management Limited[1]	Hong Kong, Hong Kong	49.00		57,449	7,483
Capital Equipment Management Holding GmbH[1]	Hamburg	50.00		17	-2
Ceskomoravska stavebni sporitelna a.s.[1]	Prague, Czech Republic	45.00		364,442	42,926
D8 Product Tankers I LLC[1]	Majuro, Marshall Islands	0.00		0	0
D8 Product Tankers Investments LLC[1]	Majuro, Marshall Islands	0.00		0	0
D8 Product Tankers Ltd.[1]	Singapore, Singapore	0.00		0	0
Deucalion MC Engine Leasing (Ireland) Ltd.[1]	Dublin, Ireland	0.00		0	0
Deutsche WertpapierService Bank AG	Frankfurt am Main	50.00		212,335	1,131
DGVR Alpha Mobilien-Verwaltungsgesellschaft mbH[1]	Eschborn	50.00		26	-1
DUO PLAST Holding GmbH[1]	Lauterbach	47.43		12,860	358
DZ BANK Galerie im Städel Kunstverwaltungsgesellschaft mbH	Frankfurt am Main	50.00		19	0
First BD Feederships Shipping Limited[1]	St. John's, Antigua and Barbuda	0.00		0	0
GMS Holding GmbH[1]	Hamburg	58.89	45.00	0	0
Herakleitos 3050 LLC[1]	Majuro, Marshall Islands	50.00		0	0
Intermodal Investment Fund IV LLC[1]	Majuro, Marshall Islands	0.00		0	0
Intermodal Investment Fund VIII LLC[1]	Majuro, Marshall Islands	50.00	0.00	0	0
IZD-Holding S.à.r.l.[1]	Luxembourg, Luxembourg	50.30	50.00	39,251	-88
Leuna Tenside Holding GmbH[1]	Leuna	50.00		0	0
MS Oceana Schifffahrtsgesellschaft mbH & Co. KG[1]	Hamburg	50.00	0.00	0	0
MS Octavia Schifffahrtsgesellschaft mbH & Co. KG[1]	Hamburg	50.00	0.00	0	0
Prvá stavebná sporitel'na, a.s.[1]	Bratislava, Slovakia	32.50		237,168	22,415
R+V Kureck Immobilien GmbH Grundstücksverwaltung Braunschweig[1]	Wiesbaden	50.00		8,328	572
Raiffeisen Banca Pentru Locuinte S.A.[1]	Bucharest, Romania	33.32		15,401	390
TAG ASSET Management LLC[1]	Majuro, Marshall Islands	0.00		0	0
VB-Leasing International Holding GmbH[1]	Vienna, Austria	50.00		212,490	143,017
Versicherungs-Vermittlungsgesellschaft des Sächsischen Landesbauernverbandes mbH[1]	Dresden	50.00		180	21
Versicherungs-Vermittlungsgesellschaft mbH des Bauernverbandes Mecklenburg-Vorpommern e.V. (VVB)[1]	Neubrandenburg	50.00		149	8
Versicherungs-Vermittlungsgesellschaft mbH des Landesbauernverbandes Brandenburg (VVB)[1]	Teltow	50.00		33	3
Versicherungs-Vermittlungsgesellschaft mbH des Landesbauernverbandes Sachsen-Anhalt e.V. (VVB)[1]	Magdeburg	50.00		26	1
VR Consultingpartner GmbH[2]	Frankfurt am Main	90.00		989	-820
VR Corporate Finance GmbH	Düsseldorf	50.00		2,086	-187
Zhong De Zuh Fang Chu Xu Yin Hang (Sino-German-Bausparkasse) Ltd.[1]	Tianjin, China	24.90		349,250	24,960

