Volksbanken Raiffeisenbanken
cooperative financial network

2013

# ANNUAL REGULATORY RISK REPORT OF THE DZ BANK BANKING GROUP

DZ BANK Group

# CONTENTS

# 1. BASIS OF REGULATORY RISK REPORTING

## 1.1. LEGAL BASIS

The Basel Committee on Banking Supervision has defined internationally accepted standards for the amount of capital that banks need to hold to cover potential risks. It issued these standards in the form of recommendations on capital adequacy referred to as 'Basel II'. The Solvency Regulation (SolvV) has transposed into national law the minimum European capital adequacy standards (collectively known as the Capital Requirements Directive (CRD)) prescribed in the Banking Directive (2006/48/EC) and the Capital Adequacy Directive (2006/49 /EC) as well as the equivalent requirements of Basel II. SolvV defines in more detail the capital adequacy requirements for institutions laid down in section 10 of the German Banking Act (KWG).

On December 16, 2010, the Basel Committee on Banking Supervision published the final version of the newcapital adequacy and liquidity requirements for banks (known as the 'Basel III' package). All of the G20 heads of state and government have undertaken to implement the new equity and liquidity rules consistently. The governments of the G20 countries originally set January 1, 2013 as the date for the rules to become effective at European level. However, lengthy negotiations about the draft legislation among the Council of the European Union, the European Parliament, and the European Commission delayed the introduction of the EU rules for a year. Finally, on April 16, 2013, the adoption of the Basel III legal framework into European law was approved in the form of a combined draft directive and regulation called the Capital Requirements Directive IV (CRD IV, which is a revised and amended version of the previous Capital Requirements Directive (CRD III)) and a new Capital Requirements Regulation (CRR). CRD IV and CRR were published in the Official Journal of the European Union on June 27, 2013. CRR in particular imposes more stringent qualitative and quantitative capital requirements.

The DZ BANK banking group's regulatory risk reporting system is based on section 26a KWG in conjunction with sections 319 to 337 SolvV.

## 1.2. RECOMMENDATIONS BY BANKING REGULATORS

Large parts of the disclosure recommendations made by the Financial Stability Board (FSB) relating to securitization exposures and the leveraged finance portfolio (and that form an integral part of the Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience dated April 7, 2008) have been incorporated into SolvV via CRD III. The CRD IV requirements did not result in any new requirements for this report for 2013.

In April 2010, the Committee of European Banking Supervisors (CEBS) – renamed the European Banking Authority (EBA) on January 1, 2011 – published recommendations for reporting in crisis situations ('Principles for disclosures in times of stress'), although it was proposed that these recommendations also be applied even when there is no prevailing economic crisis. DZ BANK has implemented key components of these recommendations in both its regulatory risk reporting system and its risk reporting system in accordance with the requirements of commercial law.

## 1.3. IMPLEMENTATION IN THE DZ BANK BANKING GROUP

Since 2007, the DZ BANK banking group has mainly used the foundation internal ratings-based approach (IRB approach or IRBA) to calculate **the regulatory capital requirement** for credit risk. The regulatory credit risk measurement methods used by DVB Bank SE, Frankfurt am Main, (DVB) are largely based on the advanced IRB approach. The IRB approach is used to calculate the credit risk of the retail businesses of Bausparkasse Schwäbisch Hall AG, Schwäbisch Hall, (BSH), Deutsche Genossenschafts-Hypothekenbank AG, Hamburg, (DG HYP), and TeamBank AG Nürnberg, Nuremberg (TeamBank), although the probability of default (PD) and the loss given default (LGD) are based on accounting estimates. Capital requirements for market risk are predominantly measured by using internal calculation models. The Standardized Approach is used at the banking group level to determine operational risk in accordance with regulatory requirements.

Pursuant to section 319 (2) SolvV, **disclosures** are made by DZ BANK as the parent company of the regulatory banking group, disclosures being aggregated at group level.

DZ BANK's external risk reporting is based on the **disclosure policy** adopted by the Board of Managing Directors, which documents principles and fundamental decisions concerning the methods, organizational structures, and IT systems used in risk disclosure and how this is embedded in the group's general financial disclosure and internal risk reporting. By adopting this disclosure policy, the Board of Managing Directors has put in place the necessary risk-related disclosure procedures and has communicated them throughout the DZ BANK Group. The disclosure policy is updated as part of the annual review of the adequacy of the DZ BANK Group's risk disclosure procedures, thereby complying with the requirements of section 26a (1) KWG.

Significant components of the **qualitative regulatory risk reporting requirements** are covered in the report on opportunities and risks associated with forecast development, which forms an integral part of the group management report in the DZ BANK Group's 2013 Annual Report (hereinafter referred to as 'opportunity and risk report'). In this regard, the DZ BANK banking group utilizes the option available under section 320 (1) SolvV. Please therefore refer to the opportunity and risk report for the qualitative disclosures concerned.

The disclosures in the opportunity and risk report generally relate to descriptions of the procedures in the internal risk management system. In contrast, disclosures that are solely of relevance for regulatory purposes are set out in the regulatory risk report. This also applies to information relating to the internal risk management system that would otherwise require a significant extension of the scope of the opportunity and risk report because of the level of detail required in the disclosures concerned. In particular, this affects the detailed disclosures about the internal rating systems and the risk model approved by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) [Federal Financial Supervisory Authority] for calculating the regulatory capital requirement for general and specific market risk. The accounting-related disclosures on long-term equity investments and securitizations are included in the regulatory risk report.

As in the procedure adopted for qualitative disclosures, **quantitative disclosures** are generally included in the opportunity and risk report rather than in the regulatory risk report if the disclosures concerned are derived from the internal risk management system. This applies to the disclosures on lending volume in accordance with section 327 SolvV. Again, in the relevant sections, please refer to the opportunity and risk report.

The objective of DZ BANK's pillar 3 reporting is to support comparisons between institutions as a prerequisite for achieving market discipline. The disclosure of figures relating to the original requirements of Basel II pillar 3 are therefore provided using the table formats – referred to as 'use cases' – recommended by the specialist subcommittee on disclosure requirements (as at September 2012).

Corresponding **comparative values** for 2012 have been disclosed on a voluntary basis in addition to the figures disclosed for the year under review.

The following quantitative requirements are currently **not relevant** to DZ BANK and the corresponding data has not therefore been included in this risk report:

- Alpha factor defined in section 223 (6) SolvV (disclosure pursuant to section 326 (2) no. 5 SolvV), since no internal DZ BANK banking group models approved by the regulatory authorities were used in 2013 to calculate capital requirements for derivative counterparty risk exposure.
- Securitizations under the early amortization approach (disclosure pursuant to section 334 (2) no. 4 SolvV), since no such securitizations were transacted by entities in the DZ BANK banking group in the year under review.
- Risk in connection with fair value changes in the correlation trading portfolio as defined in section 318e SolvV (disclosure pursuant to section 330 (5) SolvV) because no internal model approved by the regulatory authorities was available for this portfolio. The capital requirements for these exposures are calculated using the standardized method.

Disclosures based on the FSB recommendations of April 2010 that have not become part of the enhanced regulatory framework are made primarily in the opportunity and risk report, because the figures concerned are derived from the internal management system and are only loosely related to the regulatory framework. This applies to the following disclosures in sections 8.6.4 and 8.6.5 of the opportunity and risk report:

- Disclosures relating to the collateralized debt obligations (CDOs) product category and to the subprime portfolio
- Volume of assets insured by monoliners
- Lending volume in the leveraged finance portfolio.

DZ BANK satisfies the disclosure requirements under the **German Regulation Governing Remuneration at Institutions (InstitutsVergV)** in a separate report containing disclosures in accordance with sections 7 and 8 InstitutsVergV, which is available on DZ BANK's website in the Investor Relations section.

As part of the audit of the **annual financial statements** and in accordance with section 29 (1) sentence 2 KWG, DZ BANK's auditors have audited this risk report with respect to formal procedures, rules on disclosure, and compliance with disclosure requirements. With the exception of those sections that are disclosed within the opportunity and risk report, the content of this report has not been audited.

### 1.4. RISKS COVERED IN THE REGULATORY RISK REPORT

The regulatory risk report includes the subsidiaries that must be consolidated as part of the DZ BANK banking group for regulatory purposes in accordance with KWG. Further risks arising at subsidiaries that are not consolidated for regulatory purposes are disclosed in detail in the opportunity and risk report at the DZ BANK Group level. This especially relates to the risks to which R+V Versicherung AG, Wiesbaden, (R+V) is exposed.

Regulatory capital adequacy relates to the following risk types: credit risk (including equity risk), market risk, and operational risk. In addition to these risk types, technical risk of a home savings and loan company, actuarial risk, and business risk are also backed by economic risk capital as part of the internal economic capital management process under the second pillar of Basel II. At the same time, liquidity risk is also taken into account in a separate liquidity-related analysis of risk-bearing capacity.

There are also differences between the economic and regulatory perspectives, as follows:

- When the regulatory capital requirements and the related disclosure requirements are being determined, risk-bearing exposures allocated to the trading book and banking book are treated differently in terms of quantification of risk. For example, the on-balance-sheet and off-balance-sheet exposures of the banking book and the counterparty risks arising from derivatives exposure in the banking book and trading book are classified under credit risk. The issuer-related exposures in the trading book are treated as market risk exposures and are therefore backed with regulatory capital, whereas for internal management purposes they are treated as issuer risks and classified under credit risk.

- The credit risk exposures presented in this risk report are based on regulatory bases for assessment, and therefore differ from the lending volume presented in the opportunity and risk report which is based on figures in the internal management accounts.

- Economic management also includes interest-rate risks in the banking book for which no capital backing is required for regulatory purposes.

## 2. SCOPE OF APPLICATION

As part of the DZ BANK financial conglomerate, the DZ BANK banking group is subject to the provisions of the Supervision of Financial Conglomerates Act (FKAG) in conjunction with the Financial Conglomerates Solvency Regulation (FkSolV). In this respect it meets the relevant requirements with respect to **financial conglomerates' solvency** and the establishment of an overarching risk management structure.

All entities belonging to the financial conglomerate are integrated into the central risk management system using the principle of materiality pursuant to section 26a (2) no. 1 KWG in conjunction with section 320 (1) SolvV. Materiality is determined on the basis of a concept that is also relevant to opportunity and risk reporting pursuant to the German Commercial Code (HGB). The concept takes into account the decision-usefulness of disclosures and the economic viability of preparing reports. It is based on risk-management procedures that meet the requirement for a group-wide risk monitoring system, in accordance with section 91 (2) of the German Stock Corporation Act (AktG) and pursuant to section 25a (1) KWG.

The disclosures in this risk report relate to material entities in the DZ BANK banking group as defined by section 26a (2) no. 1 KWG. The materiality concept does not cover the disclosures on capital structure, capital requirements, or capital ratios. All relevant entities consolidated for regulatory purposes are included in these disclosures to ensure that the key regulatory figures are consistent with the figures reported.

In figure 1 (disclosure pursuant to section 323 (1) no. 2 SolvV), the financial conglomerate's entities that are material for internal risk management purposes are classified according to the nature of their business, the nature of their treatment for regulatory purposes, and the nature of their consolidation for commercial-law purposes. These entities are classified on the basis of the definitions contained in section 1 KWG.

The material entities are consolidated for both regulatory and commercial-law purposes. Although R+V is fully consolidated for commercial-law purposes, it is not directly subject to banking

FIG. 1 – CONSOLIDATION MATRIX: DIFFERENCES BETWEEN ENTITIES CONSOLIDATED FOR REGULATORY PURPOSES AND THOSE CONSOLIDATED FOR THE PURPOSES OF COMMERCIAL LAW

| | | Treatment for regulatory purposes | | | | Consolidation under IFRS | |
|---|---|---|---|---|---|---|---|
| | | Consolidation | | | | | |
| Classification | Name (abbreviation) | Full | Pro-rata | Deduction method | Risk-weighted equity investment | Full | Pro-rata |
| Banks | DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main (DZ BANK) | ● | | | | ● | |
| | Bausparkasse Schwäbisch Hall AG, Schwäbisch Hall (BSH) | ● | | | | ● | |
| | Deutsche Genossenschafts-Hypothekenbank AG, Hamburg (DG HYP) | ● | | | | ● | |
| | DVB Bank SE, Frankfurt am Main (DVB) | ● | | | | ● | |
| | DZ BANK Ireland plc, Dublin (DZ BANK Ireland) | ● | | | | ● | |
| | DZ PRIVATBANK S.A., Luxembourg-Strassen (DZ PRIVATBANK S.A.) | ● | | | | ● | |
| | DZ PRIVATBANK (Schweiz) AG, Zurich (DZ PRIVATBANK Schweiz) | ● | | | | ● | |
| | TeamBank AG Nürnberg, Nuremberg (TeamBank) | ● | | | | ● | |
| Finance companies | Union Asset Management Holding AG, Frankfurt am Main (Union Asset Management Holding) | ● | | | | ● | |
| Financial services institutions | VR-LEASING AG, Eschborn (VR-LEASING AG) | ● | | | | ● | |
| Insurance companies | R+V Versicherung AG, Wiesbaden (R+V) | | | | ● | ● | |

regulation. Instead, it is factored into the procedure used to determine the DZ BANK banking group's capital adequacy and disclosure requirements using the risk-weighted carrying amount of DZ BANK's investment in R+V. Furthermore, R+V is included in the cross-sectoral regulatory surveillance of the DZ BANK financial conglomerate at consolidated level within the legal framework applicable to financial conglomerates.

As at December 31, 2013, the following were fully **consolidated for regulatory purposes** pursuant to section 10a KWG together with the entities listed in figure 1: a total of 18 (December 31, 2012: 19) banks, 20 (December 31, 2012: 25) financial services institutions, 7 (December 31, 2012: 7) asset management companies, 562 (December 31, 2012: 679) finance companies – 509 (December 31, 2012: 604) of which were project companies belonging to VR-IMMOBILIEN-LEASING GmbH, Eschborn –, and 8 (December 31, 2012: 10) providers of related services. In addition, 4 banks, 3 finance companies, and one asset management company were consolidated on a pro-rata basis.

DZ BANK is either directly or indirectly the major shareholder in the investments consolidated for regulatory purposes. Most companies are based either in Germany or elsewhere in the European Union. On the reporting date there were no **restrictions on the transfer of funds or capital** as defined in section 323 (1) no. 3 SolvV within the DZ BANK banking group by third-party individuals, private or public-sector companies, supranational organizations, or sovereign states.

The **waiver** available under section 2a KWG, which states that provided certain conditions are met – the regulatory supervision of individual Germany-based institutions within a banking group may be replaced by supervision of the entire banking group, continued to be used in the DZ BANK banking group for DG HYP ('group waiver' pursuant to section 2a (1) KWG).

The group waiver can only be used if the subordinate entity is closely integrated into the group structure. This is assumed to be the case if the parent company is able to exercise control over the subordinated entity because it holds the majority of its voting rights and it has issued an unrestricted letter of comfort in relation to the subordinated entity. Furthermore, the regulatory management of the subordinated institution by the parent company must meet BaFin requirements and the entity that is the subject of the waiver must be included in the strategy, risk-bearing capacity, and risk-management processes of the parent institution. The parent company must also be able to issue direct instructions within the group in order to ensure the integration of the subordinated entity. DG HYP is fully integrated into the internal processes and risk management of DZ BANK as the parent company of the banking group. In addition to legal, organizational, and structural integration, this relates in particular to the structure of its decision-making bodies, integrated risk and capital management, the strategic planning process, business and risk strategies and the reporting system. There are no current or foreseeable legal or actual material obstacles to the immediate transfer of capital from DZ BANK to DG HYP or to the repayment of liabilities to DG HYP by DZ BANK.

In November 2012, DG HYP reported this to the banking regulator together with evidence that the application criteria had been met (disclosure pursuant to section 323 (1) no. 4 SolvV).

As was already the case at the end of 2012, there were no subsidiaries in the DZ BANK banking group that had a **capital deficiency** as at December 31, 2013. There is therefore no requirement for disclosure in accordance with section 323 (2) SolvV.

Figure 2 shows how the entities in the DZ BANK banking group are integrated into the quantitative regulatory disclosure procedures of the DZ BANK banking group. The entities identified as material are also directly incorporated as management units into the DZ BANK Group's risk management system. The disclosures take into account the effects of intragroup consolidation. In the disclosures on gross lending volume, allowances for losses on loans and advances, and interest-rate risk in the banking book, economic risk management criteria are used to define the management units in terms of the subsidiaries and investees included in the units, whereas the other disclosures are based on the entities consolidated for regulatory purposes.

