Member of the cooperative financial services network

2008

REGULATORY RISK REPORT OF THE DZ BANK BANKING GROUP

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CONTENTS

1 BASIS OF REGULATORY RISK REPORTING

1.1 LEGAL BASIS AND IMPLEMENTATION IN THE DZ BANK BANKING GROUP

By making recommendations on capital adequacy (Basel II), 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. The Solvency Ordinance (SolvV) has transposed into national law the minimum European capital adequacy standards 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. The Solvency Ordinance defines in more detail the capital adequacy requirements for institutions prescribed in section 10 of the German Banking Act (KWG).

Since 2007 the DZ BANK banking group has mainly been using the foundation internal ratings-based approach (IRB approach or IRBA) to calculate the regulatory capital adequacy requirements for credit risk and the Standardized Approach to calculate these requirements for operational risk. Since 2008, the regulatory credit risk measurement methods used by DVB have largely been based on the advanced IRB approach.

The DZ BANK banking group's regulatory risk reporting is performed in accordance with **section 26a KWG in conjunction with sections 319 to 337 SolvV.** Furthermore, the disclosure recommendations made in the Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience on April 7, 2008 (**FSF disclosure recommendations**) with respect to securitizations and leveraged finance are implemented so as to take account of the specific situation of the DZ BANK banking group. This disclosure is performed pursuant to section 319 (2) SolvV by DZ BANK as the parent company of the regulatory banking group and is conducted in aggregated form 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 DZ BANK Group's general financial disclosure and internal risk reporting. By adopting this disclosure policy, the Board of Managing Directors put in place the necessary risk-related disclosure procedures and 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.

The **figures disclosed** in this report relate to the reporting date of December 31, 2008 and are presented in the table formats – the so-called "use cases" – recommended by Deutsche Bundesbank's specialist sub-committee on disclosure requirements. The tables' numbering and headings follow these recommendations and are based on the third pillar of Basel II. This ensures that the regulatory risk disclosure procedures used by the DZ BANK banking group meet the relevant international, European and German standards.

The DZ BANK banking group's **qualitative regulatory risk reporting** is in large part integrated into the risk report contained in the group management report. The Bank utilizes the option available under section 320 (1) SolvV and refers readers looking for these qualitative disclosures to the risk report in the group management report.

1.2 CONCEPT OF REGULATORY RISK REPORTING

Regulatory capital adequacy relates to the risk types of credit risk (including equity risk), market price risk and operational risk. In addition to these risk types, strategic risk and actuarial risk are also backed by economic risk capital as part of the internal economic capital adequacy process under pillar 2 of Basel II. Liquidity risk is not backed by any capital.

The regulatory risk report covers the subsidiaries that are consolidated as part of the DZ BANK banking group for regulatory purposes under the KWG. Further risks that arise at subsidiaries consolidated for non-regulatory purposes are disclosed in the risk report prepared under German commercial law (HGB). This especially relates to the risks to which R+V Versicherung AG, Wiesbaden, is exposed.

In addition, the recognition of certain risk types differs depending on whether economic risk capital requirements or regulatory requirements are being determined. In particular, actuarial risk and strategic risk are included in the calculation of economic risk capital requirements, although they are not backed by capital for regulatory purposes. Furthermore, the market price risk in the banking book is included in the calculation of economic risk capital requirements, whereas it is not included for regulatory purposes.

The credit risk exposures presented in table groups 5, 6, 7, 8 and 9 of this risk report and the allowances for losses on loans and advances are based on measurement methods and carrying amounts of the German Commercial Code (HGB). In the risk report prepared under German commercial law, on the other hand, the presentation of the total volume of loans extended is based on the figures from the Bank's internal management accounts.

When the regulatory capital requirements and the related disclosure requirements are being determined, risk-bearing exposures that are allocated to the trading book are treated differently from those that are allocated to the banking book in terms of the quantification of their risks. For example, the on-balance sheet and off-balance sheet exposures of the banking book and the counterparty risks arising from derivatives exposures of the banking book and trading book are treated as credit risks. The on-balance sheet exposures of the trading book are treated as market price risk exposures and are therefore backed with regulatory capital, whereas for internal management purposes they are treated as issuer risks and allocated to credit risks. The different treatment of the trading book and banking book also applies to the disclosure of securitization exposures as part of the overall credit portfolio.