ASSOCIATES

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
8F Leasing S.A.[1]	Contern, Luxembourg	0.00		0	0
A330 Parts Ltd[1]	Newark, USA	0.00		0	0
Aer Lucht Limited[1]	Dublin, Ireland	0.00		0	0
Artemis Gas 1 Shipping Inc.[1]	Piraeus, Greece	0.00		0	0
Aviateur Capital Limited[1]	Dublin, Ireland	20.00		1,990	208
bbv-service Versicherungsmakler GmbH[1]	Munich	25.20		1,618	409
Box TopCo AS - 635554[1]	Oslo, Norway	0.00		0	0
Cassa Centrale Banca – Credito Cooperativo del Nord Est Società per Azioni	Trento, Italy	25.00	26.47	247,105	18,906
Danae Gas Shipping Inc[1]	Piraeus, Greece	0.00		0	0
Epic Pantheon International Gas Shipping Ltd.[1]	Tortola, Virgin Islands	0.00		0	0
Equens SE	Utrecht, Netherlands	31.05		321,246	-7,776
European Property Beteiligungs-GmbH[1]	Frankfurt am Main	38.90	33.20	1,050	-25
GHM Holding GmbH[1]	Regenstauf	40.00		17,261	-31
GHM MPP Reserve GmbH[1]	Regenstauf	50.00		364	-3
GHM MPP Verwaltungs GmbH[1]	Regenstauf	50.00		22	0
Global Asic GmbH[1]	Dresden	30.80		18,476	-388
Global Offshore Services B.V.[1]	Amsterdam, Netherlands	32.00	0.00	0	0
Goldeck Zetti Beteiligungsgesellschaft mbH[1]	Leipzig	39.23		33,200	688
Gram Car Carriers Holdings Pte. Ltd.[1]	Singapore, Singapore	0.00		0	0
Hör Technologie GmbH[1]	Weiden i.d.OPf.	61.54	49.99	6,808	483
ismet Holding GmbH[1]	Villingen-Schwenningen	57.50	49.00	8,953	849
Janz IT AG[1]	Paderborn	40.12		2,094	-1,348
KCM Bulkers Ltd.[1]	Tortola, Virgin Islands	0.00		0	0
KOTANI JV CO. BV[1]	Amsterdam, Netherlands	0.00		0	0
KTP Holding GmbH[1]	Bous	49.82		27,455	5,147
Mandarin Containers Limited[1]	Tortola, Virgin Islands	0.00		0	0
Modex Holding Limited (BVI)[1]	Tortola, Virgin Islands	0.00		0	0
MON A300 Leasing Ltd.[1]	George Town, Cayman Islands	0.00		0	0
MON Engine Parts Inc.[1]	Wilmington, USA	20.00		0	0
Mount Faber KS[1]	Oslo, Norway	0.00		0	0
MSEA Aframax Holdings LLC[1]	Majuro, Marshall Islands	0.00		0	0
Neida Holding AG[1]	Appenzell, Switzerland	35.00		1,273	-1,232
Piller Entgrattechnik GmbH[1]	Ditzingen	26.25	35.00	7,273	2,045
SCL GmbH[1]	Butzbach	49.00		5,784	1,408
Sementis GmbH Stephan Behr Vermögensverwaltung[1]	Eisenach	24.90	0.00	12,130	-162
SRF Railcar Leasing Limited[1]	Cashel, Ireland	100.00	0.00	0	0
TES Holding Ltd.[1]	Bridgend, UK	40.00		29,780	-5,105
Touax Rail Finance 3 Ltd[1]	Bracetown, Ireland	0.00		0	0
TREVA Entertainment GmbH[1]	Hamburg	32.70		1,269	-529
United MedTec Holding GmbH[1]	Bückeburg	41.01		8,570	924
vohtec Qualitätssicherung GmbH[1]	Aalen	49.15		8,373	2,399
Weisshaar Holding GmbH[1]	Frankfurt am Main	84.94	49.92	25	0
Wessel-Werk Beteiligungsverwaltung GmbH i.L.[1]	Karlsruhe	45.00		-2,088	-1,527
WÜRTT. GENO-HAUS GmbH & Co. KG	Stuttgart	29.70		39,499	1,522