FIG. 2 – INCLUSION OF ENTITIES IN THE DZ BANK GROUP IN QUANTITATIVE REGULATORY DISCLOSURES

| Entity | Structure of capital | Capital requirements | Capital ratios | Gross lending volume & allowances for losses on loans and advances | Standardized Approach exposure | IRBA exposure | Collateralized lending volume | Derivative counterparty risk exposure | Securitization exposure and capital requirements | Long-term equity investments in banking book | Value-at-risk in trading book | Interest-rate risk in banking book |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DZ BANK | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| BSH | ● | ● | ● | ● | ● | ● | ● | | ● | ● | | ● |
| DG HYP | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ● |
| DVB | ● | ● | ● | ● | ● | ● | ● | ● | | ● | | ● |
| DZ BANK Ireland | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | ● |
| DZ PRIVATBANK S.A. | ● | ● | ● | ● | ● | ● | ● | ● | | ● | | ● |
| DZ PRIVATBANK Schweiz | ● | ● | ● | ● | ● | | | ● | ● | ● | | ● |
| TeamBank | ● | ● | ● | ● | ● | ● | ● | ● | | ● | | ● |
| Union Asset Management Holding | ● | ● | ● | | ● | | | | | ● | | ● |
| VR-LEASING AG | ● | ● | ● | ● | ● | | ● | ● | ● | ● | | |
| Other entities of relevance for regulatory purposes | ● | ● | ● | ● | | | | | | | | |
| R+V | | | | ● | | | | | | | | |

## 3. RISK CAPITAL MANAGEMENT

### 3.1. ECONOMIC RISK CAPITAL MANAGEMENT

(Disclosure pursuant to section 325 (1) SolvV)

Information on capital adequacy and the management of economic capital is disclosed in section 7.2 of the opportunity and risk report.

### 3.2. CAPITAL

(Disclosure pursuant to section 324 SolvV)

Figure 3 shows the aggregated capital defined in section 10a KWG. The disclosures relate to all the entities in the DZ BANK banking group consolidated for regulatory purposes as at December 31, 2013. The capital of the DZ BANK banking group is calculated under the aggregation and deduction method pursuant to section 10a (6) KWG.

In addition to the paid-up capital and reserves, the fund for general banking risks in accordance with section 340g HGB, and various deductions, **Tier 1 capital** as at December 31, 2013 included other capital instruments totaling €2,464 million (December 31, 2012: €2,486 million).

These other Tier 1 capital instruments comprised open-ended equity instruments without redemption incentives with a value of €2,214 million (December 31, 2012: €2,236 million) and other equity instruments amounting to €250 million (December 31, 2012: €250 million).

Figure 4 shows an overview of the features and terms and conditions of the **equity instruments** making up the other Tier 1 capital instruments before taking account of any consolidation positions.

As at December 31, 2013, **Tier 2 capital** before capital deductions pursuant to section 10 (2b) KWG amounted to €1,637 million (December 31, 2012: €926 million).

FIG. 3 – STRUCTURE OF CAPITAL

| € million | Dec. 31, 2013 | Dec. 31, 2012 |
|---|---|---|
| **Equity instruments** | | |
| Paid-in capital | 6,010 | 5,740 |
| Other eligible reserves | – | – |
| of which: Tier 1 capital with redemption incentives | – | – |
| Fund for general banking risks pursuant to section 340g HGB | 6,197 | 5,096 |
| Other Tier 1 capital instruments | 2,464 | 2,486 |
| of which: Other Tier 1 capital pursuant to section 10 (4) KWG | 2,214 | 2,236 |
| of which: Other Tier 1 capital (fixed-term or with redemption incentives) | 250 | 250 |
| Deductions from Tier 1 capital pursuant to section 10 (2a) sentence 2 KWG | -683 | -1,137 |
| of which: Deductions from Tier 1 capital pursuant to section 10 (6) and (6a) KWG | -270 | -796 |
| Total Tier 1 capital pursuant to section 10 (2a) KWG | 13,988 | 12,185 |
| Total Tier 2 capital pursuant to section 10 (2b) KWG and eligible Tier 3 capital pursuant to section 10 (2c) KWG | 1,282 | 129 |
| **Total modified available equity pursuant to section 10 (1d) KWG and eligible Tier 3 capital pursuant to section 10 (2c) KWG** | **15,270** | **12,314** |
| For information: | | |
| Total capital deductions pursuant to section 10 (6) and (6a) KWG | -709 | -1,593 |
| Total capital deductions pursuant to section 10 (2b) sentence 2 KWG | -355 | -797 |

A significant component of the Tier 2 capital was represented by subordinated capital in accordance with section 10 (5) and (5a) KWG amounting to a total of €3,360 million (December 31, 2012: €2,840 million). Figure 5 provides an overview of the positions, features, and terms and conditions related to this subordinated capital.

DZ BANK **compares loan loss allowances** at both individual-institution and banking group level pursuant to section 105 SolvV by comparing the computed expected losses on the IRBA asset classes of central governments, institutions, corporates and retail business with the amounts recognized in the annual or interim financial statements for actual or potential impairment losses arising from the risk of counterparty-related losses on these IRBA exposures. DZ BANK classifies the write-down surplus computed at both individual institution and banking-group level as part of Tier 2 capital pursuant to section 10 (2b) no. 9 KWG. This classification is capped at 0.6 percent of the risk-weighted IRBA exposure.

In addition to subordinated capital, Tier 2 capital on the reporting date included a write-down surplus pursuant to section 10 (2b) no. 9 KWG. The DZ BANK banking group's eligible write-down surplus as at December 31, 2013 was calculated to be €226 million (December 31, 2012: €332 million). Consequently, the allowances for losses on loans and advances recognized for the IRBA exposures in the corporates, institutions, central governments, and retail business asset classes exceeded the expected losses for these exposures.

Capital deductions relate to pro-rata goodwill and 50 percent of the pro-rata deductible carrying amounts of long-term equity investments held by non-consolidated entities as well as securitization exposures with a risk weighting of 1,250 percent.

The **write-down deficits** and the **expected losses** for IRBA exposures pursuant to section 10 (6a) nos. 1 and 2 KWG, half of which are deducted from Tier 1 capital and half from Tier 2 capital, amounted to €2 million as at December 31, 2013 (December 31, 2012: €3 million).

As at December 31, 2013, the DZ BANK banking group did not hold any Tier 3 capital, a situation that was therefore unchanged on December 31, 2012.

The DZ BANK banking group's total **regulatory capital** as at December 31, 2013 amounted to €15,270 million (December 31, 2012: €12,314 million). The DZ BANK Group's available **aggregate risk cover** for economic capital management purposes was quantified at €16,652 million as at December 31, 2013 (December 31, 2012: €15,041 million). The aggregate risk cover originally calculated as at December 31, 2012 had

FIG. 4 – EQUITY INSTRUMENTS

| Issuer | Volume € million | Volume Currency million | Interest rate (%)[1] | Start date | Maturity | Cancelable as at |
|---|---|---|---|---|---|---|
| DG Funding LLC, New York | 363 | USD 500 | 3m USD LIBOR + 225bp | Dec. 23, 1999 | Open-ended | Mar. 31, 2013 |
| DZ BANK Capital Funding LLC, Wilmington | 300 | EUR 300 | 3m EURIBOR + 250bp | Nov. 7, 2003 | Open-ended | Feb. 11, 2013 |
| DZ Bank Capital Funding LLC II, Wilmington | 500 | EUR 500 | 3m EURIBOR + 160bp | Nov. 22, 2004 | Open-ended | Feb. 22, 2013 |
| DZ Bank Capital Funding LLC III, Wilmington | 350 | EUR 350 | 3m EURIBOR + 150bp | Jun. 6, 2005 | Open-ended | Mar. 6, 2013 |
| DZ BANK Perpetual Funding (Jersey) Limited, St. Helier | 45 | EUR 45 | 3m EURIBOR + 110bp | Jan. 9, 2006 | Open-ended | Apr. 9, 2013 |
| DZ BANK Perpetual Funding (Jersey) Limited, St. Helier | 84 | EUR 84 | 3m EURIBOR + 80bp | Feb. 13, 2006 | Open-ended | Feb. 13, 2013 |
| DZ BANK Perpetual Funding (Jersey) Limited, St. Helier | 4 | EUR 4 | 3m EURIBOR + 100bp | Mar. 17, 2006 | Open-ended | Mar. 17, 2013 |
| DZ BANK Perpetual Funding (Jersey) Limited, St. Helier | 87 | EUR 87 | 3m EURIBOR + 80bp | Sep. 4, 2006 | Open-ended | Sep. 4, 2013 |
| DZ BANK Perpetual Funding (Jersey) Limited, St. Helier | 40 | EUR 40 | 3m EURIBOR + 50bp | Apr. 16, 2007 | Open-ended | Apr. 16, 2013 |
| DZ BANK Perpetual Funding (Jersey) Limited, St. Helier | 250 | EUR 250 | 12m EURIBOR + 325bp Moderate step-up from 2018: + 425bp | Sep. 24, 2008 | Open-ended | Sep. 24, 2013 |
| DZ BANK Perpetual Funding Private Issuer (Jersey) Limited, St. Helier | 290 | EUR 290 | First coupon 12m EURIBOR + 500bp thereafter 3m EURIBOR + 500bp | May 29, 2009 | Open-ended | Jul. 1, 2014 |
| DZ BANK Perpetual Funding Private Issuer (Jersey) Limited, St. Helier | 210 | EUR 210 | 8.884% fixed | May 29, 2009 | Open-ended | Jul. 1, 2014 |

1 bp = basis points

amounted to €15,326 million. This amount has been restated as a result of the need for an adjustment in accordance with IAS 8.41 et seq. The adjustment was required because of hidden liabilities at DZ BANK.

The objective of both capital concepts is to ensure capital adequacy; in other words, the relevant capital components are available to cushion losses. The regulatory capital of the DZ BANK banking group is derived from the provisions of KWG. It is based on the carrying amounts recognized under HGB and essentially comprises the equity reported on the balance sheet, hybrid capital instruments, and subordinated liabilities that are modified with respect to various components that are reported on the balance sheet or are relevant for measurement purposes. By contrast, the components of economic capital used to provide aggregate risk cover for the DZ BANK Group are based on International Financial Reporting Standards (IFRS) and include equity as well as hidden reserves. The components of R+V's equity are also included in the economic capital used to provide aggregate risk cover.

FIG. 5 – SUBORDINATED CAPITAL PURSUANT TO SECTION 10 (5) AND (5A) KWG

| Issuer | Volume | | Interest rate (%)[1] | Start date | Maturity |
|---|---|---|---|---|---|
| | € million | Currency million | | | |
| DZ BANK | 211 | EUR 275 | 7.4; EURIBOR + 3.5 | 1997–1999 | 2018 |
| DZ BANK | 64 | EUR 64 | 7.1 | 2008 | 2020 |
| DZ BANK | 69 | EUR 69 | 4.950–7.500 | 1995–2009 | 2014 |
| DZ BANK | 88 | EUR 88 | 4.000–6.710 | 2000–2010 | 2015 |
| DZ BANK | 6 | USD 15 | 3.120–4.600 | 2010 | 2015 |
| DZ BANK | 202 | EUR 202 | 3.750–6.250 | 2001–2010 | 2016 |
| DZ BANK | 398 | EUR 398 | 3.250–6.000 | 2003–2012 | 2017 |
| DZ BANK | 102 | CHF 125 | EURIBOR + 240bp | 2012 | 2017 |
| DZ BANK | 581 | EUR 581 | 3.600–7.400/ EURIBOR + 350bp | 2003–2008 | 2018 |
| DZ BANK | 26 | EUR 26 | 1.9–3.175/ EURIBOR + 1.65% | 2013 | 2018 |
| DZ BANK | 298 | EUR 298 | 2.433–7.273 | 1999–2009 | 2019 |
| DZ BANK | 285 | EUR 285 | 2.2–3 | 2013 | 2019 |
| DZ BANK | 6 | USD 8 | 4.0 | 2013 | 2019 |
| DZ BANK | 305 | EUR 305 | 3.574–7.150 | 2004–2010 | 2020 |
| DZ BANK | 20 | EUR 20 | 3.1–3.2 | 2013 | 2020 |
| DZ BANK | 10 | EUR 10 | 7.000 | 2009 | 2021 |
| DZ BANK | 1 | EUR 1 | 3.640 | 2013 | 2021 |
| DZ BANK | 136 | EUR 136 | 3.3–3.75 | 2013 | 2022 |
| DZ BANK | 27 | EUR 27 | 4.039–7.250 | 2003 | 2023 |
| DZ BANK | 279 | EUR 279 | 3.23–4.37 | 2013 | 2023 |
| DZ BANK | 98 | CHF 120 | 3.240 | 2013 | 2023 |
| DG HYP | 1 | EUR 1 | 6.500 | 2001 | 2014 |
| DG HYP | 1 | EUR 1 | 5.020 | 2003 | 2015 |
| DG HYP | 3 | EUR 3 | 5.680 | 2003 | 2018 |
| DG HYP | 9 | EUR 8 | 6.500 | 2001 | 2021 |
| DG HYP | 25 | EUR 25 | 6.610 | 2002 | 2022 |
| DG HYP | 10 | EUR 10 | 6.140 | 2003 | 2023 |
| DZ PRIVATBANK S.A. | 15 | EUR 15 | 6.000 | 1999 | 2019 |
| DVB | 10 | EUR 10 | 6.000–6.110 | 2003 | 2018 |
| DVB | 79 | EUR 79 | 3.95–4 | 2013 | 2018 |

1 bp = basis points

**Financial conglomerate solvency** is the amount equating to the difference between the total of eligible capital in the financial conglomerate and the total of solvency requirements for the conglomerate. The coverage ratio is calculated by dividing capital by the solvency requirement amounts. The resulting ratio must be at least 100 percent.

On the basis of a provisional calculation, the DZ BANK financial conglomerate's eligible capital as at December 31, 2013 amounted to €16,192 million (December 31, 2012: €13,014 million). On the other side of the ratio, the provisional solvency requirement amounted to €9,133 million (December 31, 2012: €9,192 million), producing a provisional coverage ratio of 177.3 percent (December 31, 2012: 141.6 percent), significantly in excess of the regulatory minimum requirement. The substantial rise in the coverage ratio was mainly attributable to a marked improvement in the capital base achieved by retaining profits.

## 3.3. CAPITAL REQUIREMENTS

(Disclosure pursuant to section 325 (2) SolvV)

Figures 6 and 7 show the capital requirements in relation to the risk types of relevance for regulatory purposes (credit risk, market risk, and operational risk). These figures cover all the entities consolidated for regulatory purposes in the DZ BANK banking group.

The difference between the regulatory capital requirement, measured at €6,828 million as at December 31, 2013 (December 31, 2012: €7,148 million), and the economic risk capital requirement, measured at €7,956 million as at December 31, 2013 (December 31, 2012: €7,556 million), is largely attributable to the fact that additional types of risk (technical risk of a home savings and loan company, actuarial risk, and business risk) are backed by capital for the purposes of economic risk capital management, whereas these risks are not backed by capital for regulatory purposes. The higher figures for economic risk capital with respect to market risk and operational risk (which are backed by capital for both economic risk capital management and regulatory purposes) are due to the inclusion of R+V, which is omitted for regulatory purposes. In addition, interest-rate risk in the banking book is included in the calculation of the economic capital requirement for market risk. The decline in the regulatory capital requirement was mainly attributable to the reduction in the portfolio of loans and advances to banks and businesses.

The fact that the economic risk capital required for credit risk is much lower than the regulatory capital requirement is largely attributable to more conservative assumptions used in the regulatory approaches to the risk modeling of the credit portfolio. In addition, the inclusion of netting agreements and the treatment of collateral differ depending on whether economic risk capital requirements or regulatory requirements are being determined.

Internal risk models are used and diversification effects between the various risk types are extensively recognized for the purposes of economic risk capital management. This gives rise to a more institution-specific risk measurement than is the case with the measurement methods prescribed for regulatory purposes.