Figure 1 compares the information disclosed in both the regulatory and commercial-law risk reports for the various risk types.

CONTENT OF RISK REPORTS BROKEN DOWN BY RISK CATEGORY

Risk types		Regulatory risk report	Commercial-law risk report
Credit risk (including default risk from trading transactions and securitizations)		Total lending volume, regulatory capital requirement, collateral, allowances for losses on loans and advances, loss data	Total lending volume, economic risk capital requirement, collateral for non-performing loans, allowances for losses on loans and advances
Equity risk		Volume of securities in the banking book and conventional investments, regulatory capital requirement	Volume of conventional investments
Market price risk	Trading book (including securitizations)	Regulatory capital requirement for each market price risk type	Economic risk capital requirement, loss limit, value at risk for total book
	Banking book	Value at risk for interest-rate risk	
Actuarial risk		Not included	Economic risk capital requirement, loss limit
Operational risk		Regulatory capital requirement	Economic risk capital requirement, loss limit
Strategic risk		Not included	Economic risk capital requirement, loss limit

Figure 1

2 SCOPE OF APPLICATION

As part of the DZ BANK financial conglomerate, the DZ BANK banking group is subject to the requirements of section 10b KWG. In this respect it meets the capital requirements with respect to **financial conglomerates' solvency** and the establishment of overarching risk management systems.

All companies belonging to the financial conglomerate are integrated into the central risk management system for reasons of materiality pursuant to section 26a (2) number 1 KWG in conjunction with section 320 (1) SolvV. Materiality is determined on the basis of a concept that also applies to risk reporting under the German Commercial Code. The disclosures in this risk report relate to the material companies pursuant to section 26a KWG (2) number 1. Consequently, the regulatory risk report is consistent with the risk report contained in the group management report, which covers the same companies. The materiality concept does not apply to Table 2b to 2e on the breakdown of equity, Table 3b to 3e on capital requirements, Table 3f on capital ratios or Table 10b on capital requirements for market price risk under the standardized method. Where relevant, all companies consolidated for regulatory purposes are included in these tables to ensure that these key regulatory figures are identical to the figures reported under Pillar 1.

In **Table 1b** "Consolidation matrix/Differences between companies consolidated for regulatory purposes and those consolidated for the purposes of commercial law" (disclosure pursuant to section 323 (1) number 2 SolvV), the financial conglomerate's companies that are material for internal risk management purposes are

TABLE 1B: CONSOLIDATION MATRIX/DIFFERENCES BETWEEN COMPANIES 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 treatment	Risk-weighted 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 International S.A., Luxembourg-Strassen (DZI)	•				•	
	DZ BANK Ireland plc, Dublin (DZ BANK Ireland)	•				•	
	DZ BANK Polska S.A., Warsaw (DZ BANK Polska)	•					
	DZ PRIVATBANK (Schweiz) AG, Zurich (DZ PRIVATBANK Schweiz)	•				•	
	TeamBank AG Nürnberg, Nuremberg (TeamBank)	•				•	
Investment companies	Union Asset Management Holding AG, Frankfurt am Main (Union Asset Management Holding)	•				•	
Financial services institutions	VR-LEASING AG, Eschborn (VR-LEASING)	•				•	
Insurance companies	R+V Versicherung AG, Wiesbaden (R+V)				•	•	

Figure 2

classified according to the nature of their business, the nature of their treatment for regulatory purposes and the nature of their consolidation for the purposes of commercial law. These companies are classified on the basis of the definitions contained in section 1 KWG.

The material companies are consolidated for both commercial-law and regulatory purposes. Although R+V is fully consolidated for commercial law purposes, it is not directly subject to banking regulation. Instead, it is factored into the procedure used to determine the DZ BANK banking group's capital adequacy and disclosure requirements pursuant to the German Banking Act and the Solvency Ordinance through the risk-weighted carrying amount of DZ BANK's investment in R+V. Furthermore, R+V is included in the regulatory surveillance of the DZ BANK financial conglomerate at consolidated level within the legal framework applicable to financial conglomerates.