SHAREHOLDINGS OF 20% OR MORE

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
1-2-3. TV GmbH[1]	Unterföhring	20.93		4,165	951
Assiconf S.r.l.[1]	Turin, Italy	20.00		65	12
ASSICRA Servizi Assisurativi Banche di Credito Cooperativo Abruzzo e Molise S.r.l.[1]	Pescara, Italy	25.00		348	21
ATRION Immobilien GmbH & Co. KG[1]	Grünwald	31.63		40,519	999
BCC RISPARMIO & PREVIDENZA S.G.R.P.A.[1]	Milan, Italy	25.00		34,945	9,460
BLE Bau- und Land-Entwicklungsgesellschaft Bayern GmbH[1]	Munich	20.00		399	0
BRASIL FLOWERS S.A.[1]	Barbacena, Brazil	45.00		0	0
Burghofspiele GmbH[1]	Eltville	20.00		61	-14
Bürgschaftsbank Brandenburg GmbH	Potsdam	25.31		24,988	1,680
Bürgschaftsbank Mecklenburg-Vorpommern GmbH	Schwerin	30.38		15,956	162
Bürgschaftsbank Sachsen-Anhalt GmbH	Magdeburg	29.73		14,856	74
Bürgschaftsbank Thüringen GmbH	Erfurt	22.13		23,397	910
CardProcess GmbH	Karlsruhe	29.70		31,250	1,315
Credit Suisse Global Infrastructure SCA SICAR[1]	Luxembourg, Luxembourg	30.09		222,765	53,415
Dacos Software GmbH[1]	Saarbrücken	29.96		0	0
DZ BANK Mikrofinanzfonds eG[2]	Frankfurt am Main	32.09	0.90	242	1
European Convenience Food GmbH[1]	Borken	41.75		1,580	539
Finatem II GmbH & Co. KG[1]	Frankfurt am Main	20.20		27,824	-6,833
FREUNDE DER EINTRACHT FRANKFURT Aktiengesellschaft[1]	Frankfurt am Main	32.05		2,891	-3
GbR Ottmann GmbH & Co. Südhausbau KG, München VR Hausbau AG, Stuttgart (GbR 'Ackermannbogen.de-Wohnen am Olympiapark')[1]	Munich	50.00		62	-4
GENO-Haus Stuttgart Beteiligungs GmbH	Stuttgart	33.33		29	1
GENO-Haus Stuttgart GmbH & Co. KG Verwaltungsgesellschaft	Stuttgart	45.45		13	0
German Equity Partners III GmbH & Co. KG[1]	Frankfurt am Main	24.19		22,559	155
Gesellschaft für ernährungswirtschaftliche Beteiligungen mbH	Ochsenfurt	49.90		5,429	86
Golding Mezzanine SICAV IV[1]	Munsbach, Luxembourg	49.98		88,455	9,973
GTIS Brazil II S-Feeder LP[1]	Edinburgh, UK	100.00	0.00	15,367	-3,032
HGI Immobilien GmbH[1]	Frankfurt am Main	50.00		102	-19
HGI Immobilien GmbH & Co. GB I KG[1]	Frankfurt am Main	73.91	73.21	14,267	428
Kredit-Garantiegemeinschaft des bayerischen Handwerks Gesellschaft mit beschränkter Haftung	Munich	20.00		4,846	0
Kreditgarantiegemeinschaft in Baden-Württemberg Verwaltungs-GmbH	Stuttgart	20.00		1,023	0
Laetitia Grundstücksverwaltungsgesellschaft mbH & Co. Vermietungs-KG	Pullach	39.00		0	-15
Locanis AG[1]	Unterföhring	41.28		-1,824	864
MB Asia Real Estate Feeder (Scot.) L.P.[1]	Edinburgh, UK	39.20	0.00	29,439	601
Medico 12 GmbH & Co. KG[1]	Frankfurt am Main	99.98		5,307	599
Mercateo Beteiligungsholding AG[1]	Taufkirchen	32.83		4,248	-219
P 21 GmbH – Power of the 21st Century i.L.[1]	Brunnthal	27.00	22.23	0	0
paydirekt GmbH	Frankfurt am Main	37.50		9,965	-3,435
PWR Holding GmbH[1]	Munich	33.33		117	87
RV-CVIII Holdings, LLC[1]	Camden, USA	100.00		38,750	-2,371
Schroder Italien Fonds GmbH & Co. KG[1]	Frankfurt am Main	23.08	19.74	2,261	-850
Schroder Property Services B.V.[1]	Amsterdam, Netherlands	30.00		301	249
Seguros Generales Rural S.A. de Seguros y Reaseguros[1]	Madrid, Spain	30.00		176,454	16,929
TFH Technologie-Finanzierungsfonds Hessen GmbH	Frankfurt am Main	33.33		645	0
Tishman Speyer Brazil Feeder (Scots/D), L.P.[1]	Edinburgh, UK	100.00		18,964	5,010
Tishman Speyer European Strategic Office Fund Feeder, L.P.[1]	London, UK	97.18		16,216	1,005
TXS GmbH[1]	Ellerau	24.50		832	287
VAUTID Arabia Coating & Treatment of Metals LLC[1]	Ras Al Khaimah, United Arab Emirates	24.50	0.00	200	-46
VAUTID HUIFENG (WUHU) Wear Resistant Material Co. Ltd.[1]	Wuhu, China	50.00		1,385	685
VAUTID-SHAH HARDFACE Pvt. Ltd.[1]	Navi Mumbai, India	37.49		313	21
VR FinanzDienstLeistung GmbH	Berlin	24.50		1,868	7
VR-LEASING MORIO GmbH & Co. Immobilien KG[1]	Eschborn	94.00	24.50	0	61
VR-NetWorld GmbH[2]	Bonn	39.05		4,832	876
VV Immobilien GmbH & Co. United States KG[1]	Munich	25.00		10	7,754
Zarges Tubesca Finance GmbH[1]	Weilheim	26.67		7	55
ZhangJiaGang Vautid Yao Yu Wear Resistance Material Co., Ltd[1]	Yangshe Town, China	50.00		0	0