FIG. 6 – CAPITAL REQUIREMENTS (PART 1)

| € million | Dec. 31, 2013 | Dec. 31, 2012 |
|---|---|---|
| **1 Credit risk** | | |
| **1.1 Standardized Approach to credit risk** | | |
| Central governments | 1 | 1 |
| Regional governments and local authorities | 35 | 39 |
| Other public-sector entities | 4 | 6 |
| Multilateral development banks | – | – |
| International organizations | – | – |
| Institutions | 29 | 28 |
| Covered bonds issued by institutions | 7 | 7 |
| Corporates | 561 | 702 |
| Retail business | 223 | 250 |
| Exposures collateralized by real estate | 25 | 53 |
| Investment fund units | 46 | 38 |
| Other exposures | 59 | 68 |
| Past due exposures | 46 | 57 |
| Total credit risk under the Standardized Approach | 1,036 | 1,249 |
| **1.2 IRB approaches** | | |
| Central governments | 36 | 42 |
| Institutions | 606 | 725 |
| Corporates | 2,044 | 2,015 |
| Retail business | 910 | 900 |
| of which: Mortgage-backed | 463 | 465 |
| Qualified revolving | – | – |
| Other retail business | 447 | 435 |
| Other non credit-obligation assets | 87 | 133 |
| Total under IRB approaches | 3,683 | 3,815 |
| **1.3 Securitizations** | | |
| Securitizations under the Standardized Approach to credit risk | 173 | 221 |
| Securitizations under IRB approaches | 230 | 283 |
| Total securitizations | 403 | 504 |
| **1.4 Long-term equity investments** | | |
| Long-term equity investments under IRB approaches | 60 | 188 |
| of which: Internal modeling approach | – | – |
| PD/LGD approach | 29 | 163 |
| Simple risk-weighting approach | 31 | 25 |
| Exchange-traded equity investments | 8 | 9 |
| Equity investments not exchange-traded but part of a diversified portfolio | 8 | 4 |
| Other equity investments | 15 | 12 |
| Equity investments exempted from IRB approaches and included in Standardized Approach to credit risk | 269 | 71 |
| Total long-term equity investments | 329 | 259 |
| **Total credit risk** | **5,451** | **5,827** |

FIG. 7 – CAPITAL REQUIREMENTS (PART 2)

| € million | Dec. 31, 2013 | Dec. 31, 2012 |
|---|---|---|
| **2 Market risk** | | |
| Standardized approach | 76 | 119 |
| of which: Trading book risk exposures | 25 | 48 |
| of which: Interest-rate risk | 25 | 48 |
| of which: General and specific price risk (net interest-rate exposure) | 4 | 4 |
| Specific price risk for securitization exposures in trading book | 8 | 18 |
| Specific price risk in correlation trading portfolio | 12 | 26 |
| Equity price risk | – | – |
| Currency risk | 51 | 68 |
| Commodity risk | 1 | 2 |
| Other risk | – | – |
| Internal modeling approach | 616 | 526 |
| Total market risk | 692 | 645 |
| **3 Operational risk** | | |
| Operational risk under Basic Indicator Approach | – | – |
| Operational risk under Standardized Approach | 685 | 676 |
| Operational risk under AMA | – | – |
| **Total capital requirements** | **6,828** | **7,148** |

## 3.4. CAPITAL RATIOS

(Disclosure pursuant to section 325 (2) SolvV)

The regulatory capital ratios for the DZ BANK banking group can be seen in figure 8. These ratios illustrate the relationship between risk-weighted exposures and the regulatory capital components in the DZ BANK banking group. The figures disclosed for the entities in the DZ BANK banking group are in accordance with the applicable country-specific legislation and do not include the effects of intra-group consolidation.

The capital ratios for the DZ BANK banking group and the entities belonging to it as at December 31, 2013 were in each case well above the minimum ratios prescribed for regulatory purposes (total capital ratio of 8.0 percent, Tier 1 capital ratio of 4.0 percent), as they were as at December 31, 2012.

FIG. 8 – CAPITAL RATIOS IN THE DZ BANK BANKING GROUP

| Entity | Total capital ratio | | Tier 1 capital ratio | |
|---|---|---|---|---|
| | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 |
| **DZ BANK banking group** | **17.9%** | 13.8% | **16.4%** | 13.6% |
| DZ BANK | 31.5% | 26.7% | 20.5% | 17.7% |
| BSH | 35.0% | 35.6% | 35.0% | 35.6% |
| DVB (banking group) | 21.6% | 23.2% | 19.1% | 20.2% |
| DZ BANK Ireland | 22.9% | 10.0% | 22.9% | 8.6% |
| DZ PRIVATBANK S.A. | 27.9% | 21.4% | 26.6% | 20.5% |
| DZ PRIVATBANK Schweiz | 38.4% | 34.0% | 38.2% | 34.0% |
| TeamBank | 12.9% | 13.2% | 11.1% | 10.8% |

Because the waiver pursuant to section 2a KWG has been applied to DG HYP, capital ratios and other ratios are no longer calculated for this company at individual institution level.

# 4. CREDIT RISK

## 4.1. PRINCIPLES AND OBJECTIVES OF CREDIT RISK MANAGEMENT

The objectives and principles of credit risk management (disclosure pursuant to section 322 SolvV) are presented in section 8 of the opportunity and risk report.

## 4.2. RATING SYSTEMS

### 4.2.1. Rating systems for asset classes under the Standardized Approach to credit risk

NOMINATED RATING AGENCIES

(Disclosure pursuant to section 328 (1) nos. 1 and 2 SolvV)

The rating agencies Standard & Poor's Ratings Services (Standard & Poor's), Moody's Investors Service (Moody's), and Fitch Ratings Ltd. (Fitch) are used to help determine the capital requirements for all asset classes under the Standardized Approach to credit risk. The ratings of OECD export insurance agencies are also used. Competing external ratings are included in the calculation of risk-weighted exposure in accordance with sections 44 and 45 SolvV.

FIG. 9 – RATING SYSTEMS DEVELOPED BY DZ BANK AND THEIR USE BY OTHER ENTITIES IN THE DZ BANK BANKING GROUP

| | | | | | Asset class | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Corporates | | | | Retail business | | |
| **Rating system** | **DZ BANK** | **BSH** | **DG HYP** | **DVB** | **Central governments** | **Institutions** | **Long-term equity investments** | **Securitizations** | **Corporates (narrow sense)** | **SMEs** | **Specialized financial services** | **Receivables purchased** | **Mortgage-backed** | **Qualified revolving** | **Other** |
| VR rating for large and medium-sized companies | ● | | ● | | | | ● | | ● | | | | | | |
| VR rating for major corporates | ● | | | | | | ● | | ● | | | | | | |
| VR rating for banks | ● | ● | ● | ● | | ● | ● | | | | | | | | |
| VR rating for countries | ● | ● | ● | ● | ● | | | | | | | | | | |
| Project finance | ● | | | | | | | | ● | | | | | | |
| Asset finance | ● | | | | | | | | ● | | | | | | |
| Acquisition finance | ● | | | | | | | | ● | | | | | | |
| Internal Assessment Approach | ● | | | | | | | ● | | | | | | | |
| Investment fund rating | ● | | | | | | | | ● | | | | | | |

TRANSFER OF CREDIT RATINGS FROM BOND ISSUES TO ASSETS

(Disclosure pursuant to section 328 (1) no. 3 SolvV)

External credit ratings awarded by recognized rating agencies or export insurance agencies are transferred to assets of the DZ BANK banking group in accordance with the requirements of sections 42 to 47 SolvV. No issuer credit ratings were transferred to similar assets or to assets of equal or higher ranking. This applies to all asset classes under the Standardized Approach to credit risk.

## 4.2.2. Rating systems for IRBA asset classes

SUMMARY OF INTERNAL RATING SYSTEMS

(Disclosure pursuant to section 335 (1) no. 1 SolvV)

In 2007, the DZ BANK banking group received official approval from BaFin to calculate its capital requirements using the foundation IRB approach and the IRB approach for retail business. Figures 9, 10, and 11 show the approved internal rating systems used by the DZ BANK banking group to determine

FIG. 10 – PROPRIETARY RATING SYSTEMS DEVELOPED BY BSH

| | Asset class | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Corporates | | | | Retail business | | |
| **Rating system** | **Central governments** | **Institutions** | **Long-term equity investments** | **Securitizations** | **Corporates (narrow sense)** | **SMEs** | **Specialized financial services** | **Receivables purchased** | **Mortgage-backed** | **Qualified revolving** | **Other** |
| **Mortgage-backed retail business** | | | | | | | | | | | |
| Application scoring | | | | | | | | | ● | | |
| Behavioral scoring | | | | | | | | | ● | | |
| LGD scoring | | | | | | | | | ● | | |
| EAD | | | | | | | | | ● | | |
| **Non-mortgage-backed retail business** | | | | | | | | | | | |
| Application scoring | | | | | | | | | | | ● |
| Behavioral scoring | | | | | | | | | | | ● |
| LGD scoring | | | | | | | | | | | ● |
| EAD | | | | | | | | | | | ● |

the parameters for calculating its regulatory capital requirements based on the IRB approaches. The overviews cover the rating systems developed and applied by DZ BANK and also made available to BSH, DG HYP, and DVB, as well as those specially customized to the respective business models of BSH and DG HYP.

In addition to the rating systems developed by DZ BANK, DVB uses separate rating systems for aviation (aircraft), aviation (aircraft engines), land transport, shipping (containers), and shipping (vessels) to classify the risks for the asset class of corporates (in the narrow sense of the term). When using DZ BANK's VR rating system for banks, DVB applies its own LGD estimates.

Since the newly developed rating system for open-ended real estate funds was accepted by the German banking regulators in December 2013, DG HYP has been using this rating system to determine its regulatory capital requirement in accordance with the IRB approach.

TeamBank uses its consumer-finance rating system to determine the credit ratings for loan exposures in its retail business asset class. Credit card limits and associated easyCredit loan facilities related to credit cards, easyCredit loans to self-employed individuals, and consumer loans marketed in Austria, which also form part of this asset class, are included in the Standardized Approach to credit risk.

DESCRIPTION OF INTERNAL RATING SYSTEMS

(Disclosure pursuant to section 335 (1) no. 2a SolvV)

Application of the IRB approaches requires the use of internal rating systems to classify the risks of the exposures measured using the IRB approaches and to classify guarantors. Internal rating systems are considered suitable if they meet the minimum requirements for use of the IRB approaches pursuant to section 56 SolvV. Apart from meeting the requirements relating to methodology and process organization, the rating systems must have demonstrated their suitability for classifying existing and new business. Rating systems within the meaning of section 60 (1) SolvV are defined as the sum total of all methods, procedures, monitoring,

FIG. 11 – PROPRIETARY RATING SYSTEMS DEVELOPED BY DG HYP

| | Asset class | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Corporates | | | | Retail business | | |
| **Rating system** | **Central governments** | **Institutions** | **Long-term equity investments** | **Securitizations** | **Corporates (narrow sense)** | **SMEs** | **Specialized financial services** | **Receivables purchased** | **Mortgage-backed** | **Qualified revolving** | **Other** |
| **VR rating systems** | | | | | | | | | | | |
| VR rating for developers | | | | | | | ● | | | | |
| VR rating for closed-end inv. funds | | | | | | | ● | | | | |
| VR rating for investors | | | | | ● | | | | | | |
| VR rating for real-estate companies | | | | | | | ● | | | | |
| VR rating for project developers | | | | | | | ● | | | | |
| VR rating for housing companies | | | | | ● | | | | | | |
| VR rating for open-ended real-estate funds | | | | | ● | | | | | | |
| **Rating systems for retail business with non-self-employed customers** | | | | | | | | | | | |
| Application scoring (retail)/ behavioral scoring (retail) | | | | | | | | | ● | | |
| Estimated LGD (retail IRB) | | | | | | | | | ● | | |
| **Rating systems for retail business with self-employed customers** | | | | | | | | | | | |
| Application scoring (retail)/ behavioral scoring (retail) | | | | | | | | | ● | | |
| Estimated LGD (retail IRB) | | | | | | | | | ● | | |
| Specialized real-estate lending (outside Germany) | | | | | | | ● | | | | |

and control processes, as well as data collection and processing systems that support the measurement of credit risks, the allocation of IRBA exposures to rating categories or risk pools, and the quantification of default and loss estimates for IRBA exposures.

Most of the internal rating systems have been developed as the standard for the entire cooperative financial network by DZ BANK as part of VR Control, a project carried out by the Bundesverband der Deutschen Volksbanken und Raiffeisenbanken e.V., Berlin, (BVR) [National Association of German Cooperative Banks] that also incorporates WGZ BANK AG Westdeutsche Genossenschafts-Zentralbank, Düsseldorf, the network's regional banking associations, computing centers, and primary banks. This uniform approach for the entire cooperative network reaps substantial efficiency gains for both the two cooperative central institutions and the local cooperative banks. If DZ BANK requires rating systems for specialist segments that go beyond the scope of the rating systems developed for the cooperative network, DZ BANK will develop any such rating systems itself.

The internal rating systems used by the entities in the DZ BANK banking group feature a modular construction; they generally consist of a quantitative module and a qualitative module. When rating systems are developed, various factors affecting credit ratings are identified and initially developed in isolation. The next stage is to take account of interdependencies between individual modules at the level of the overall model. The advantage of this approach is that individual modules of a particular rating system can be revised, for example, in the light of new methodical-conceptual or empirical findings, without any other module being affected by this. This reduces the cost of developing and refining rating systems.

The **VR rating system** standardizes rating methods and ensures comparability of rating results within the Volksbanken Raiffeisenbanken cooperative financial network. The VR rating system is differentiated by customer segment and is gradually being extended to cover all relevant customer groups.

The section below presents the main rating systems used by the DZ BANK banking group. These rating systems have been approved by BaFin for the purposes of calculating regulatory capital using the foundation IRB approach. Each of these rating systems differentiates between a total of 25 rating categories; 20 of these categories are for non-defaulting counterparties and 5 are for defaulting counterparties.

The **VR rating for large and medium-sized companies** is applied to the regulatory asset class of corporates (in the narrow sense of the term). This rating system covers the central institution's typical corporate customers that generate revenue of up to €1 billion. It is applied, among other things, to loans jointly extended by entities in the DZ BANK banking group to local cooperative banks or their customers and, in addition, is used by all local cooperative banks in Germany throughout the cooperative network. A characteristic of the VR rating system devised for large and medium-sized companies is the large number of historical data records of defaulting and non-defaulting customers that were collected throughout the cooperative financial network. Given this ideal data scenario, a good/bad analysis was selected as the development method.

The **VR rating for major corporate customers** is used for large domestic and international customers that generate revenue in excess of €1 billion and belong to the asset class of corporates (in the narrow sense of the term). A characteristic of the VR rating system devised for major corporate customers is the small number of defaulting customers. Given this data scenario, the external rating method was selected as the development method. Under this approach, data was collected from many financial years for a large number of externally rated international companies from various sectors.

The **VR rating for banks** is used for the asset class of institutions. This rating system is applied to German and international banks, irrespective of legal structure or size. The external rating method was again chosen as the development method. Under this approach, data was collected from externally rated banks worldwide.

The **VR rating for countries** is used for the asset class of central governments. Given the international orientation of the DZ BANK banking group, the country rating is very important for risk-based management of the business conducted by the entities in the DZ BANK banking group. The country rating segment is concerned exclusively with credit ratings for central governments and not with credit ratings for central banks, other foreign public-sector entities, or international institutions. Under this rating system design, which is also based on the external rating method, countries are broken down into industrialized and developing nations. The reasons for this breakdown are the different risk factors and the need for a different interpretation of the factors relevant to credit quality when analyzing industrialized and developing nations' ability and willingness to pay.

The internal rating systems specified below are used exclusively by DZ BANK within the banking group to calculate capital requirements:

– The **project finance rating system** is used to assess complex transport and infrastructure projects. As there are only a small number of external ratings available for project finance and an insufficient number of internal data sets, a combination of ratings by experts, cash flow simulations and an external rating method were selected to develop the rating model.

- The **asset finance rating system** is used to assess investment projects in the transportation sector (currently exclusively shipping) that are financed on the basis of the cash flows generated by the asset. This system is based on ratings by experts.

- The **acquisition finance rating system** is used in the provision of funding for acquisitions of companies or parts of companies and majority and minority stakes, irrespective of the legal structure of each transaction. As there is also an insufficient number of external ratings available for acquisition financing and, similarly, an insufficient quantity of internal data on defaults, a rating method based on the assessments of internal experts was chosen to develop the rating system.

- The **Internal Assessment Approach** is used to rate liquidity lines and credit enhancements that are made available to programs for the purpose of issuing asset-backed commercial paper (ABCP).

- The **investment fund rating system** is used for funds in Germany and Luxembourg that mainly invest in liquid fixed assets. Because neither default data for funds in this scope of application nor external credit ratings for investment funds are available, a simulation-based approach using time series of fund returns combined with a qualitative sub-module were selected to develop the system.