Including the companies listed in Table 1b, a total of 18 banks, six financial services institutions, eight investment companies, 837 finance companies (750 of which were project companies belonging to VR-IMMOBILIEN-LEASING GmbH, Eschborn) and twelve providers of related services were fully **consolidated for regulatory purposes** pursuant to section 10a KWG on December 31, 2008. In addition, five banks and three finance companies 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 the European Union. On the reporting date there were no **restrictions on the transfer of funds or capital** as defined in section 323 (1) number 3 SolvV within the DZ BANK banking group by third-party individuals, private or public-sector companies, supranational organizations, or sovereign states.

DZ BANK has not made use of the **waiver** available under section 2a KWG, which states that – provided that certain conditions are met – the regulatory supervision of individual German-based institutions within a banking group may be replaced by supervision of the entire banking group.

There were no subsidiaries in the DZ BANK banking group that had a **capital deficiency** on December 31, 2008. Consequently, no disclosure pursuant to section 323 (2) SolvV (Table 1e of the use cases) has been made.

Figure 3 shows how the DZ BANK banking group's companies are integrated into the Group's quantitative disclosure procedures. These companies are included in such disclosures in a way that reflects any intra-group effects of consolidation. Subgroups are reported on a partially consolidated basis.

In 2007, DVB, DZ BANK Ireland and Union Asset Management Holding were still using the transitional provisions specified in section 339 (10) SolvV and calculated their capital adequacy for credit risk based on the provisions of Capital Adequacy Principle I. Since January 1, 2008 these subsidiaries have been factored into calculations of the DZ BANK banking group's capital requirements in accordance with the Solvency Ordinance. DVB uses the advanced IRB approach while DZ BANK Ireland uses the foundation IRB approach. Union Asset Management Holding uses the Standardized Approach to calculate its capital requirements for credit risk.

At present the DZ BANK Group does not meet the following quantitative disclosure requirements:

– **Table 8d** "Alpha factor under section 223 (6) SolvV" (disclosure pursuant to section 326 (2) number 5 SolvV), since no internal models approved by the regulatory authorities are currently being used to calculate regulatory capital requirements for counterparty risk exposures to derivatives.

– **Table 9h and 9i** "Securitizations under the early amortization approach" (disclosure pursuant to section 334 (2) number 5 SolvV), since no such securitizations are currently being transacted.

INCLUSION OF COMPANIES IN QUANTITATIVE REGULATORY DISCLOSURES

Companies	Table 2b to 2e Structure of equity	Table 3b to 3e Capital requirements	Table 3f Capital ratios	Table group 4 Lending volume and allowances for losses on loans and advances	Table group 5 Standardized Approach exposures	Table group 6 IRBA exposures	Table group 7 Credit risk mitigation	Table group 8 Derivative counter-party risk exposures	Table group 9 Securitizations	Table group 13 Equity instruments	Table 14b Interest-rate exposure
DZ BANK	•	•	•	•	•	•	•	•	•	•	•
BSH (subgroup)	•	•	•	•	•	•	•	•	•	•	•
DG HYP	•	•	•	•	•	•	•	•	•	•	•
DVB (subgroup)	•	•	•	•	•	•	•	•		•	•
DZI (subgroup)	•	•	•	•	•	•	•	•		•	•
DZ BANK Ireland	•	•	•	•	•	•	•	•	•	•	•
DZ BANK Polska (subgroup)	•	•	•	•							•
DZ PRIVATBANK Schweiz	•	•	•	•							•
TeamBank	•	•	•	•	•	•	•	•		•	•
Union Asset Management Holding (subgroup)	•	•	•								
VR-LEASING (subgroup)	•	•	•	•	•		•	•	•	•	
Other companies of relevance for regulatory purposes	•	•	•	•							
R+V (subgroup)				•							

Figure 3

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 the section entitled "Management of economic capital adequacy" in the chapter entitled "Risk capital management" in the risk report contained in the group management report.

3.2 CAPITAL

(Disclosure pursuant to section 324 SolvV)

Table 2b to 2e presents the aggregated capital defined in section 10a KWG. The disclosures relate to all the companies in the DZ BANK banking group that have been consolidated for regulatory purposes as at December 31, 2008. The capital of the DZ BANK banking group is calculated under the aggregation and deduction method pursuant to section 10a (6) KWG.

Tier 1 capital comprised preferred securities worth a total of €1,679 million as well as other components on the reporting date. The DZ BANK banking group issued a total of twelve public offerings of hybrid capital instruments in the form of preferred securities through subsidiaries specifically established for this purpose. These securities, with a total par value of €1,710 million, were issued from 2003 to 2008; they each yield interest at prevailing market rates. The preferred securities meet the conditions stipulated by the Basel Committee on Banking Supervision to qualify as Tier 1 capital.