MORE THAN 5% OF VOTING RIGHTS (LARGE CORPORATIONS)

Name	Location	Shareholding	Voting rights, if different	Equity in € '000	Profit/loss in € '000
Banco Cooperativo Español S.A.	Madrid, Spain	12.02		384,139	46,322
ConCardis Gesellschaft mit beschränkter Haftung	Eschborn	19.60		52,213	13,628
DEPFA BeteiligungsHolding II Gesellschaft mit beschränkter Haftung[1]	Düsseldorf	10.00		0	0
EDEKABANK Aktiengesellschaft	Hamburg	8.35		88,436	3,630
EURO Kartensysteme GmbH	Frankfurt am Main	19.60		329,722	1,003,604
PANELLINIA BANK SOCIETE ANONYME (under special liquidation)	Athens, Greece	8.42	5.28	50,143	-12,637
Protektor Lebensversicherungs-AG[1]	Berlin	5.27		90,500	128
Raiffeisendruckerei GmbH[1]	Neuwied	7.88		35,674	1,633
SCHUFA Holding AG[1]	Wiesbaden	17.94		45,442	15,921

1 Held indirectly.
2 Including shares held indirectly.
3 A letter of comfort exists.
4 A subordinated letter of comfort exists.
5 Profit-and-loss transfer agreement.
6 The company makes use of the exemptions provided for under section 264b HGB.

RESPONSIBILITY STATEMENT

To the best of our knowledge, and in accordance with the applicable reporting principles, the annual financial statements of DZ BANK give a true and fair view of the assets, liabilities, financial position and profit or loss of DZ BANK, and the management report of DZ BANK includes a fair review of the development and performance of the business and the position of DZ BANK, together with a description of the principal opportunities and risks associated with the expected development of DZ BANK.

Frankfurt am Main, February 29, 2016

DZ BANK AG
Deutsche Zentral-Genossenschaftsbank

The Board of Managing Directors

Kirsch

Hille Köhler Dr. Riese

Ullrich Westhoff Zeidler

AUDIT OPINION (TRANSLATION)

We have audited the annual financial statements, comprising the balance sheet, the income statement, and the notes to the financial statements, together with the bookkeeping system and the management report of DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main, for the fiscal year from January 1, 2015 to December 31, 2015. The maintenance of the books and records and the preparation of the annual financial statements and management report in accordance with German commercial law and the supplementary provisions of the articles of incorporation are the responsibility of the Company's management. Our responsibility is to express an opinion on the annual financial statements, together with the bookkeeping system, and the management report based on our audit.