A reconciliation of external and internal ratings, which illustrates the relationship of internal allocations to rating categories and external credit ratings, is presented in figure 15 in section 8.4.1 of the opportunity and risk report.

### APPROVED TRANSITIONAL RULES FOR IRB APPROACHES (PARTIAL USE)

(Disclosure pursuant to section 335 (1) no. 1 SolvV)

Capital requirements for credit risk in the entities within the DZ BANK banking group are always calculated using the IRB approaches as well as the Standardized Approach to credit risk (partial use). From a regulatory perspective, use of the Standardized Approach to credit risk by institutions that use the IRB approach is limited, and threshold values must be complied with. In order to monitor compliance, the cover ratio as defined by section 67 SolvV is calculated on an ongoing basis.

Because DVB has been using the advanced IRB approach to report its capital requirements for credit risk since January 1, 2008, it is exempted under section 67 (4) no. 6 SolvV from the calculation of the DZ BANK banking group's cover ratio.

The individual IRBA institutions use internal rating systems to cover their main business lines. Only segments that are immaterial in terms of their level of credit risk will continue to use the Standardized Approach to credit risk indefinitely. The other entities use the Standardized Approach to credit risk.

In the foundation IRB approach, the probability of default (PD) is estimated by the institutions themselves, while the loss given default (LGD) is specified by regulators. LGD values in the IRB approach for retail business and the advanced IRB approach are also based on the institutions' own estimates. By contrast, the Standardized Approach to credit risk is based exclusively on regulatory risk weightings that are set on the basis of external ratings.

For each institution that uses the IRB approach there is an implementation plan that ensures compliance with the thresholds prescribed by SolvV or approved by the regulator. Compliance with these thresholds is one of the preconditions for using the IRB approaches.

### USE OF INTERNAL ESTIMATES FOR PURPOSES OTHER THAN CALCULATING RISK-WEIGHTED EXPOSURES UNDER THE IRB APPROACH

(Disclosure pursuant to section 335 (1) no. 2b SolvV)

Internal rating systems are at the heart of credit risk management for the entities in the DZ BANK banking group. The credit ratings used for internal management purposes and regulatory reporting purposes are identical. Internal rating systems are used in the following areas:

- The **exposure limits** for lending or trading transactions for which there is a risk of default are partly determined by internal ratings.

- The profit-contribution-based **pre-analysis of loans** carried out by relationship managers in the course of acquiring new business is based on key cost determinants, i.e. the standard risk costs and economic capital costs involved in covering expected and unexpected losses. Both cost components are based on internal ratings.

– The **level of authority** for decision-makers in trading and back-office units to approve loan applications is also determined by internal ratings.

– When **loans are analyzed ex-post** after a transaction has been closed, the profit contributed by individual transactions, customers, and profit centers is primarily determined (similarly to the pre-analysis of loans) by the standard risk costs and economic capital costs based on internal ratings.

– During the term of a loan, internal rating classes determine the extent to which a **counterparty's financial status is monitored**.

– **Specific loan loss allowances and portfolio loan loss allowances are planned** on the basis of standard risk costs that are determined by internal ratings.

– The risk of unexpected losses is measured using **credit value-at-risk systems** that are based on internal credit ratings and the corresponding default probabilities as well as further risk parameters.

– And finally, internal ratings play a key role in internal **credit risk reporting**.

#### CONTROL MECHANISMS FOR THE RATING SYSTEMS

(Disclosure pursuant to section 335 (1) no. 2d SolvV)

The internal rating systems used are validated once a year on the basis of internal and external data. **Validation** consists partly of quantitative analysis aimed at measuring the rating systems' discriminant power and stability and at calibrating them. Validation also includes qualitative analysis that tests the use of these rating systems for internal management purposes with respect to their model design and data quality. In addition, pool validation is carried out on the standard rating systems used throughout the cooperative financial network. When pool validation is conducted, the rating-related data of all banks that use the rating system concerned is collected and analyzed in the same way as in the internal bank validation process. If validations reveal any room for improvement, improvements are made when the rating systems are refined.

The monitoring function also includes checking that the rating systems are being properly used, regularly estimating the risk parameters derived from them, and reviewing these estimates. The findings of these monitoring activities are integrated into the internal reporting system.

The rating systems used by DZ BANK are approved by its Board of Managing Directors. The Board of Managing Directors is regularly informed about the rating systems' integrity and the rating results in the DZ BANK Group's quarterly credit risk report.

At DZ BANK, a dedicated organizational unit in the Group Controlling division is responsible for regularly reviewing the adequacy and integrity of the rating systems used to manage credit risk. In addition, this unit is responsible for ensuring compliance with regulatory requirements in respect of rating systems, for developing and implementing new rating models, and for adapting existing models.

The Internal Audit function is independent of this process and regularly reviews the adequacy of internal rating systems, including compliance with the minimum requirements for using these systems.

Similar arrangements are in place at all relevant entities in the DZ BANK banking group.

#### PROCESS OF ASSIGNING EXPOSURES AND BORROWERS TO RATING CATEGORIES AND RISK POOLS

(Disclosure pursuant to section 335 (1) no. 3 SolvV)

Every borrower clearly falls into a defined area of a rating system based on industrial sector codes, revenue characteristics, and business specifics. As a rule, it is not possible to conduct business that bears a default risk with borrowers who do not have an internal rating. All rating systems are assigned – without any overlaps – to one regulatory asset class. The relevant rating models are used as part of the credit application and approval process to classify the applicant or the guarantor. The classification of every borrower or guarantor must be reviewed at least once a year. All relevant input factors and ratings conducted are saved in the data processing systems so that there is a complete rating history for every customer and every transaction.

## 4.3. COLLATERAL MANAGEMENT

(Disclosure pursuant to section 335 (1) no. 2c and section 336 (1) SolvV)

The methods used by the DZ BANK banking group to mitigate credit risk are described in section 8.4.6 of the opportunity and risk report. This section includes disclosures relating to the following:

- Collateral strategy and secured transactions
- Types of collateral
- Management of traditional loan collateral
- Collateral management
- Central counterparties (CCP)

## 4.4. MANAGING DERIVATIVE COUNTERPARTY RISK EXPOSURE IN THE BANKING BOOK AND TRADING BOOK

(Disclosure pursuant to section 326 (1) SolvV)

The following information on the management of derivative counterparty risk exposure in the banking book and trading book of the DZ BANK banking group can be found in the opportunity and risk report (the relevant section of the opportunity and risk report is shown in parentheses in each case):

- Internal procedure for allocating capital to cover derivative counterparty risk exposures (section 8.4.8) and procedure for determining the upper limits for individual counterparties (section 8.4.4)
- Procedure for obtaining collateral (section 8.4.6)
- Handling of correlations of market risk and counterparty risk (section 8.4.5)
- Impact from the amount of collateral that the bank would have to provide in the event of a credit rating downgrade (section 8.4.5).

## 4.5. RECOGNITION OF ALLOWANCES FOR LOSSES ON LOANS AND ADVANCES

The **policies and procedures governing the recognition of allowances for losses on loans and advances** applicable to the entities in the DZ BANK banking group (disclosure pursuant to section 327 (1) no. 2 SolvV) and other **accounting-related details on credit risk** (disclosure pursuant to section 327 (1) no. 1 SolvV) are described in section 8.4.7 of the opportunity and risk report. The term ‘in arrears’ mentioned in section 327 (1) SolvV has the same meaning as the term ‘past due’ as used by the DZ BANK banking group. The expressions ‘non-performing’ and ‘in default’ are also used synonymously.

## 4.6. LENDING VOLUME, ALLOWANCES FOR LOSSES ON LOANS AND ADVANCES, AND LOSSES INCURRED IN LENDING BUSINESS

### 4.6.1. Notes on quantitative disclosures

Disclosures relating to lending volume, allowances for losses on loans and advances, and losses incurred in lending business are broken down as follows in this risk report:

- Section 4.6.2 presents information on the total lending volume and allowances for losses on loans and advances. This information is based on the DZ BANK Group’s internal risk reports, which are submitted to DZ BANK’s Board of Managing Directors, although reference is also made to pertinent disclosures included in the opportunity and risk report.

- Sections 4.6.3 to 4.6.5 disclose portions of the total lending volume based on criteria prescribed for regulatory purposes, such as asset classes and risk-weighting bands. These disclosures also include losses in the IRBA credit portfolio.

- Sections 4.6.6 and 4.6.7 include further specific regulatory disclosures relating to the volume of collateralized lending and derivative counterparty risk exposures.

- The lending volume in connection with securitizations and the losses from such exposures are described in section 8.4 of this risk report. These disclosures are separate from the other disclosures relating to credit risk because securitizations also involve market risk, liquidity risk, and operational risk.

The disclosures on lending volume in the regulatory risk report and the opportunity and risk report required by commercial law differ in terms of the methodology they use in the sense that the internal reports – the basis for opportunity and risk reporting and the disclosures in section 4.6.2 of this regulatory risk report – are based on asset values measured before collateral and after deduction of the recognized allowances for losses on loans and advances, whereas in sections 4.6.3 to 4.6.7 of this regulatory risk report the relevant regulatory exposures are reported as the expected exposure at the time of potential default. In addition, the quantitative disclosures vary between the two risk reports owing to differences in the recognition of conversion factors for extended but undrawn credit lines.

The aggregate lending portfolio presented in section 4.6.2 is comparable with the aggregated regulatory subportfolios shown in figures 12 through 15 and in figure 30. However, the sum totals cannot be fully reconciled to one another because of differences in the definitions of key figures and the methods used to offset collateral. Further discrepancies arise from differences in the entities included in the consolidation and differences in the treatment of long-term strategic equity investments and credit insurance business at R+V.

### 4.6.2. Gross lending volume & allowances for losses on loans and advances

Disclosures applicable to both regulatory and commercial-law requirements in respect of gross lending volume and allowances for losses on loans and advances are presented in full in the opportunity and risk report. The regulatory requirements and the corresponding requirements under IFRS 7 are presented together. To ensure compliance with the IFRS 7 requirements on the use of the management approach, disclosure of gross lending volume and allowances for losses on loans and advances in the opportunity and risk report is based on the figures that are used for internal management purposes and that form the basis for reports submitted to the Board of Managing Directors.

Basing disclosure on the management approach is consistent with section 327 (2) SolvV in conjunction with the explanatory memorandum on the SolvV, under which the lending volume and the entities included may be defined according to the criteria applied internally. Because R+V is of material importance to the DZ BANK financial conglomerate, it is included in the presentation of both the gross lending volume and the allowances for losses on loans and advances.

The disclosures on the gross lending volume and allowances for losses on loans and advances are set out in section 8.5 of the opportunity and risk report, as follows:

– **Gross lending volume broken down by main geographical area and asset type** (disclosure pursuant to section 327 (2) no. 2 SolvV) is disclosed in figure 20 (‘Lending volume by country group’) in section 8.5.6.

– **Gross lending volume broken down by main sector and asset type** (disclosure pursuant to section 327 (2) no. 3 SolvV) is disclosed in figure 19 (‘Lending volume by sector, average lending volume’) in section 8.5.5.

– **Contractual residual maturities** (disclosure pursuant to section 327 (2) no. 4 SolvV) are disclosed in figure 21 (‘Lending volume by residual maturity’) in section 8.5.7.

– **Non-performing loans and loans in arrears broken down by main sector** (disclosure pursuant to section 327 (2) no. 5 SolvV) are disclosed by means of figure 22 (‘Lending volume past due but not impaired, by sector’) in section 8.5.7, figure 36 (‘Impaired lending volume, by sector’) in section 8.5.10, figure 28 (‘Allowances for losses on loans and advances, direct impairment losses, by sector – 2013’) in section 8.5.10, and figure 30 (‘Provisions for loan commitments and liabilities under financial guarantee contracts and loan commitments, by sector – 2013’) in section 8.5.10.

– **Non-performing loans and loans in arrears broken down by main geographic area** (disclosure pursuant to section 327 (2) no. 5 SolvV) are disclosed by means of figure 23 (‘Lending volume past due but not impaired, by country group’) in section 8.5.7, figure 37 (‘Impaired lending volume, by country group’) in section 8.5.10, figure 32 (‘Allowances for losses on loans and advances, direct impairment losses, by country group – 2013’) in section 8.5.10, and figure 34 (‘Provisions for loan commitments and liabilities under financial guarantee contracts and loan commitments, by country group – 2013) in section 8.5.10.

The disclosures related to **changes in allowances for losses on loans and advances** (disclosure pursuant to section 327 (2) no. 6 SolvV) are also covered by the abovementioned figures in the opportunity and risk report. The relevant information has not therefore been disclosed separately.

Significant discrepancies between the amounts as at December 31, 2013 and the **average values** for the year under review (disclosure pursuant to section 327 (2) no. 1 SolvV) are presented in the opportunity and risk report in section 8.5.3 and in figure 19 (‚Lending volume by sector, average lending volume') within section 8.5.5.

### 4.6.3. Exposures under the Standardized Approach to credit risk

(Disclosure pursuant to section 328 (2) and section 329 (2) SolvV)

Figure 12 shows the exposures assigned to the asset classes under the Standardized Approach to credit risk both including and excluding credit risk mitigation. The table also shows exposures to IRBA investments and to mortgage-backed securities, which are calculated in the IRB approach using the simple risk-weighting method, after credit risks have been mitigated. The classification of transactions in the regulatory risk-weighting categories depends on how the transactions are classified in the regulatory asset classes, on the credit ratings of borrowers and transactions, and on the collateral provided. The sum total of exposures after credit risks have been mitigated under the Standardized Approach to credit risk arises from the provision of personal collateral for IRBA transactions by counterparties that are rated according to the Standardized Approach to credit risk.

In some cases, the exposures reported after credit risks have been mitigated are larger than exposures before credit risks have been mitigated. This is because exposures where credit risks have been mitigated include exposures reported under the IRB approach that are backed by counterparties, in particular guarantors, that are rated according to the Standardized Approach to credit risk.

FIG. 12 –EXPOSURES UNDER THE STANDARDIZED APPROACH TO CREDIT RISK AND EXPOSURES SUBJECT TO THE SIMPLE RISK-WEIGHTING METHOD IN THE IRB APPROACH

| Risk weighting | Exposures before credit risk mitigation under the Standardized Approach to credit risk | | Exposures after credit risk mitigation | | | |
|---|---|---|---|---|---|---|
| | | | under the Standardized Approach | | Total exposures after credit risk mitigation under the IRB approach for investments and mortgage-backed securities under the simple risk-weighting method | |
| € million | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 |
| 0% | 116,996 | 115,233 | 117,056 | 116,202 | | |
| 10% | 276 | 295 | 276 | 295 | | |
| 20% | 3,488 | 3,790 | 3,297 | 3,582 | | |
| 35% | 511 | 434 | 469 | 414 | | |
| 50% | 767 | 1,617 | 781 | 1,814 | 1,209 | 651 |
| 70% | – | – | 9 | 1 | | |
| 75% | 3,796 | 4,231 | 3,718 | 4,133 | | |
| 100% | 12,670 | 11,810 | 9,881 | 9,020 | | |
| 150% | 324 | 405 | 300 | 377 | | |
| 190% | | | | | 52 | 15 |
| 200% | – | – | – | – | | |
| 290% | | | | | 35 | 38 |
| 350% | – | – | – | – | | |
| 370% | | | | | 49 | 39 |
| 1,250% | – | – | – | – | | |
| Capital deduction | – | – | – | – | | |
| Other risk weightings | 1,059 | 731 | 1,059 | 731 | | |
| **Total** | **139,888** | **138,556** | **136,844** | **136,581** | **1,345** | **743** |

### 4.6.4. Exposure under the IRB approach

Figures 13, 14, and 15 show the IRBA lending volume for borrowers and transactions that are classified on the basis of internal credit ratings. The rating systems used internally are unambiguously assigned to one regulatory asset class. The borrowers/transactions are assigned to a credit rating category based on their individual rating in the form of their specific default probability or expected loss. Classification as 'investment grade', 'non-investment grade', or 'default' is based on the corresponding default probabilities for each rating category on the standardized groupwide DZ BANK master scale. This rating scale is described in figure 15 in section 8.4.1 of the opportunity and risk report.

#### LENDING VOLUME BROKEN DOWN BY PD CATEGORY (EXCLUDING RETAIL) UNDER THE FOUNDATION IRB APPROACH

(Disclosure pursuant to section 335 (2) nos. 1, 2a, and 2c SolvV)

Figure 13 shows the following key figures:

– the total exposures and, in particular, exposures relating to undrawn loan commitments
– the average risk weighting of each exposure.