Tier 1 capital also included the capital reserves and the other eligible reserves totaling €400 million. Special provisions for general banking risks pursuant to section 340g HGB amounted to €2,093 million. Further Tier 1 capital instruments were equity components of €2,139 million arising from consolidation and dormant capital contributions with a nominal value of €208 million. The dormant capital contributions met the requirements of section 10 (4) KWG. Deductions under section 10 (2a) sentence 2 KWG, which also formed part of Tier 1 capital, essentially comprised intangible assets and the pro-rata deductible carrying amounts of investments held by non-consolidated companies.

TABLE 2B TO 2E: STRUCTURE OF EQUITY

€ million

Equity instruments	Amount
Paid-up capital	4,964
Capital reserves and other eligible reserves	400
Special provisions for general banking risks pursuant to section 340g HGB	2,093
Other Tier 1 capital instruments	2,347
Deductions from Tier 1 capital pursuant to section 10 (2a) number 2 KWG	-221
Deductions from Tier 1 capital pursuant to section 10 (6) and (6a) KWG	-797
Total Tier 1 capital pursuant to section 10 (2a) KWG	8,786
Total Tier 2 capital before capital deductions pursuant to section 10 (2b) KWG	3,468
Deductions from Tier 2 capital pursuant to section 10 (6) and (6a) KWG	-797
Total Tier 2 capital pursuant to section 10 (2b) KWG and eligible Tier 3 capital pursuant to section 10 (2c) KWG	2,671
Total modified equity available pursuant to section 10 (1d) KWG and eligible Tier 3 capital pursuant to section 10 (2c) KWG	**11,457**

Figure 4

Tier 2 capital as at December 31, 2008 included outstanding profit-sharing rights of €901 million and subordinated liabilities of €2,246 million, which met the requirements of section 10 (5) KWG and section 5a KWG. Interest is only paid to investors in the profit-participation certificates when a distributable profit is available. In one case, such payment is dependent on the amount of the dividend. The various tranches in the form of registered and bearer profit-participation certificates have original maturity periods of between five and 27 years. Investors cannot redeem the profit-participation certificates prior to their maturity.

Subordinated liabilities were issued as further components of Tier 2 capital in the form of registered and bearer bonds and promissory notes carrying fixed and variable interest rates, which range between 3.19 percent and 8.69 percent. These securities have original maturity periods of between five and 30 years. It is not anticipated that these tranches will be converted into equity or any other form of liabilities.

DZ BANK compares loan loss allowances at both single-entity and 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. The Bank classifies the write-down surplus computed at both single-entity and group level as part of Tier 2 capital pursuant to section 10 (2b) number 9 KWG. This classification is capped at 0.6 percent of risk-weighted IRBA exposures.

Tier 2 capital included a write-down surplus pursuant to section 10 (2b) number 9 KWG on the reporting date. Consequently, the allowances for losses on loans and advances recognized for the IRBA exposures of the asset classes of corporates, institutions, central governments and retail business exceeded the expected losses for these exposures. Tier 2 capital also contained the contingency reserves pursuant to section 340f HGB net of goodwill and, as a deduction, 50 percent of the pro-rata deductible carrying amounts of investments held by non-consolidated companies.

The write-down deficits and the **expected losses** for IRBA exposures pursuant to section 10 (6a) number 2 KWG, half of which are deducted from Tier 1 capital and half from Tier 2 capital, amounted to €4 million on December 31, 2008.

The DZ BANK banking group did not hold any Tier 3 capital at the end of 2008.

The regulatory capital held by the DZ BANK banking group on December 31, 2008 amounted to almost €11.5 billion. The DZ BANK Group's **aggregate risk cover** used for economic capital management purposes and disclosed in the risk report contained in the group management report for 2008 amounted to approximately €12.2 billion at the time the relevant resolution was adopted.

The objective of both capital concepts is to ensure capital adequacy; in other words, the relevant capital components act as a cushion in case any unexpected losses arise. The regulatory capital of the DZ BANK banking group is derived both from the provisions of the German Banking Act and the requirements of the Basel Committee on Banking Supervision. It is based on the carrying amounts recognized under the German Commercial Code and essentially comprises the capital 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 the equity reported on the balance sheet as well as hidden reserves. The various components of R+V's equity are also included in the economic capital used to provide aggregate risk cover.