We conducted our audit of the annual financial statements in accordance with Sec. 317 HGB ("Handelsgesetzbuch": "German Commercial Code") and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the annual financial statements in accordance with German principles of proper accounting and in the management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Company and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the books and records, the annual financial statements and management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the annual financial statements and management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the annual financial statements comply with the legal requirements and supplementary provisions of the articles of incorporation and give a true and fair view of the net assets, financial position and results of operations of the Company in accordance with German principles of proper accounting. The management report is consistent with the annual financial statements and as a whole provides a suitable view of the Company's position and suitably presents the opportunities and risks of future development.

Eschborn/Frankfurt am Main, March 7, 2016

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Dr. Freiling	Dombek
Wirtschaftsprüfer	Wirtschaftsprüferin
(German Public Auditor)	(German Public Auditor)

DZ BANK ADVISORY COUNCILS

As at December 2015

MEMBERS OF THE FINANCIAL SERVICES ADVISORY COUNCIL FOR THE DZ BANK GROUP

CHAIRMAN:

ANDREAS HOF
Chief Executive Officer
VR Bank
Main-Kinzig-Büdingen eG
Büdingen

DEPUTY CHAIRMAN:

EBERHARD HEIM
Chief Executive Officer
Volksbank Tübingen eG
Tübingen

REPRESENTATIVES OF THE COOPERATIVE BANKS:

WOLFGANG ALTMÜLLER
Chief Executive Officer
VR meine Raiffeisenbank eG
Altötting

DR. KONRAD BAUMÜLLER
Spokesman of the Board of
Managing Directors
VR-Bank Erlangen-Höchstadt-Herzogenaurach eG
Erlangen
(until October 2015)

ULF BROTHUHN
Chief Executive Officer
Bremische Volksbank eG
Bremen
(since July 2015)

RICHARD ERHARDSBERGER
Chief Executive Officer
VR-Bank Vilsbiburg eG
Vilsbiburg

MARTIN HEINZMANN
Spokesman of the Board of
Managing Directors
Volksbank Kinzigtal eG
Wolfach

THOMAS JANSSEN
Member of the Board of
Managing Directors
Volksbank Braunlage eG
Braunlage

FRANZ-JOSEF JAUMANN
Chief Executive Officer
Volksbank Trossingen eG
Trossingen

KLAUS KRÖMER
Member of the Board of
Managing Directors
Emsländische Volksbank eG
Meppen

ANDREAS LORENZ
Chief Executive Officer
Volksbank Karlsruhe eG
Karlsruhe

RUDOLF MÜLLER
Spokesman of the Board of
Managing Directors
Volksbank Kur- und Rheinpfalz eG
Speyer

MANFRED ROTH
Chief Executive Officer
VR Bank Weimar eG
Weimar

REINHARD SCHLOTTBOM
(personal representative for
the member from the
Sparda-Bank Group)
Chief Executive Officer
PSD Bank Westfalen-Lippe eG
Münster

MARTIN SCHMITT
Chief Executive Officer
Kasseler Bank eG
Volksbank Raiffeisenbank
Kassel

KLAUS TREIMER
Spokesman of the Board of
Managing Directors
VR Bank Ostholstein Nord –
Plön eG
Neustadt in Holstein

RUDOLF VEITZ
Member of the Board of
Managing Directors
Raiffeisenbank Holzheim eG
Holzheim

PROFESSOR JÜRGEN WEBER
Chief Executive Officer
Sparda-Bank Hessen eG
Frankfurt am Main

HEINZ-WALTER WIEDBRAUCK
Chief Executive Officer
Volksbank Hameln-Stadthagen eG
Hameln
(until May 2015)

REPRESENTATIVES OF THE BVR AND ITS SPECIAL COMMITTEES:

DR. WOLFGANG BAECKER
Chief Executive Officer
VR-Bank Westmünsterland eG
Coesfeld

JÜRGEN BRINKMANN
Chief Executive Officer
Volksbank eG
Braunschweig Wolfsburg
Wolfsburg

UWE FRÖHLICH
President
Bundesverband der
Deutschen Volksbanken und
Raiffeisenbanken (BVR)
Berlin

PETER GEUSS
Chief Executive Officer
VR Bank
Starnberg-Herrsching-Landsberg eG
Starnberg

CARSTEN GRAAF
(member coopted
as Chairman of the
BVR Association Council)
Chief Executive Officer
Volksbank Meerbusch eG
Meerbusch
(until September 2015)

DR. VEIT LUXEM
(member coopted
as Chairman of the
BVR Association Council)
Chief Executive Officer
Volksbank Erkelenz eG
Erkelenz
(since September 2015)

ROSEMARIE MILLER-WEBER
Chief Executive Officer
Leutkircher Bank –
Raiffeisen- und Volksbank – eG
Leutkirch im Allgäu

HORST SCHREIBER
Member of the Board of
Managing Directors
Volksbank Trier eG
Trier
(until May 2015)

MEMBERS OF THE BANKING ADVISORY COUNCIL OF DZ BANK AG FOR BADEN-WÜRTTEMBERG

CHAIRMAN:
ANDREAS BÖHLER
Spokesman of the Board of
Managing Directors
Volksbank Kraichgau
Wiesloch-Sinsheim eG
Wiesloch

DEPUTY CHAIRMAN:
HERMANN SONNENSCHEIN
Member of the Board of
Managing Directors
Volksbank Göppingen eG
Göppingen

UWE BARTH
Spokesman of the Board of
Managing Directors
Volksbank Freiburg eG
Freiburg

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Member of the Board of
Managing Directors
BBBank eG
Karlsruhe

JÜRGEN BEERKIRCHER
Member of the Board of
Managing Directors
Volksbank Backnang eG
Backnang

THOMAS BIERFREUND
Member of the Board of
Managing Directors
VR Bank eG
Steinlach-Wiesaz-Härten
Mössingen

ULF BLECKMANN
Member of the Board of
Managing Directors
Volksbank Dreiländereck eG
Lörrach

OLIVER CONRADI
Chief Executive Officer
Heidenheimer Volksbank eG
Heidenheim an der Brenz

CLAUS EDELMANN
Member of the Board of
Managing Directors
Volksbank Strohgäu eG
Korntal-Münchingen

JÜRGEN FRICKE
Chief Executive Officer
Volksbank Vorbach-Tauber eG
Weikersheim
(since March 2015)

CLEMENS FRITZ
Chief Executive Officer
Volksbank Achern eG
Achern

HELMUT HABERSTROH
Spokesman of the Board of
Managing Directors
Raiffeisenbank Aichhalden-
Hardt-Sulgen eG
Hardt

MARTIN HEINZMANN
Spokesman of the Board of
Managing Directors
Volksbank Kinzigtal eG
Wolfach

ANDREAS HOFFMANN
Chief Executive Officer
Volksbank Bruhrain-
Kraich-Hardt eG
Oberhausen-Rheinhausen

KLAUS HOFMANN
Member of the Board of
Managing Directors
Raiffeisenbank
Ehingen-Hochsträß eG
Ehingen (Donau)

JÜRGEN HORNUNG
Spokesman of the Board of
Managing Directors
VR-Bank Ellwangen eG
Ellwangen (Jagst)

GOTTFRIED JOOS
Chief Executive Officer
Volksbank Dornstetten eG
Dornstetten

EBERHARD KEYSERS
Member of the Board of
Managing Directors
Raiffeisenbank Aidlingen eG
Aidlingen

GEORG KIBELE
Member of the Board of
Managing Directors
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Raiffeisen- und Volksbank – eG
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Neumarkt i.d.OPf.