The disclosures are based on the IRBA asset classes (central governments, institutions, corporates, and long-term equity investments) and are also broken down by risk category. The exposure for undrawn credit lines is calculated by applying the credit conversion factors to the carrying amount. The average risk weightings reveal borrowers' credit ratings and the extent to which transactions are collateralized.

#### LENDING VOLUME BROKEN DOWN BY PD CATEGORY (EXCLUDING RETAIL) UNDER THE ADVANCED IRB APPROACH

(Disclosure pursuant to section 335 (2) nos. 1 and 2 SolvV)

Figure 14 comprises the following disclosures:

– The sum total of unutilized loan commitments, which is presented as the carrying amount of open loan commitments shown on the balance sheet
– the total exposures and, in particular, exposures relating to undrawn loan commitments
– the average exposure for undrawn loan commitments
– the average risk weighting of each exposure
– the average LGD.

The disclosures are again broken down according to the above IRBA asset classes and by risk category.

#### LOAN UTILIZATIONS AND LOAN COMMITMENTS FOR RETAIL PORTFOLIOS – EL-BASED RETAIL IRB APPROACH

(Disclosure pursuant to section 335 (2) nos. 2 and 3 SolvV)

Figure 15 shows the total exposures for the IRBA asset class of retail business broken down in each case by risk category. The expected loss (EL) categories reflect the range of the expected loss in basis points.

## 4.6.5. Losses incurred in lending business

### ACTUAL LOSSES INCURRED IN LENDING BUSINESS

(Disclosure pursuant to section 335 (2) nos. 4 and 5 SolvV)

The information given in figure 16 relates to the following asset classes: central governments, institutions, corporates (including small and medium-sized enterprises (SMEs), specialized financial services, and purchased receivables that are treated as corporate loans), investments that are backed by capital using individual probabilities of default (PD/LGD approaches), and retail business (broken down into mortgage-backed IRBA exposures, qualified revolving IRBA exposures, and other IRBA exposures).

Calculations of losses presented in figure 16 are based on the carrying amounts recognized under IFRS. Market-price-related write-downs on securities portfolios and long-term equity investments not managed according to their default probabilities are not shown. The information disclosed in the regulatory risk report includes the changes in allowances for losses on loans and advances, provisions for loan commitments, and liabilities from financial guarantee contracts reported in section 8.5.10 of the opportunity and risk report, as described below:

**FIG. 13 – LENDING VOLUME BROKEN DOWN BY PD CATEGORY (EXCLUDING RETAIL) UNDER THE FOUNDATION IRB APPROACH**

| € million | Investment grade | | | Non-investment grade | | | Default | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Asset class** | **Exposure** | | **Average risk weighting** | **Exposure** | | **Average risk weighting** | **Exposure** | | **Average risk weighting** | **Exposure** | | **Average risk weighting** |
| | **Total** | of which: Undrawn loan commit-ments | | **Total** | of which: Undrawn loan commit-ments | | **Total** | of which: Undrawn loan commit-ments | | **Total** | of which: Undrawn loan commit-ments | |
| Central govern-ments | **2,314** | 63 | 9.4% | **179** | – | 96.6% | **13** | – | – | **2,506** | 63 | 9.6% |
| Institutions | **32,699** | 170 | 18.3% | **1,742** | 7 | 57.6% | **801** | – | – | **35,241** | 178 | 19.1% |
| Corporates | **28,871** | 5,859 | 42.5% | **8,503** | 1,613 | 96.3% | **2,213** | 19 | – | **39,587** | 7,491 | 47.8% |
| of which: SMEs | **–** | – | – | **–** | – | – | **379** | – | – | **–** | – | – |
| Special-ized financial services | **11,562** | 1,663 | 38.3% | **1,195** | 195 | 123.2% | **334** | 4 | – | **13,092** | 1,862 | 45.1% |
| Receiv-ables pur-chased | **77** | – | 58.9% | **46** | – | 102.1% | **6** | – | – | **128** | – | 71.8% |
| Long-term equity investments | **353** | | 90.6% | **16** | | 198.4% | **2** | | – | **371** | – | 92.3% |
| **Total as at Dec. 31, 2013** | **64,237** | **6,092** | | **10,440** | **1,620** | | **3,029** | **19** | | **77,705** | **7,731** | |
| Total as at Dec. 31, 2012 | 73,891 | 6,924 | | **10,423** | 1,346 | | **2,525** | 44 | | **86,838** | 8,313 | |

FIG. 14 – LENDING VOLUME BROKEN DOWN BY PD CATEGORY (EXCLUDING RETAIL) UNDER THE ADVANCED IRB APPROACH

| € million | Investment grade | | | | | | Non-investment grade | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Asset class** | **Total amount of undrawn loan commitments** | **Exposure** | | | **Average LGD** | **Average risk weighting** | **Total amount of undrawn loan commitments** | **Exposure** | | | **Average LGD** | **Average risk weighting** |
| | | **Total** | of which: Undrawn loan commitments | Average exposure | | | | **Total** | of which: Undrawn loan commitments | Average exposure | | |
| Central governments | – | – | – | – | – | – | – | – | – | – | – | – |
| Institutions | – | 538 | – | – | – | 75.1% | – | – | – | – | – | – |
| Corporates | 181 | 2,727 | 181 | 100.0% | 8.9% | 9.8% | 854 | 17,396 | 854 | 100.0% | 4.5% | 18.7% |
| of which: SMEs | – | – | – | – | – | – | – | – | – | – | – | – |
| Specialized financial services | – | – | – | – | – | – | – | – | – | – | – | – |
| Receivables purchased | – | – | – | – | – | – | – | – | – | – | – | – |
| Long-term equity investments | | – | | – | – | – | | – | | – | – | – |
| **Total as at Dec. 31, 2013** | **181** | **3,265** | **181** | | | | **854** | **17,396** | **854** | | | |
| Total as at Dec. 31, 2012 | 225 | 3,495 | 225 | | | | 1,124 | 18,705 | 1,124 | | | |

FIG. 15 – LOAN UTILIZATIONS AND LOAN COMMITMENTS FOR RETAIL PORTFOLIOS – EL[1]-BASED RETAIL IRB APPROACH

| € million | Exposure for EL category 1 (EL=0 to 30bp) | | Exposure for EL category 2 (EL=31 to 70bp) | | Exposure for EL category 3 (EL>70bp) | | **Total** | |
|---|---|---|---|---|---|---|---|---|
| **Asset class** | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 |
| Mortgage-backed retail IRBA receivables | 26,516 | 25,463 | 3,472 | 3,272 | 2,956 | 2,818 | 32,944 | 31,553 |
| Qualified revolving retail IRBA receivables | – | – | – | – | – | – | – | – |
| Other retail IRBA receivables | 7,748 | 8,143 | 1,435 | 2,536 | 4,386 | 3,961 | 13,569 | 14,639 |
| **Total** | **34,264** | **33,606** | **4,907** | **5,808** | **7,342** | **6,779** | **46,513** | **46,193** |

1 Expected loss

| Default | | | | | | Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total amount of undrawn loan commitments | Exposure | | | Average LGD | Average risk weighting | Total amount of undrawn loan commitments | Exposure | | | Average LGD | Average risk weighting |
| | Total | of which: Undrawn loan commitments | Average exposure | | | | Total | of which: Undrawn loan commitments | Average exposure | | |
| – | – | – | – | – | – | – | – | – | – | – | – |
| – | – | – | – | – | – | – | 538 | – | – | 88.4% | 75.1% |
| 2 | 1,072 | 2 | 100.0% | 27.6% | – | 1,037 | 21,196 | 1,037 | 100.0% | 6.3% | 16.6% |
| – | – | – | – | – | – | – | – | – | – | – | – |
| – | – | – | – | – | – | – | – | – | – | – | – |
| – | – | – | – | – | – | – | – | – | – | – | – |
| | – | | – | – | – | | – | | – | – | – |
| **2** | **1,072** | **2** | | | | **1,037** | **21,733** | **1,037** | | | |
| 2 | 1,046 | 2 | | | | 1,351 | 23,246 | 1,351 | | | |

FIG. 16 – ACTUAL LOSSES IN THE TOTAL CREDIT PORTFOLIO UNDER THE IRB APPROACH

| € million | Losses during the period | | | | | |
|---|---|---|---|---|---|---|
| **Asset class** | **Jan. 1, 2013 to Dec. 31, 2013** | **Jan. 1, 2012 to Dec. 31, 2012** | **Jan. 1, 2011 to Dec. 31, 2011** | **Jan. 1, 2010 to Dec. 31, 2010** | **Jan. 1, 2009 to Dec. 31, 2009** | **Jan. 1, 2008 to Dec. 31, 2008** |
| Central governments | – | – | 5 | 2 | – | – |
| Institutions | 38 | 1 | 9 | – | 26 | 221 |
| Corporates | 195 | 207 | 29 | 117 | 247 | 81 |
| Equity instruments | – | – | – | – | – | – |
| Mortgage-backed retail IRBA receivables | 22 | 23 | 23 | 59 | 69 | 64 |
| Qualified revolving retail IRBA receivables | 3 | – | – | – | – | – |
| Other retail IRBA receivables | 92 | 73 | -2 | 99 | 87 | 58 |
| **Total** | **350** | **304** | **64** | **277** | **429** | **424** |

– Additions of €940 million in 2013 (2012: €920 million) to specific loan loss allowances (including specific loan loss allowances evaluated on a group basis) are offset against reversals of such losses (2013: €443 million, 2012: €407 million) and interest income amounting to €31 million for 2013 (2012: €40 million).

– The difference between directly recognized impairment losses of €102 million (2012: €94 million) and receipts from loans and advances previously impaired amounting to €75 million for the year under review (2012: €82 million) is also recognized.

– Finally, additions to provisions for loan commitments and liabilities under financial guarantee contracts (2013: €52 million, 2012: €28 million) are offset against reversals of these items (2013: €53 million, (2012: €66 million).

The sum total of these components constitutes the actual loss incurred by the aggregate portfolio, measured at €492 million for the year under review (2012: €447 million). An actual loss of €350 million for the reporting period (2012: €303 million) was calculated for the IRBA subportfolios shown in figure 16. The loss on the IRBA subportfolios was therefore €142 million (2012: €144 million) lower than the corresponding value for the aggregate portfolio.

### LOSS ESTIMATES AND ACTUAL LOSSES IN THE NON-DEFAULTING CREDIT PORTFOLIO UNDER THE IRB APPROACH

(Disclosure pursuant to section 335 (2) no. 6 SolvV)

Figure 17 compares the expected losses with the losses actually incurred during the period January 1 to December 31, 2009 to 2013 for the following IRBA asset classes: central governments, institutions, corporates (including large companies, SMEs, specialized financial services, and purchased receivables that are treated as corporate loans), long-term equity investments recognized under the PD/LGD approach, and retail business.

The estimate of the expected losses for 2013 relates to the non-defaulting risk-weighted assets in the traditional lending business. Consequently, it does not factor in the expected losses on securities in the banking book or in connection with derivative counterparty risks. The losses shown that have actually been incurred also relate to the exposures that had not yet defaulted at the beginning of the year under review. The definition of 'loss' corresponds to the definition used for figure 16.

FIG. 17 – LOSS ESTIMATES AND ACTUAL LOSSES IN THE NON-DEFAULTING CREDIT PORTFOLIO UNDER THE IRB APPROACH

| € million | Losses during the period Jan. 1, 2013 to Dec. 31, 2013 | | Losses during the period Jan. 1, 2012 to Dec. 31, 2012 | | Losses during the period Jan. 1, 2011 to Dec. 31, 2011 | | Losses during the period Jan. 1, 2010 to Dec. 31, 2010 | | Losses during the period Jan. 1, 2009 to Dec. 31, 2009 | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Asset class** | Expected | Actual | Expected | Actual | Expected | Actual | Expected | Actual | Expected | Actual |
| Central governments | 4 | – | 1 | – | 2 | – | 3 | 2 | 5 | – |
| Institutions | 22 | 42 | 85 | 1 | 13 | 9 | 11 | 1 | 40 | 10 |
| Corporates | 337 | 192 | 209 | 141 | 244 | 111 | 272 | 145 | 196 | 307 |
| Equity instruments | 7 | – | 6 | – | 6 | – | 5 | – | – | – |
| Mortgage-backed retail IRBA receivables | 73 | 21 | 66 | 23 | 68 | 22 | 71 | 34 | 86 | 41 |
| Qualified revolving retail IRBA receivables | – | – | – | – | – | – | – | – | – | – |
| Other retail IRBA receivables | 104 | 97 | 100 | 67 | 98 | 59 | 120 | 36 | 104 | 42 |
| **Total** | **547** | **352** | **467** | **232** | **431** | **201** | **482** | **218** | **431** | **400** |

FIG. 18 – COLLATERALIZED LENDING VOLUME UNDER THE STANDARDIZED APPROACH TO CREDIT RISK (EXCLUDING SECURITIZATIONS)

| € million | Financial collateral | | Life insurance | | Guarantees | | Total | |
|---|---|---|---|---|---|---|---|---|
| Asset class | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 |
| Central governments | 1,503 | 898 | – | – | – | – | 1,503 | 898 |
| Regional governments and local authorities | 191 | 132 | – | – | 7 | 13 | 199 | 145 |
| Other public-sector entities | 104 | 141 | – | – | 155 | 164 | 259 | 304 |
| Multilateral development banks | – | – | – | – | – | – | – | – |
| International organizations | – | – | – | – | – | – | – | – |
| Institutions | 1,633 | 1,910 | – | – | – | – | 1,633 | 1,910 |
| Covered bonds issued by institutions | – | – | – | – | – | – | – | – |
| Corporates | 1,119 | 888 | 11 | 7 | 1,863 | 2,021 | 2,994 | 2,916 |
| Retail business | 76 | 81 | – | – | 3 | 5 | 79 | 86 |
| Exposures collateralized by real estate | 44 | 24 | – | – | – | – | 44 | 24 |
| Investment fund units | – | – | – | – | – | – | – | – |
| Long-term equity investments | – | – | – | – | – | – | – | – |
| Other exposures | – | – | – | – | – | – | – | – |
| Past due exposures | 2 | 3 | 3 | 2 | 8 | 10 | 12 | 15 |
| **Total** | **4,672** | **4,077** | **14** | **9** | **2,036** | **2,213** | **6,723** | **6,298** |

The regulator intends this comparison to be the basis for measuring the efficiency of the process for allocating exposures or borrowers to rating categories as required by section 335 (2) no. 6 SolvV. In this respect, the table can be seen as a supplement to the description of the internal validation processes in section 4.2.2. ('Control mechanisms for the rating systems').

However, the comparison of expected and actual losses in the form described above should be viewed with reservations because very few of the figures are directly comparable with each other. In particular, the actual losses are losses recognized in the reporting period ('losses incurred'), while the parameters underlying the expected losses were determined on the basis of events of default during an observation period (through-the-cycle). Furthermore, the expected losses relate to a static portfolio of risk-weighted assets and the losses incurred are the result of a portfolio that is subject to change over the course of the year.

Figure 17 shows that the losses of €352 million actually incurred in 2013 (2012: €232 million) across all asset classes were considerably lower than the expected figure of €547 million (2012: €467 million).

## 4.6.6. Collateralized lending volume

NOTES ON COLLATERALIZED LENDING VOLUME

Figure 18 and figure 19 cover the volume of assets secured by collateral that is risk-weighted for regulatory purposes, broken down into the IRB approaches and the Standardized Approach to credit risk. The volume of business generated by the collateralized transactions is shown in figures 12 through 15 of this risk report.

The collateralization effect of the guarantees provided by counterparties under the Standardized Approach to credit risk is illustrated in figure 12, which shows a partial shift in the lending volume from higher to lower risk weightings between the table columns that present the total exposure before and after the credit risk had been mitigated under the Standardized Approach. Under the IRB approaches, most of the collateral shown in the table – especially mortgages – is included in the calculation of capital requirements as LGD.