3.3 CAPITAL REQUIREMENTS

(Disclosure pursuant to section 325 (2) SolvV)

Table 3b to 3e shows the capital amounts in relation to the risk types of relevance for regulatory purposes (credit risk, market price risk and operational risk). These figures relate to all the companies consolidated for regulatory purposes in the DZ BANK banking group.

TABLE 3B TO 3E: CAPITAL REQUIREMENTS (PART 1)

€ million	Capital adequacy requirements
1 Credit risk	
1.1 Standardized Approach to credit risk	
Central governments	9
Regional governments and local authorities	22
Other public-sector entities	2
Multilateral development banks	0
International organizations	0
Institutions	114
Covered bonds issued by banks	7
Corporates	1,530
Retail business	212
Exposures collateralized by real estate	30
Investment fund units	45
Other exposures	94
Past due exposures	78
Total under the Standardized Approach to credit risk	2,143
1.2 IRB approaches	
Central governments	70
Institutions	1,235
Corporates	1,833
Retail business	961
of which: mortgage-backed	348
qualified revolving	0
other	613
Other credit-independent assets	119
Total under IRB approaches	4,218
1.3 Securitizations	
Securitizations under the Standardized Approach to credit risk	258
Securitizations under IRB approaches	181
Total securitizations	439
1.4 Investments	
Investments under IRB approaches	59
of which: internal modeling approach	0
PD/LGD approach	1
simple risk-weighting approach	58
of which: exchange-traded investments	22
investments that are not exchange-traded but form part of a diversified portfolio	0
other investments	36
Investments under the Standardized Approach to credit risk	280
Total investments	339
Total credit risk	**7,139**

Figure 5

TABLE 3B TO 3E: CAPITAL REQUIREMENTS (PART 2)

€ million	Capital adequacy requirements
2 Market price risk	
Standardized Approach	101
of which: interest-rate risk	27
equity price risk	1
currency risk	73
risk from commodities positions	0
other risks	0
Internal modeling approach	1,682
Total market price risk	1,783
3 Operational risk	
Operational risk under the Standardized Approach	520
Total for capital requirements	**9,442**

Figure 6

TABLE 3F: CAPITAL RATIOS IN THE DZ BANK BANKING GROUP

Companies	Total capital ratio	Tier 1 capital ratio
DZ BANK banking group	**9.7 %**	**7.4 %**
DZ BANK	15.4 %	8.8 %
BSH	33.8 %	25.4 %
DG HYP	10.2 %	7.4 %
DVB (banking group)	17.2 %	12.9 %
DZI	15.8 %	14.2 %
DZ BANK Ireland	8.6 %	7.6 %
DZ PRIVATBANK Schweiz	16.2 %	16.2 %
DZ BANK Polska (banking group)	11.8 %	11.8 %
TeamBank	12.2 %	8.4 %

Figure 7

The difference between the regulatory capital requirements (€9,442 million) and the economic risk capital requirement (€9,128 million) measured on December 31, 2008 and disclosed in the risk report contained in the group management report is largely attributable to the fact that 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 entity-specific risk measurement than the measurement methods prescribed for regulatory purposes. The two measurement methods also differ in the weightings they give to collateral and available credit lines.

In addition, actuarial risks and strategic risks are only backed with capital for the purposes of economic risk capital management. The higher figures for economic risk capital with respect to credit risk, market price risk and operational risk are also due to the inclusion of R+V, which is not included for regulatory purposes. The fact that the economic risk capital required for credit risks is much lower than the regulatory capital requirements is largely attributable to more conservative assumptions used in the regulatory approaches and to the classification of equity risk as a separate risk type.

3.4 CAPITAL RATIOS

(Disclosure pursuant to section 325 (2) SolvV)

The regulatory capital ratios are shown in **Table 3f** and are calculated based on the home-country legal norms applicable to capital requirements. 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 group companies do not include intra-group effects of consolidation.

The capital ratios for the DZ BANK banking group as a whole and for the individual group companies as at December 31, 2008 were all well above the minimum ratios of 8.0 percent (total capital ratio) and 4.0 percent (Tier 1 capital ratio) prescribed for regulatory purposes.