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Volksbank eG Westrhauderfehn
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PRINCIPAL SHAREHOLDINGS OF DZ BANK

BANKS

Name & registered office	Group company[1]	Shareholding (%)
Bausparkasse Schwäbisch Hall Aktiengesellschaft – Bausparkasse der Volksbanken und Raiffeisenbanken –, Schwäbisch Hall	•	81.9
Ceskomoravska stavebni sporitelna a.s., Prague		45.0
Fundamenta-Lakáskassza Zrt., Budapest	•	51.2
Prvá stavebná sporiteľna a.s., Bratislava		32.5
Zhong De Zuh Fang Chu Xu Yin Hang (Sino-German-Bausparkasse) Ltd., Tianjin		24.9
Schwäbisch Hall Kreditservice AG, Schwäbisch Hall	•	100.0
Banco Cooperativo Español S.A., Madrid		12.0
Deutsche Genossenschafts-Hypothekenbank AG, Hamburg[2]	•	100.0
Deutsche WertpapierService Bank AG, Frankfurt am Main		50.0
DVB Bank SE, Frankfurt am Main	•	95.5
DZ PRIVATBANK S.A., Strassen, Luxembourg[2]	•	70.5
DZ PRIVATBANK (Schweiz) AG, Zurich	•	100.0
ReiseBank AG, Frankfurt am Main (indirect)	•	100.0
TeamBank AG Nürnberg, Nuremberg	•	92.1

1 Consolidated in accordance with IAS 27 and total shareholding held by DZ BANK or relevant parent.
2 Letter of comfort from DZ BANK.

Percentages in accordance with IFRS from the perspective of the relevant subgroup parent company.

OTHER SPECIALIZED SERVICE PROVIDERS

Name & registered office	Group company[1]	Shareholding (%)
VR Equitypartner GmbH, Frankfurt am Main[2]	•	78.0
Equens SE, Utrecht		31.1
VR-LEASING Aktiengesellschaft, Eschborn	•	83.5
BFL LEASING GmbH, Eschborn	•	72.7
VR DISKONTBANK GmbH, Eschborn	•	100.0
VR FACTOREM GmbH, Eschborn	•	100.0
VR-IMMOBILIEN-LEASING GmbH, Eschborn	•	100.0

1 Consolidated in accordance with IAS 27 and total shareholding held by DZ BANK or relevant parent.
2 Letter of comfort from DZ BANK.

ASSET MANAGEMENT COMPANIES

Name & registered office	Group company[1]	Shareholding (%)
Union Asset Management Holding AG, Frankfurt am Main	•	73.7
Quoniam Asset Management GmbH, Frankfurt am Main	•	100.0[2]
R+V Pensionsfonds AG, Wiesbaden (together with R+V Versicherung AG)	•	25.1
Union Investment Institutional GmbH, Frankfurt am Main	•	100.0
Union Investment Institutional Property GmbH, Hamburg	•	90.0
Union Investment Luxembourg S.A., Luxembourg	•	100.0
Union Investment Privatfonds GmbH, Frankfurt am Main	•	100.0
Union Investment Real Estate GmbH, Hamburg	•	94.0

1 Consolidated in accordance with IAS 27 and total shareholding held by DZ BANK or relevant parent.
2 Share of voting power.

INSURANCE COMPANIES

Name & registered office	Group company[1]	Shareholding (%)
R+V Versicherung AG, Wiesbaden	•	77.0
Condor Allgemeine Versicherungs-Aktiengesellschaft, Hamburg	•	100.0
Condor Lebensversicherungs-Aktiengesellschaft, Hamburg	•	95.0
KRAVAG-Allgemeine Versicherungs-Aktiengesellschaft, Hamburg	•	76.0
KRAVAG-LOGISTIC Versicherungs-Aktiengesellschaft, Hamburg	•	51.0
R+V Allgemeine Versicherung Aktiengesellschaft, Wiesbaden	•	95.0
R+V Krankenversicherung AG, Wiesbaden	•	100.0
R+V Lebensversicherung AG, Wiesbaden	•	100.0
R+V Pensionsfonds AG, Wiesbaden (together with Union Asset Management Holding AG)	•	74.9

1 Consolidated in accordance with IAS 27 and total shareholding held by DZ BANK or relevant parent.

Percentages in accordance with IFRS from the perspective of the relevant subgroup parent company.

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