FIG. 19 – COLLATERALIZED LENDING VOLUME UNDER THE IRB APPROACH (EXCLUDING SECURITIZATIONS)

| € million | Financial collateral | | Life insurance | | Other collateral | | Guarantees | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| Asset class | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 |
| Corporates | 455 | 74 | 3 | 2 | 29,802 | 28,608 | 2,460 | 2,686 | 32,717 | 31,368 |
| Institutions | 6,683 | 9,795 | – | – | 108 | 81 | 437 | 500 | 7,228 | 10,376 |
| Central governments | 170 | 94 | – | – | – | – | 118 | 196 | 288 | 290 |
| Retail business | – | – | – | – | 31,457 | 30,780 | 62 | 181 | 31,519 | 30,961 |
| of which: Mortgage-backed | – | – | – | – | 31,457 | 30,780 | 62 | 181 | 31,519 | 30,961 |
| Qualified revolving | – | – | – | – | – | – | – | – | – | – |
| Other | – | – | – | – | – | – | – | – | – | – |
| Long-term equity investments | – | – | – | – | – | – | – | – | – | – |
| of which: Simple risk-weighting approach | – | – | – | – | – | – | – | – | – | – |
| Internal modeling approach | – | – | – | – | – | – | – | – | – | – |
| PD/LGD approach | – | – | – | – | – | – | – | – | – | – |
| Other non credit-obligation assets | – | – | – | – | – | – | – | – | – | – |
| Total | 7,308 | 9,963 | 3 | 2 | 61,367 | 59,469 | 3,077 | 3,563 | 71,752 | 72,995 |

FIG. 20 – DERIVATIVE COUNTERPARTY RISK EXPOSURE BEFORE AND AFTER NETTING AGREEMENTS AND COLLATERAL

| € million | Positive replacement values before offsetting and collateral | | Netting arrangements | Eligible collateral | Positive replacement values after netting and collateral |
|---|---|---|---|---|---|
| Type of contract | Dec. 31, 2013 | Dec. 31, 2012 | | | |
| Interest-rate related contracts | 24,377 | 36,329 | | | |
| Currency-related contracts | 1,699 | 1,353 | | | |
| Equity/index-related contracts | 1,365 | 1,687 | | | |
| Credit derivatives | 394 | 635 | | | |
| Commodity-related contracts | 16 | 44 | | | |
| Other contracts | 33 | 48 | | | |
| Total as at Dec. 31, 2013 | 27,884 | | 21,134 | 3,236 | 3,514 |
| Total as at Dec. 31, 2012 | | 40,095 | 30,552 | 3,648 | 5,895 |

FIG. 21 – NOTIONAL AMOUNTS OF CREDIT DERIVATIVES BROKEN DOWN BY TYPE OF USE

| | Notional amount arising from use for own portfolio | | | |
|---|---|---|---|---|
| € million | Protection buyer | | Protection seller | |
| **Credit derivatives** | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 |
| Credit default swaps | 19,082 | 27,930 | 23,308 | 32,502 |
| Total return swaps | 2,709 | 2,953 | 234 | 380 |
| Credit-linked notes | 4,705 | 3,952 | 439 | 347 |
| Other | – | – | – | – |
| **Total** | **26,496** | 34,835 | **23,981** | 33,229 |

COLLATERALIZED LENDING VOLUME UNDER THE STANDARDIZED APPROACH TO CREDIT RISK (EXCLUDING SECURITIZATIONS)

(Disclosure pursuant to section 336 (2) SolvV)

Figure 18 shows the exposures broken down by asset class under the Standardized Approach to credit risk where such exposures are secured by financial collateral, life insurance, or guarantees. The figures for credit risk mitigation in each case are the regulatory risk-weighted values.

COLLATERALIZED LENDING VOLUME UNDER THE IRB APPROACHES (EXCLUDING SECURITIZATIONS)

(Disclosure pursuant to section 336 (2) SolvV)

Figure 19 shows the exposures, broken down by IRBA asset class, that are backed by financial collateral, life insurance policies, other IRBA collateral (such as physical collateral) or guarantees. The figures shown for credit risk mitigation in each case are the regulatory risk-weighted values. For certain IRBA assets held by BSH, DG HYP, and DVB, the mortgage-related or real-estate collateral recognized for credit risk mitigation purposes is included in the calculation of capital requirements as LGD. The table shows the collateralized exposure for these transactions.

### 4.6.7. Derivative counterparty risk exposure

(Disclosure pursuant to section 326 SolvV)

Figure 20 shows the derivative counterparty risk exposure in the banking book and trading book in the form of positive fair values before and after the offsetting of net derivatives exposures and collateral. The derivative counterparty risk is also broken down into the various types of contract.

The disclosures show the aggregated derivative counterparty risk exposure in the banking book and trading book, which has already been disclosed for each regulatory subportfolio in figures 12 through 15. The exposures that are processed directly via a risk-free central counterparty (clearing house) are not included in figure 20. This table therefore only shows over-the-counter (OTC) derivatives as well as listed derivatives that are traded via an intermediary, such as a broker. All derivatives exposures arising from securitizations are disclosed solely in figure 30.

The DZ BANK banking group always uses the regulatory mark-to-market method to calculate the counterparty risk to be disclosed under section 326 (2) no. 2 SolvV. As at December 31, 2013, **counterparty risk exposure** was calculated at €12,532 million (December 31, 2012: €14,982 million). This figure relates to the derivative counterparty risk exposure shown in figure 20 and serves as a basis for measurement under the Standardized Approach to credit risk or the IRB approaches.

The **notional amount of credit derivatives, risk-weighted for regulatory purposes, used to hedge derivative counterparty risk exposures**, and to be disclosed pursuant to section 326 (2) no. 3 SolvV, was €113 million as at December 31, 2013 (December 31, 2012: €243 million).

Figure 21 shows the notional amounts of credit derivatives bought and sold, broken down by type of derivative. As had been the case at the end of the previous year, no credit derivatives from the intermediary operations of DZ BANK banking group entities were held as at December 31, 2013.

# 5. LONG-TERM EQUITY INVESTMENTS IN THE BANKING BOOK

## 5.1. MANAGEMENT OF RISKS ATTACHING TO LONG-TERM EQUITY INVESTMENTS

(Disclosure pursuant to section 322 SolvV)

The objectives and principles underlying the management of risks attaching to long-term equity investments held in the banking book and the aims pursued through such investments are described in section 9 of the opportunity and risk report. The accounting policies applied to long-term equity investments held in the banking book are described below.

## 5.2. ACCOUNTING POLICIES APPLIED TO LONG-TERM EQUITY INVESTMENTS

(Disclosure pursuant to section 332 no. 1 SolvV)

IAS 39 applies to shareholdings that are neither fully consolidated nor recognized under the equity method. DZ BANK classifies these investments as available-for-sale financial instruments and recognizes them at their fair value in accordance with IAS 39.9. Any fluctuations in fair value arising from the fair value measurement subsequent to initial recognition are taken to other comprehensive income and recognized in the revaluation reserve. If an investment is permanently impaired as defined in IAS 39.58 et seq. ('Impairment'), an impairment loss is recognized in income. Reversals of impairment losses previously recognized in income are taken to other comprehensive income and recognized in the revaluation reserve. The fair value of investments is measured at the end of each month. The relevant closing share price at the reporting date is used to measure the fair value of publicly traded investments held in the banking book.

The enterprise value of investments that are not publicly traded is determined by discounting their future financial surpluses back to the measurement date. The figure used to determine the discount rate is the return on a risk-free capital market investment. A risk premium is added to this base interest rate to reflect the greater uncertainty about the level of future financial surpluses associated with an investment in shares of the company being measured compared with an investment in a risk-free interest-bearing security. The beta factor is individually determined using an appropriate benchmarking method.

The enterprise values of companies at which a transaction has recently taken place are validated on the basis of the transaction price. If, rather than pursuing any (direct) financial objectives, the company in question focuses on providing services or promoting the public good (for example in the case of guarantee banks), the net asset value of this company as a going concern should be calculated instead. Alternatively, the value of the pro-rata equity available can be used. Real-estate finance companies are subjected to a property-related measurement.

## 5.3. LONG-TERM EQUITY INVESTMENT EXPOSURES HELD IN THE BANKING BOOK

(Disclosure pursuant to section 332 (2) SolvV)

The equity risk of exposures disclosed in figure 22 distinguishes the carrying amounts under commercial law from the current market value of these exposures. The recognition of unrealized gains and losses on long-term equity investments in the DZ BANK banking group's capital is shown in figure 23.

The regulatory report on investments held in the banking book covers conventional investments as well as securities, derivatives on investment exposures, and investment funds. The DZ BANK banking group recognizes the investment funds held in its banking book using the transparency method and breaks them down into the primary asset classes of the individual investment fund components. These exposures are therefore included in the Standardized Approach to credit risk and IRBA tables rather than the equity risk tables. The equity exposures in the investment funds are classified with a risk weighting of 100 percent under the Standardized Approach to credit risk (see figure 12) and fall into the 'investments exposure' asset class under the IRB approach (see figure 13).

Figure 22 shows the long-term equity investments in the banking book that are risk-weighted (and consequently not consolidated, either in full or on a pro rata basis) or are subject to a capital deduction. These are broken down by groups of equity instruments and various carrying amounts. The classification of investments is based on the financial nature of the equity instrument concerned. The

FIG. 22 – MEASUREMENT OF EQUITY INSTRUMENTS

| € million | Carrying amount | | Fair value | | Market value | |
|---|---|---|---|---|---|---|
| **Category of equity instrument** | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 |
| **Investments in banks** | **333** | 387 | **389** | 427 | | |
| of which: Exchange-traded | 61 | 114 | 105 | 120 | 87 | 120 |
| Not exchange-traded but part of a diversified portfolio | 271 | 273 | 284 | 306 | | |
| Other | 1 | 1 | 1 | 1 | | |
| **Investments in finance companies** | **19** | 32 | **19** | 24 | | |
| of which: Exchange-traded | – | – | – | – | – | 1 |
| Not exchange-traded but part of a diversified portfolio | – | – | – | – | | |
| Other | 18 | 28 | 18 | 20 | | |
| **Investments in insurance companies** | **2,451** | 2,451 | **2,451** | 2,451 | | |
| of which: Exchange-traded | 1 | – | 1 | 1 | 1 | 1 |
| Not exchange-traded but part of a diversified portfolio | 2,444 | 2,444 | 2,444 | 2,444 | | |
| Other | 5 | 5 | 5 | 5 | | |
| **Investment funds held as investments in banking book** | **42** | 28 | **24** | 28 | | |
| of which: Exchange-traded | – | – | – | – | | – |
| Not exchange-traded but part of a diversified portfolio | – | – | – | – | | |
| Other | 42 | 28 | 24 | 28 | | |
| **Investments in corporates** | **629** | 495 | **632** | 517 | | |
| of which: Exchange-traded | 57 | 43 | 60 | 49 | 60 | 49 |
| Not exchange-traded but part of a diversified portfolio | 144 | 249 | 144 | 249 | | |
| Other | 428 | 204 | 428 | 219 | | |
| **Total** | **3,474** | 3,393 | **3,515** | 3,447 | | |

FIG. 23 – REALIZED AND UNREALIZED GAINS AND LOSSES ON EQUITY INSTRUMENTS IN ACCORDANCE WITH IFRS

| € million | Realized gains and losses on disposals | Unrealized gains and losses on equity instruments: Total amount | of which: Amounts recognized in Tier 1 capital | of which: Amounts recognized in Tier 2 capital |
|---|---|---|---|---|
| **Dec. 31, 2013** | **12** | **41** | **–** | **–** |
| Dec. 31, 2012 | -9 | 54 | – | – |

carrying amount is the carrying amount determined in accordance with IFRS. Traded equity investments are defined as equity instruments that are listed on a stock exchange. The market value is defined as the cash settlement price of the investment at the reporting date.

Figure 23 shows the realized and unrealized gains and losses arising from the long-term equity investments held in the banking book in accordance with IFRS. The table only includes equity investments that are risk-weighted (and consequently not consolidated, either in full or on a pro rata basis) or are subject to a capital deduction. As in 2012, unrealized gains and losses were disregarded for the purposes of determining regulatory capital.

The capital requirement related to equity instrument exposures is included in figure 6. Consequently, no separate disclosure is provided.

# 6. MARKET RISK

## 6.1. MANAGEMENT OF MARKET RISK

(Disclosure pursuant to section 322 and section 333 (1) SolvV)

The objectives and principles of market risk management, including the management of interest-rate exposure in the banking book, are disclosed in section 10 of the opportunity and risk report.

Specific information on the calculation of interest-rate exposure in the banking book pursuant to section 333 (1) SolvV, including the type of interest-rate exposure, key assumptions made, and frequency of risk measurement, is disclosed in section 10.4.5 of the opportunity and risk report.

## 6.2. REGULATORY TREATMENT OF MARKET RISK

### 6.2.1. Internal risk model

(Disclosure pursuant to section 330 (2) nos. 1a, 1c, and 2 SolvV)

To determine value-at-risk, DZ BANK uses an internal risk model approved by BaFin for the calculation of the regulatory capital requirement for general and specific market risk in accordance with SolvV. Based on this model, value-at-risk and stressed value-at-risk (crisis risk amount) are calculated daily using a historical simulation with a unilateral confidence level of 99.00 percent over a one-year observation period and a holding period of 10 trading days.

Section 330 (2) no. 1c SolvV requires institutions that use an internal risk model to describe the crisis scenarios they have used. This description can be found in section 10.4.2 of the opportunity and risk report.

### 6.2.2. Additional default and migration risk

(Disclosure pursuant to section 330 (2) no. 1b SolvV)

Since December 2011, DZ BANK has been using an internal risk model approved by the regulator to determine the capital related to the additional default and migration risk in the trading book. In this model, sudden changes in market prices arising from rating migration or the collapse of an issuer are specifically factored into the regulatory risk calculation. Potential losses from migrations and defaults are measured on the basis of a one-sided prediction interval with a confidence level of 99.90 percent and a prediction horizon of one year. Calculations assume a constant risk position up to the prediction horizon. The model meets the requirements of section 318a (2) sentence 1 SolvV for a meaningful differentiation of risk and for an accurate, consistent risk estimate.

### 6.2.3. Model validation and measurement undertaken independently of the trading function

(Disclosure pursuant to section 330 (2) nos. 1d and 3 SolvV)

The internal market risk model is subject to continuous operational review as part of standard processes. The review is carried out by market risk control using analyses of the value-at-risk, and evaluations of the backtesting and stress test results. In addition, the internal model is audited by internal audit at regular intervals. Refinements to the model are reported monthly to the entire Board of Managing Directors of DZ BANK.

At least once a year, an enhanced review of the model (adequacy review) is carried out, including a comprehensive analysis of time series, parameterization, stress test scenarios, and processes. This analysis includes technical elements, such as delivery times and the quality of the value-at-risk figure, and statistical figures, for example backtesting anomalies in the value-at-risk and quantile time series at different portfolio levels.

Independently of the trading function, exposures are measured daily using current market parameters. To this end, the market data is collected by the risk control department itself and the measurement methods and models are developed and validated independently of the trading units.

Market risk model validation consists of five key components: daily risk analysis, daily backtesting, monthly validation, risk self-assessment, and an annual adequacy review.

Validation governance stipulates that the results of the daily risk analysis and backtesting are used to compile a monthly validation report, with additional analysis and validation as required, and communicated to senior management. The results of the monthly validations are aggregated in an annual adequacy review, which also includes an analysis of the processes connected with the preparation of key risk indicators, statistical tests on the predictive quality of the risk model, portfolio-level analysis of anomalies (if they have not already been noted in the monthly reports), and validation of stress periods. The risk self-assessment is carried out once a year, or whenever required, with the aim of creating a standard, structured list of known failings in the market risk model, setting logical validation priorities, and defining and monitoring improvement measures.

## 6.3. MARKET RISK EXPOSURE

(Disclosure pursuant to section 330 (1), (1a), (3), and (4) and section 333 (2) SolvV)

The disclosures on the capital requirement for market risk determined under the standardized method in accordance with section 330 (1) and (1a) SolvV are shown in figure 7.

The value-at-risk for portfolios in the trading book, for which the capital requirement is determined using the internal modeling approach in accordance with section 313 SolvV, and the risk amount for potential crises (referred to as stressed value-at-risk) are disclosed in figure 24.

Figure 25 shows the extent of the additional default and migration risk measured in relation to the total trading book and in relation to the relevant subportfolios as specified in sections 318a to 318d SolvV. As was the case in 2012, the calculation is based on an average turnover period of 12 months. This disclosure is made pursuant to section 330 (4) SolvV.

The disclosures on backtesting as required by section 330 (3) no. 2 SolvV can be found in figure 26. The information provided also covers portfolios in the trading book for which the capital requirement is determined using the internal modeling approach in accordance with section 313 SolvV.

VaR remained fairly low. Fluctuations were mainly caused by movements in euro interest rates and changes in exposure.