4 CREDIT RISK

4.1 OBJECTIVES AND PRINCIPLES OF CREDIT RISK MANAGEMENT

The objectives and principles of credit risk management (disclosure pursuant to section 322 SolvV) are presented in the chapter entitled “Credit risk” in the risk report contained in the group management report.

4.2 CREDIT RATINGS

4.2.1 Credit rating systems for IRBA asset classes

OVERVIEW OF INTERNAL RATING SYSTEMS

(Disclosure pursuant to section 335 (1) number 1 SolvV)

In 2007 the DZ BANK banking group received official approval from the German Financial Supervisory Authority (BaFin) to calculate its capital requirements using the foundation IRB approach and the IRB approach for retail business. Figures 8 to 10 show the internal rating systems covered by this approval that the DZ BANK banking group uses to calculate its regulatory capital requirements based on the IRB approaches.

In addition, DVB uses separate rating systems for shipping (vessels), land transport and aviation (aircraft) to calculate its capital requirements for the asset class of corporates (in the narrow sense of the term). DZI uses a proprietary rating system for guaranteed foreign-currency loans that covers the asset classes of corporates (in the narrow sense of the term) and other retail business. TeamBank uses its consumer-finance rating system to determine the credit ratings for loan exposures in its other retail business.

DESCRIPTION OF INTERNAL RATING SYSTEMS

(Disclosure pursuant to section 335 (1) number 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

CREDIT RATING SYSTEMS DEVELOPED AND APPLIED BY DZ BANK AND USED BY OTHER GROUP COMPANIES

	Companies					Asset classes									
								Retail business				Corporates			
Rating systems	DZ BANK	BSH	DG HYP	DZ BANK IRELAND	DZI	Central governments	Institutions	Mortgage-backed	Qualified revolving	Other	Investment exposures	Corporates (in the narrow sense)	Small and medium-sized enterprises	Specialized financial services	Purchased receivables
VR rating for banks	•	•	•	•	•		•								
VR rating for countries	•	•	•	•	•	•									
VR rating for major customers	•				•							•			
VR rating for larger SMEs	•		•									•			

Figure 8

PROPRIETARY CREDIT RATING SYSTEMS DEVELOPED BY BSH

	Asset classes									
			Retail business				Corporates			
Rating systems	Central governments	Institutions	Mortgage-backed	Qualified revolving	Other	Investment exposures	Corporates (in the narrow sense)	Small and medium-sized enterprises	Specialized financial services	Purchased receivables
Mortgage-backed retail business										
Application scoring			•							
Behavior scoring			•							
LGD scoring			•							
EAD			•							
Non-mortgage-backed retail business										
Application scoring					•					
Behavior scoring					•					
LGD scoring					•					
EAD					•					

Figure 9

as the sum total of all methods, procedures, control and monitoring 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 that meet the regulatory requirements for the foundation IRB approach are developed as the standard for the entire cooperative financial services network by DZ BANK as part of VR Control, a BVR project that also covers WGZ Bank AG Westdeutsche Genossenschafts-Zentralbank (based in Düsseldorf), the network's regional banking associations, computing centers and local cooperative banks. This uniform approach for the entire cooperative network reaps substantial efficiency gains for both the cooperative central institutions and for 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 companies 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 and having to be revised. 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

PROPRIETARY CREDIT RATING SYSTEMS DEVELOPED BY DG HYP

	Asset classes									
			Retail business				Corporates			
Rating systems	Central governments	Institutions	Mortgage-backed	Qualified revolving	Other	Investment exposures	Corporates (in the narrow sense)	Small and medium-sized enterprises	Specialized financial services	Purchased receivables
VR rating systems										
VR rating for property developers									•	
VR rating for investment funds									•	
VR rating for investors							•		•	
VR rating for project developers									•	
VR rating for housing associations							•		•	
Rating systems for retail business with employed private customers										
Application scoring for retail business / Behavior scoring for retail business			•							
LGD estimate for IRB retail business			•							
Rating systems for retail business with self-employed private customers										
Application scoring for retail business/Behavior scoring for retail business			•							
LGD estimate for IRB retail business			•							
Specialized real-estate lending									•	

Figure 10

cooperative financial services network. The VR rating system is broken down 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 officially approved by BaFin for the calculation of regulatory capital requirements under the foundation IRB approach. Each of these rating systems is broken down into a total of 25 rating categories: 20 of these categories are for non-defaulting business partners and five are for defaulting business partners.