Backtesting on June 21, 2013, a trading day, revealed an excess over the forecast value. This was a statistical outlier resulting from significant market movements that were in the same direction and consequently also created unexpected correlations. Sharp rises were observed in euro and US dollar interest rates as well as

FIG. 24 – VALUE-AT-RISK IN THE TRADING BOOK USING THE INTERNAL MODELING APPROACH UNDER NORMAL AND # STRESS CONDITIONS

| Value-at-risk scenarios | Value-at-risk at the end of the reporting period | | Value-at-risk during the reporting period: High | | Low | | Average | |
|---|---|---|---|---|---|---|---|---|
| € million | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 |
| Value-at-risk under normal conditions | 8 | 7 | 10 | 21 | 4 | 7 | 7 | 11 |
| Value-at-risk under stress conditions | 126 | 61 | 135 | 100 | 45 | 36 | 84 | 65 |

FIG. 25 – ADDITIONAL DEFAULT AND MIGRATION RISK IN THE TRADING BOOK UNDER THE INTERNAL MODELING APPROACH

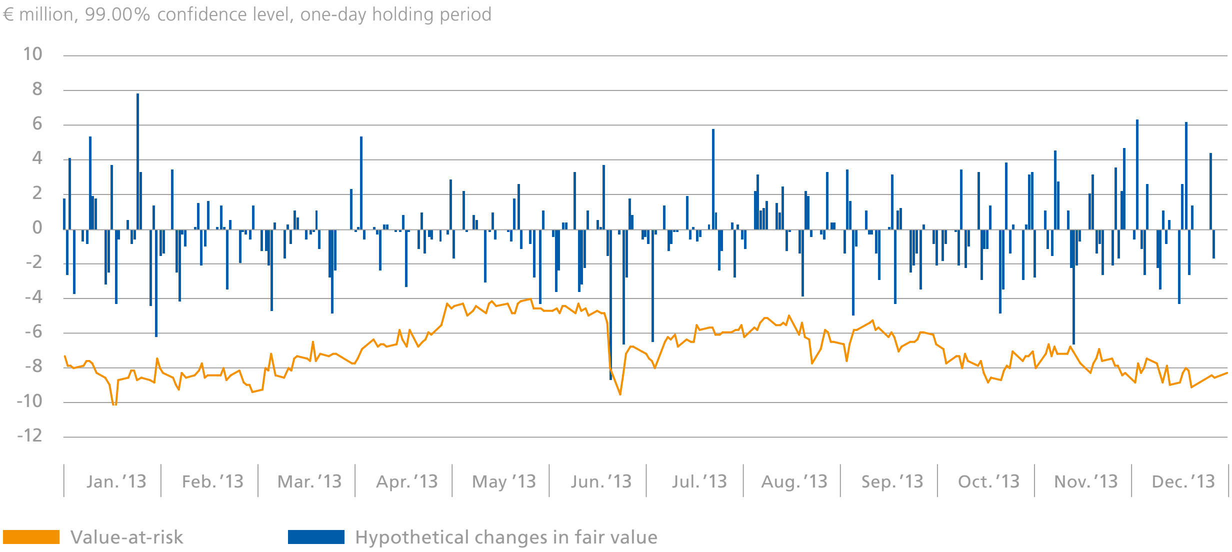
| Trading book portfolios under the internal modeling approach | Additional default and migration risk at the end of the reporting period | | Additional default and migration risk during the reporting period | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | High | | Low | | Average | |
| € million | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 |
| Capital markets trading | 128 | 136 | | | | | | |
| Other | 7 | 13 | | | | | | |
| **Total** | **135** | **149** | **166** | **265** | **107** | **137** | **130** | **189** |

in credit spreads in the banking and public-authorities segments, which were frequently outside the 99 percent confidence level compared with the historical distribution of the preceding 250 trading days. Bonds issued in eurozone periphery countries were particularly affected.

The opportunity and risk report's disclosures on value-at-risk and hypothetical changes in fair value comparable with the disclosures in figure 26 (see figure 45 in section 10.6 of the opportunity and risk report) relate to DZ BANK's trading portfolios and therefore reflect the way in which the portfolios are delineated for internal management purposes. Differences in the scope of application have resulted in discrepancies between the values disclosed in the two risk reports.

Section 333 (2) SolvV requires disclosure of the interest-rate exposure in the banking book. DZ BANK calculates this exposure as a value-at-risk figure at banking group level as part of its internal management of market risk. The DZ BANK banking group's general interest-rate risk in the banking book as determined using the method specified by senior management is disclosed in the

FIG. 26 – VALUE-AT-RISK UNDER THE INTERNAL MODELING APPROACH AND HYPOTHETICAL CHANGES IN FAIR VALUE IN THE TRADING BOOK



opportunity and risk report (see section 10.6, figure 44 under the header 'Non-trading portfolios'). This risk value was reported to the Board of Managing Directors.

# 7. OPERATIONAL RISK

(Disclosure pursuant to section 322 and section 331 (1) SolvV)

The objectives and principles of operational risk management are presented in section 14 of the opportunity and risk report. For the purposes of determining regulatory capital requirements, the potential loss arising from operational risk is estimated using the Standardized Approach specified by SolvV.

# 8. SECURITIZATIONS

## 8.1. MANAGEMENT OF SECURITIZATIONS

The management of credit risk associated with securitizations is described in section 8.4.9 of the opportunity and risk report. This description includes the following disclosures:

– Objectives and scope of securitization activities (disclosure pursuant to section 334 (1) nos. 1, 4, 5, and 9 SolvV)
– Causes of risk (disclosure pursuant to section 334 (1) nos. 2 and 3 SolvV)
– Organization, responsibility, and risk reporting (disclosure pursuant to section 334 (1) no. 6 SolvV)
– Risk monitoring and stress tests (disclosure pursuant to section 334 (1) no. 6 SolvV)
– Risk mitigation (disclosure pursuant to section 334 (1) no. 7 SolvV)

In addition to credit risk, the securitization activities of the DZ BANK banking group also give rise to market risk, liquidity risk, and operational risk. These risks form an integral part of the group's standard risk management system. Disclosures related to these risks have been included in the relevant sections of the opportunity and risk report, as follows:

– Market price risk management: section 10.4.6. (disclosure pursuant to section 334 (1) no. 3 SolvV)
– Liquidity risk management: section 11.4.1. (disclosure pursuant to section 334 (1) nos. 2 and 3 SolvV)
– Management of operational risk: section 14.4 (disclosure pursuant to section 334 (1) nos. 2, 3, and 7 SolvV)

## 8.2. REGULATORY TREATMENT OF SECURITIZATIONS

### 8.2.1. Procedure for determining risk-weighted exposures

(Disclosure pursuant to section 334 (1) no. 8 SolvV)

Securitization exposures retained in the banking book by entities in the DZ BANK banking group in their capacity as **originators** of synthetic securitizations are backed by capital under the Standardized Approach to credit risk pursuant to sections 238 to 242 SolvV. In addition, exposures relating to residential mortgage-backed securities (RMBSs) that have been retained by originators are also reported under the IRB approach if most of the underlying exposures are assigned to IRB asset classes. The IRB procedures used have been approved by BaFin.

When acting as **sponsor**, the DZ BANK banking group uses the internal classification procedure specified in section 259 SolvV that has been both tested and approved by BaFin to calculate the risk-weighted exposure of securitizations in ABCP programs for which there is no external credit rating. To a lesser extent, the Standardized Approach to credit risk as specified in sections 238 to 244 SolvV and the IRB approach specified in section 257 SolvV are also used to determine the capital requirement for exposures forming part of the group's activities as a sponsor.

Most of the **investor-related exposures in the banking book** are subject to the Standardized Approach to credit risk in accordance with sections 238 to 244 SolvV, in particular the look-through approach as specified in section 243 (2) SolvV within the context of the Standardized Approach to credit risk. To a lesser extent, the IRB approach in accordance with section 257 SolvV, the Supervisory Formula Method in accordance with section 258 SolvV, or the Internal Assessment Approach in accordance with section 259 SolvV are also used.

The capital requirements for **investor-related exposures** assigned to the **trading book** are determined using the internal model that has been approved by BaFin for calculating capital requirements. These exposures are factored into the capital requirements for market risk and are therefore not disclosed as credit risk exposures as defined in SolvV.

Since December 31, 2011, it has been a requirement to use the regulatory Standardized Approach to assess the particular price risk of securitizations held in the trading book by the group in its capacity as an investor. The Standardized Approach is based on the securitization risk weightings in the banking book. These exposures are rated for regulatory purposes using the Standardized Approach to credit risk, the IRB approach, the Supervisory Formula Method or the Internal Assessment Approach with the corresponding rating categories and risk weightings. Securitization exposures with an external rating below the specified minimum thresholds are not weighted but deducted from capital. The minimum thresholds are BB- for Standard & Poor's, Ba3 for Moody's, and BB- for Fitch.

Under the regulatory Standardized Approach, the total of long and short positions is backed by capital. Given the stringent nature of these requirements, banks have been granted an exemption up to December 31, 2013, during which time they only have to provide capital backing for the highest amount (long or short position).

A modified Standardized Approach is available for the correlation trading portfolio in addition to the Standardized Approach. For regulatory purposes, only securitizations and nth-to-default credit derivatives must be allocated to the correlation trading portfolio. Under the modified Standardized Approach, the capital requirement for the correlation trading portfolio is always calculated on the basis of the higher of the eligible amounts for long positions or short positions.

### 8.2.2. External ratings

(Disclosure pursuant to section 334 (1) no. 11 SolvV)

When transacting securitizations, the DZ BANK banking group uses the classifications prescribed by the rating agencies Standard & Poor's, Moody's, and Fitch for rating the following regulatory asset classes:

– Receivables from home loans
– Receivables from loans on wholly or partially commercial real estate
– Lease receivables originated or purchased
– Receivables from vehicle finance (excluding leases).

External credit ratings awarded by these recognized rating agencies are transferred to the securitization exposure of the DZ BANK banking group in accordance with the requirements of section 242 et seq. SolvV (under the Standardized Approach to credit risk) and section 255 et seq. SolvV (under the IRB approach). Competing external ratings are included in the calculation of risk-weighted exposure in accordance with sections 44 and 45 SolvV.

### 8.2.3. Internal ratings

(Disclosure pursuant to section 334 (1) no. 12 SolvV)

The Internal Assessment Approach in accordance with section 259 SolvV, which has been tested and approved by the German regulator, is used to determine ratings for liquidity facilities provided for ABCP programs if such facilities have not been rated by external agencies. This arrangement relates solely to the banking book because the entities in the DZ BANK banking group do not have any such exposures in the trading book.

When used to assess risk in accordance with regulatory requirements, the Internal Assessment Approach closely follows the models used by external rating agencies. The procedures used in the Internal Assessment Approach are continuously monitored and adjusted in line with the latest developments to ensure that they are always up to date. Depending on the assets securitized in an ABCP transaction, one of a number of submodels within the Internal Assessment Approach may be used to ensure that the measurement is appropriate to the risk. Figure 15 in section 8.4.1 of the opportunity and risk report shows a reconciliation of external and internal ratings.

Typically, lease receivables and trade receivables are securitized. The stress factors used to measure the relevant cushions against potential loss and the resulting rating categories are consistent with section 259 SolvV and, as a minimum, are as conservative as those used by external rating agencies. The stress factors used for determining internal ratings are the same factors that are used in a similar way by the rating agencies in their procedures. In addition, the Internal Assessment Approach is used for portfolios of individually assessed loans and advances. Likewise, the resulting credit ratings in this case are no less conservative than would be expected from the use of credit portfolio models by external rating agencies. Besides being used for determining capital requirements, the Internal Assessment Approach is also used for the purposes of internal risk management and pricing in the lending business.

The Internal Assessment Approach is comprehensively validated each year. The employees responsible for this task receive extensive training and are familiar with current developments relating to the area of securitization. Suitable organizational structures are in place to ensure that front office, back office, and model validation are segregated. Credit procedures and rating models are also subject to regular review by both internal and external auditors.

## 8.3. ACCOUNTING POLICIES APPLIED TO SECURITIZATIONS

### 8.3.1. Recognition methods

(Disclosure pursuant to section 334 (1) nos. 10a, b, d, and f SolvV)

The accounting treatment of securitizations does not distinguish between the regulatory categories of banking book and trading book. As required by IAS 39, the DZ BANK banking group's **investor-related exposures** to securities arising from securitizations are either recognized in income as held-for-trading securities, recognized as available-for-sale financial assets at fair value via the revaluation reserve, or recognized as loans and receivables at amortized cost.

Utilized **liquidity facilities** are measured at amortized cost as loans and advances to customers. Undrawn liquidity facilities and loan guarantees are not recognized on the balance sheet; if this gives rise to any imminent risks, provisions are recognized in the amount of the estimated loss in accordance with IAS 37 if they are likely to be utilized and their amount can be reliably estimated. Instruments such as swaps that are used to hedge interest-rate or currency risks are classified as derivatives in accordance with IAS 39 in the category 'Financial instruments held-for-trading' and measured at fair value. Outstanding external funding provided for the consolidated ABCP programs, in the form of asset-backed commercial paper for example, is recognized in other liabilities at amortized cost. Intragroup funding is consolidated in accordance with IAS 27.

During the course of the financial crisis, the DZ BANK Group ceased all its securitization activities except for those in a few, clearly defined areas of business. Areas where such activity has continued include the ABCP programs, although investment in ABSs has been halted. The bulk of the portfolio comprises residual balances of investor-related exposures dating back to the period prior to the financial crisis. The following details describe the management of credit risk in the present securitization business.

The objective of the entities in the DZ BANK Group in their role as **originators** of long-term funded securitizations is to transfer risk, thereby releasing economic and regulatory capital.

As a **sponsor**, DZ BANK also uses special-purpose entities, which are funded by issuing money market-linked ABCP. The ABCP programs are made available for DZ BANK customers who then securitize their own assets via these companies. In these programs, the customers sell their assets to a separate special-purpose entity, the consideration normally including an adjustment for risk. The purchase of the assets is funded by issuing money market-linked ABCP. The redemption of the ABCP is covered by the entire asset pool in the program. The contractual structure of the transactions ensures that the assets do not form part of the asset seller's net assets if the asset seller should become insolvent.

The **CORAL** ABCP program has been set up to provide securitization of assets from European entities. This program is funded by liquidity lines and by the issuance of ABCP. There are plans to expand the ABCP-based funding still further. As at December 31, 2012, there were still two transactions in the CORAL program in which VR-LEASING AG acted as the asset seller. These transactions were unwound in 2013.

DZ BANK is also the sponsor of the **AUTOBAHN** ABCP program, which offers securitization for assets from North American customers and is funded by ABCP issues.

As at December 31, 2013, DZ BANK had fully consolidated the special-purpose entities integrated into these ABCP programs (provided they met the requirements of IAS 27 in conjunction with SIC-12) together with their assets and liabilities. The ABCP programs' material assets, liabilities, income, and expense and the resultant opportunities and risks were consolidated by DZ BANK.

Securitized loans relating to **synthetic securitizations** remain on the DZ BANK banking group's books because they do not meet the disposal criteria specified in IAS 39 as no legal rights have been transferred.

By contrast, genuine asset sales – which are known as **true-sale securitizations** – are derecognized from the balance sheet to the extent that the opportunities and risks arising from the asset portfolio have been transferred to the buyer. There are currently no true-sale securitizations that have been originated by an entity in the DZ BANK banking group.

#### 8.3.2. Measurement methods

(Disclosure pursuant to section 328 (1) nos. 10c and 10e SolvV)

Transparency in the market environment for asset-backed securities (ABSs) continued to improve throughout 2013. In addition to using parameters that are relevant to measurement, such as current credit spreads, recovery assumptions and the current weighted average term to maturity, it was possible to validate the robustness of the measurement method selected by regularly comparing quotes from third-party banks.

Synthetic CDOs structured by DZ BANK are measured with a standard Gaussian copula model using externally available market data. This ensures that the calculation of fair value for both securitizations in general and synthetic CDOs in particular is based on appropriate measurement models that use available input data (for example, spread curves) in accordance with Level 2 of the fair value hierarchy. In November 2012, the measurement of cash CDOs, whose assets largely consist of loans, was also switched to a copula model. By doing so, the measurement as well as the risk mapping of these products has been significantly improved by means of a look-through approach to the underlying risks and by modeling transaction-specific waterfall rules.

### 8.4. SECURITIZATION EXPOSURE AND CAPITAL REQUIREMENTS

#### 8.4.1. Total amount of securitized assets

(Disclosure pursuant to section 334 (2) no. 1 and section 334 (4) no. 2 SolvV)

Figure 27 shows the total amount of originated securitizations whose underlying transactions are held on the books of the DZ BANK banking group. The securitizations shown here are all synthetic securitizations in the banking book and reported on the balance sheet. There were no true-sale securitizations in the banking book, neither were there any securitizations of assets associated with market risk exposures in the trading book.

Figure 27 also shows the securitizations in the banking book that are recognized on the balance sheet as a result of the DZ BANK banking group's activities as a sponsor. There were no sponsor exposures for off-balance-sheet assets.

FIG. 27 – TOTAL AMOUNT OF SECURITIZATIONS WITH DZ BANK BANKING GROUP AS ORIGINATOR AND SPONSOR

| € million | Securitizations in banking book | | | |
|---|---|---|---|---|
| | Originator | | Sponsor | |
| Asset class | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 |
| Exposure reported on the balance sheet | | | | |
| Receivables from home loans | 64 | 182 | 41 | 43 |
| Receivables from other retail loans | 6 | – | 106 | 172 |
| Receivables from loans on wholly or partially commercial real estate | – | 9 | 27 | 36 |
| Receivables from corporate loans | – | – | 320 | 591 |
| Lease receivables originated or purchased | – | 83 | 237 | 290 |
| Receivables from vehicle finance (excluding leases) | – | – | 34 | 20 |
| Receivables from CDOs and ABSs | – | – | – | 42 |
| Re-securitizations | – | – | – | – |
| Other exposure reported on the balance sheet | – | – | 1,498 | 1,394 |
| **Total** | **70** | 274 | **2,263** | 2,589 |
| Exposure not reported on the balance sheet | | | | |
| Liquidity facilities | – | – | – | – |
| Derivatives (e.g. for hedging purposes) | – | – | – | – |
| Exposure specific to synthetic transactions | – | – | – | – |
| Other exposure not reported on the balance sheet | – | – | – | – |
| Total exposure not reported on the balance sheet | – | – | – | – |
| **Sum total** | **70** | 274 | **2,263** | 2,589 |

### 8.4.2. Impaired securitizations, securitizations in arrears, and losses realized during the reporting period

(Disclosure pursuant to section 334 (4) no. 1 SolvV)

Referring to the receivables and assets in the banking book presented in figure 27, figure 28 shows the portions of the group's own asset securitizations that are past due or at risk of default. These have been differentiated according to the type of securitization. Figure 28 also shows the losses realized as a result of these exposures during the year under review. The definition of 'loss' in this case is the same as the definition used for figure 16.

### 8.4.3. Securitizations during the reporting period

(Disclosure pursuant to section 334 (2) no. 6 SolvV)

No assets were effectively securitized during 2013.

FIG. 28 – IMPAIRED SECURITIZATIONS, SECURITIZATIONS IN ARREARS, AND LOSSES REALIZED DURING THE REPORTING PERIOD

| € million | Past due or non-performing assets | | Losses during the reporting period | | | | |
|---|---|---|---|---|---|---|---|
| **Asset class** | **Dec. 31, 2013** | Dec. 31, 2012 | **2013** | 2012 | 2011 | 2010 | 2009 |
| Receivables from home loans | 8 | 14 | – | 2 | 1 | 1 | – |
| Receivables from other retail loans | 4 | – | – | – | – | – | – |
| Receivables from loans on wholly or partially commercial real estate | – | 9 | – | 2 | – | 1 | 7 |
| Receivables from corporate loans | – | – | – | – | – | – | – |
| Lease receivables originated or purchased | – | – | – | – | – | 3 | – |
| Receivables from vehicle finance (excluding leases) | – | – | – | – | – | – | – |
| Receivables from CDOs and ABSs | – | – | – | – | – | – | – |
| Re-securitizations | – | – | – | – | – | – | – |
| Other exposure reported on the balance sheet | – | – | – | – | – | – | – |
| **Total** | **12** | **23** | **–** | **4** | **1** | **5** | **7** |

## 8.4.4. Retained, purchased or off-balance-sheet securitization exposures

(Disclosure pursuant to section 334 (2) no. 2 SolvV)

Figure 29 shows the securitization exposures retained, purchased, or held off balance sheet by the entities in the DZ BANK banking group in their capacity as originator, sponsor or investor, broken down by the type of securitization. Securitization exposure is recognized at its risk-weighted carrying amount. The underlying receivables are classified according to the categories used for internal management purposes.

FIG. 29 – RETAINED OR PURCHASED SECURITIZATION EXPOSURES

| € million | Banking book | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Securitization exposure** | Standardized Approach to credit risk | | IRB approach | | **Trading book exposure** | | **Total** | |
| Exposure reported on the balance sheet | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 |
| Receivables from home loans | 2,672 | 4,061 | 1,079 | 1,260 | 303 | 472 | 4,054 | 5,792 |
| Receivables from other retail loans | 10 | 55 | 798 | – | 3 | 203 | 811 | 258 |
| Receivables from loans on wholly or partially commercial real estate | 6 | 39 | 250 | 1,382 | 2 | 6 | 258 | 1,427 |
| Receivables from corporate loans | 86 | – | 4 | 404 | 76 | 6 | 166 | 410 |
| Lease receivables originated or purchased | – | 21 | – | 8 | 120 | 40 | 120 | 69 |
| Receivables from vehicle finance (excluding leases) | 31 | 5 | – | – | 24 | 134 | 54 | 139 |
| Receivables from CDOs and ABSs | 37 | 55 | – | 108 | – | – | 37 | 163 |
| Re-securitizations | – | – | 353 | 663 | 29 | 43 | 382 | 706 |
| Other exposure reported on the balance sheet | 242 | – | 706 | – | – | – | 948 | – |
| Receivables from special purpose entities and other credit enhancements recognized on the balance sheet | – | – | 5 | 581 | – | – | 8 | 581 |
| Total exposure reported on the balance sheet | 3,086 | 4,236 | 3,195 | 4,406 | 557 | 904 | 6,839 | 9,546 |
| Exposure not reported on the balance sheet | | | | | | | | |
| Liquidity facilities | – | 357 | 1,860 | 2,187 | – | – | 1,860 | 2,544 |
| Derivatives (e.g. for hedging purposes) | 83 | 60 | 44 | 97 | – | – | 128 | 157 |
| Exposure specific to synthetic transactions | – | – | – | – | – | 282 | – | 282 |
| Re-securitizations | – | – | 74 | – | – | – | 74 | – |
| Other exposure not reported on the balance sheet | 118 | – | – | – | 122 | – | 240 | – |
| Total exposure not reported on the balance sheet | 201 | 417 | 1,979 | 2,284 | 122 | 282 | 2,302 | 2,983 |
| **Sum total** | **3,287** | **4,653** | **5,174** | **6,690** | **679** | **1,186** | **9,141** | **12,529** |

FIG. 30 – EXPOSURES AND CAPITAL REQUIREMENTS FOR RETAINED OR PURCHASED SECURITIZATIONS

| € million | Banking book | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Securitizations | | | | Re-securitizations | | | | Total | | | |
| Regulatory approach<br>Risk-weighting band | Exposure | | Capital requirement | | Exposure | | Capital requirement | | Exposure | | Capital requirement | |
| | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 |
| **Standardized Approach** | 2,628 | 3,396 | 152 | 199 | – | – | – | – | 2,628 | 3,396 | 152 | 199 |
| 20% | 1,163 | 1,693 | 19 | 27 | – | – | – | – | 1,163 | 1,693 | 19 | 27 |
| 40% | – | – | – | – | – | – | – | – | – | – | – | – |
| 50% | 617 | 826 | 25 | 33 | – | – | – | – | 617 | 826 | 25 | 33 |
| 100% | 645 | 534 | 52 | 43 | – | – | – | – | 645 | 534 | 52 | 43 |
| 225% | – | – | – | – | – | – | – | – | – | – | – | – |
| 350% | 203 | 344 | 57 | 96 | – | – | – | – | 203 | 344 | 57 | 96 |
| 650% | – | – | – | – | – | – | – | – | – | – | – | – |
| 1,250% | – | – | – | – | – | – | – | – | – | – | – | – |
| **Standardized Approach, look-through** | 362 | 360 | 22 | 22 | – | – | – | – | 362 | 360 | 22 | 22 |
| **Rating-based approach** | 1,997 | 2,889 | 112 | 142 | 293 | 527 | 11 | 27 | 2,290 | 3,416 | 123 | 170 |
| ≤10% | 611 | 712 | 4 | 5 | – | – | – | – | 611 | 712 | 4 | 5 |
| > 10% ≤ 20% | 550 | 998 | 8 | 13 | 270 | 468 | 5 | 8 | 819 | 1,466 | 12 | 21 |
| > 20% ≤ 50% | 353 | 633 | 11 | 19 | 5 | 9 | – | – | 357 | 643 | 11 | 19 |
| > 50% ≤ 100% | 299 | 316 | 19 | 22 | – | 4 | – | – | 299 | 321 | 19 | 22 |
| > 100% ≤ 250% | 19 | 65 | 4 | 14 | 3 | 8 | – | 1 | 21 | 73 | 4 | 15 |
| > 250% ≤ 650% | 166 | 164 | 66 | 71 | 14 | 28 | 5 | 11 | 179 | 192 | 71 | 82 |
| > 650% ≤ 1,250% | – | – | – | – | 2 | 9 | 1 | 7 | 2 | 9 | 1 | 7 |
| **Supervisory Formula Method** | 42 | 44 | 12 | 13 | 74 | – | – | – | 116 | 44 | 12 | 13 |
| **Internal Assessment Approach** | 2,527 | 2,724 | 93 | 101 | – | 1 | 2 | – | 2,527 | 2,725 | 94 | 101 |
| **Capital deduction** | 480 | 1,266 | 472 | 1,266 | 60 | 136 | 60 | 136 | 540 | 1,402 | 532 | 1,402 |
| **Total** | **8,036** | **10,678** | **863** | **1,743** | **427** | **664** | **72** | **163** | **8,463** | **11,343** | **935** | **1,906** |

## 8.4.5. Exposures and capital requirements for retained or purchased securitizations broken down by the approach used to calculate the capital requirement

(Disclosure pursuant to section 334 (3) no. 1 SolvV)

Figure 30 shows the securitization exposures and the respective capital requirements for the banking book and the trading book. This includes a breakdown by the approach used to calculate the capital requirement and by the risk-weighting band for regulatory purposes.

## 8.4.6. Securitization exposures and capital deductions

(Disclosure pursuant to section 334 (2) no. 5 SolvV)

Figure 31 shows the securitization exposures to be deducted or to be included with a securitization risk weighting of 1,250 percent in determining the modified available equity in accordance with section 10 (1d) KWG. The figures shown are the exposure carrying amounts. Market risk exposures in the trading book are factored into the table as net interest-rate exposures.

| Trading book | | | | | | | | | | | | Sum total | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Securitizations | | | | Re-securitizations | | | | Total | | | | | | | |
| Exposure | | Capital requirement | | Exposure | | Capital requirement | | Exposure | | Capital requirement | | Exposure | | Capital requirement | |
| Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 | Dec. 31, 2013 | Dec. 31, 2012 |
| 522 | 835 | 9 | 15 | 28 | – | 1 | – | 550 | 835 | 10 | 15 | 3,177 | 4,231 | 162 | 214 |
| 507 | 805 | 8 | 13 | – | – | – | – | 507 | 805 | 8 | 13 | 1,670 | 2,498 | 27 | 40 |
| – | – | – | – | 28 | – | 1 | – | 28 | – | 1 | – | 28 | – | 1 | – |
| 9 | 23 | – | 1 | – | – | – | – | 9 | 23 | – | 1 | 626 | 849 | 25 | 34 |
| 6 | 5 | – | – | – | – | – | – | 6 | 5 | – | – | 651 | 539 | 52 | 43 |
| – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| – | 1 | – | – | – | – | – | – | – | 1 | – | – | 203 | 345 | 57 | 96 |
| – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| – | – | – | – | – | – | – | – | – | – | – | – | 362 | 360 | 22 | 22 |
| 5 | 11 | – | – | 1 | 43 | – | 1 | 6 | 54 | – | 1 | 2,296 | 3,470 | 123 | 171 |
| 4 | 8 | – | – | – | – | – | – | 4 | 8 | – | – | 616 | 720 | 4 | 5 |
| – | – | – | – | – | – | – | – | 1 | 1 | – | – | 820 | 1,467 | 12 | 21 |
| – | 4 | – | – | – | 43 | – | 1 | – | 46 | – | 1 | 357 | 689 | 11 | 20 |
| 1 | – | – | – | – | – | – | – | 1 | – | – | – | 300 | 321 | 19 | 22 |
| – | – | – | – | – | – | – | – | – | – | – | – | 21 | 73 | 4 | 15 |
| – | – | – | – | – | – | – | – | – | – | – | – | 179 | 192 | 71 | 82 |
| – | – | – | – | – | – | – | – | – | – | – | – | 2 | 9 | 1 | 7 |
| 122 | 282 | 5 | 15 | – | – | – | – | 122 | 282 | 5 | 15 | 237 | 326 | 18 | 28 |
| – | – | – | – | – | – | – | – | – | – | – | – | 2,527 | 2,725 | 94 | 101 |
| 1 | 15 | 1 | 15 | – | – | – | – | 1 | 15 | 1 | 15 | 540 | 1,417 | 533 | 1,417 |
| 649 | 1,143 | 15 | 44 | 29 | 43 | 1 | 1 | 678 | 1,186 | 16 | 45 | 9,141 | 12,528 | 951 | 1,951 |

## 8.4.7. Re-securitization exposures and collateralization amounts

(Disclosure pursuant to section 334 (3) no. 2 SolvV)

Figure 32 discloses the retained or purchased re-securitization exposures before and after offsetting of any collateralization or insurance, together with the extent of collateral provided by guarantors, broken down by guarantor credit rating. Again, the figures shown are the exposure carrying amounts. Market risk exposures in the trading book are factored into the table as net interest-rate exposures.

## 8.4.8. Total amount of planned securitizations

(Disclosure pursuant to section 334 (2) no. 3 SolvV)

As at December 31, 2013, there were no plans for any securitizations.

FIG. 31 – CAPITAL DEDUCTIONS FOR SECURITIZATIONS BY ASSET CLASS

€ million

| Asset class | Banking book | | Trading book | | Total | |
|---|---|---|---|---|---|---|
| **Exposure reported on the balance sheet** | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 |
| Receivables from home loans | 354 | 975 | 1 | 5 | 355 | 980 |
| Receivables from other retail loans | 114 | 3 | – | 10 | 114 | 13 |
| Receivables from loans on wholly or partially commercial real estate | – | 214 | – | – | – | 214 |
| Receivables from corporate loans | – | 2 | – | – | – | 2 |
| Lease receivables originated or purchased | – | 10 | – | – | – | 10 |
| Receivables from vehicle finance (excluding leases) | – | – | – | – | – | – |
| Receivables from CDOs and ABSs | 8 | 57 | – | – | 8 | 57 |
| Re-securitizations | 60 | 136 | – | – | 60 | 136 |
| Other exposure reported on the balance sheet | – | – | – | – | – | – |
| Receivables from special-purpose entities and other credit enhancements recognized on the balance sheet | – | – | – | – | – | – |
| Total exposure reported on the balance sheet | 536 | 1,397 | 1 | 15 | 537 | 1,412 |
| **Exposure not reported on the balance sheet** | | | | | | |
| Liquidity facilities | 3 | 4 | – | – | 3 | 4 |
| Derivatives (e.g. for hedging purposes) | – | – | – | – | – | – |
| Exposure specific to synthetic transactions | – | – | – | – | – | – |
| Re-securitizations | – | – | – | – | – | – |
| Other exposure not reported on the balance sheet | – | – | – | – | – | – |
| Total exposure not reported on the balance sheet | 3 | 4 | – | – | 3 | 4 |
| **Sum total** | **539** | **1,401** | **1** | **15** | **540** | **1,416** |

FIG. 32 – RE-SECURITIZATION EXPOSURES AND COLLATERALIZATION AMOUNTS

| | Banking book | | Trading book | | Total | |
|---|---|---|---|---|---|---|
| € million | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 | **Dec. 31, 2013** | Dec. 31, 2012 |
| Re-securitizations excluding collateralization | 428 | 666 | 29 | 43 | 457 | 709 |
| Collateralized by guarantee | – | – | – | – | – | – |
| of which: Guarantor rated AAA to A | – | – | – | – | – | – |
| Guarantor rated below A | – | – | – | – | – | – |
| Other collateral | 1 | 2 | – | – | 1 | 2 |
| Re-securitizations including collateralization | 427 | 664 | 29 | 43 | 456 | 707 |

# LIST OF FIGURES

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