The **VR rating for larger SMEs** is applied to the regulatory asset class of corporates (in the narrow sense of the term). This rating system covers the central bank-related SME corporate customers that generate revenue of up to €1 billion. It is applied, among other things, to loans jointly extended by companies 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 larger SMEs is the large number of historical data records of defaulting and non-defaulting customers that were collected throughout the cooperative financial services network. Given this ideal data scenario, a good/bad analysis was selected as the development method.

The **VR rating for large 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 large 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 of all legal forms, irrespective of their 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 group companies' business. The country rating segment is concerned exclusively with credit ratings for central governments. The country segment is not concerned 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 reason for this breakdown is 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 assessment approach** is used to assess credit lines and credit enhancements in connection with ABCP transactions. The expert-based modeling method was used to design this rating system.

In addition, rating systems are used for small and medium-sized enterprises (SMEs), regional and local governments, project finance and acquisition finance for internal management purposes. The rating systems used for project finance and acquisition finance have already been successfully tested for regulatory Basel II purposes. Approval has not yet been received for the acquisition finance rating system.

APPROVED TRANSITIONAL RULES FOR IRB APPROACHES (PARTIAL USE)

(Disclosure pursuant to section 335 number 1 SolvV)

Capital requirements within the DZ BANK banking group continue to be calculated using both the IRB approaches and the Standardized Approach to credit risk. The foundation IRB approach is used by DZ BANK, BSH, DG HYP, DZI, DZ BANK Ireland and TeamBank. Although 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) number 6 SolvV from the calculation of the DZ BANK banking group's cover ratio. The other companies use the Standardized Approach to credit risk. The individual IRBA institutions use appropriate 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.

For each IRBA institution there is an implementation plan that ensures compliance with the thresholds prescribed by the Solvency Ordinance. 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) number 2b SolvV)

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

- The **credit lines** within which business partners are allowed to engage in credit or trading transactions at risk of default with group companies are primarily determined by the internal rating.

- The profit-contribution-based **pre-analysis of loans** carried out by client advisors 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 back-office decision-makers to approve loan applications is 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 the loan, internal ratings determine the extent to which **credit ratings are 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, last but not least, internal ratings play a key role in internal **credit risk reporting.**

CONTROL MECHANISMS FOR THE RATING SYSTEMS

(Disclosure pursuant to section 335 (1) number 2d SolvV)

The internal rating systems used are extensively validated once a year on the basis of internal data. The validation consists partly of a quantitative analysis aimed at measuring the rating systems' selectivity and stability and at calibrating them. The validation also includes a 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, a pool validation is carried out on the standard rating systems used throughout the cooperative financial services network.

When a 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 the internal bank validation. If validations reveal any room for improvement, such improvements are made when the rating systems are developed and 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 credit risk report.

At DZ BANK, a dedicated organizational unit in the 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 for rating systems and also for developing and implementing new rating models and 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 companies in the DZ BANK banking group.

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

(Disclosure pursuant to section 335 (1) number 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 do business that bears a default risk with borrowers who do not have an internal rating. All rating systems are assigned – without any overlaps – to a 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. Every borrower or guarantor must be reclassified at least once a year. All relevant input factors and the results of the ratings conducted are saved in the data processing systems so that there is a complete rating history for every customer and every transaction.

4.2.2 Rating procedure for asset classes under the Standardized Approach to credit risk

APPOINTED RATING AGENCIES

(Disclosure pursuant to section 328 (1) numbers 1 and 2 SolvV)

The rating agencies Standard & Poor's Ratings Services, Moody's Investors Service, and Fitch Ratings Ltd. 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 exposures in accordance with sections 44 and 45 SolvV.

TRANSFER OF CREDIT RATINGS FROM BOND ISSUES TO ASSETS

(Disclosure pursuant to section 328 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.

4.3 COLLATERAL MANAGEMENT

(Disclosure pursuant to section 326 (1) number 4, section 335 (1) number 2c and section 336 number 1 SolvV)

The credit risk mitigation techniques used in the DZ BANK banking group are presented in the section entitled "Credit risk mitigation" in the "Credit risk" chapter of the risk report contained in the group management report. This section provides information on the following:

– Hedging objectives and hedging strategies
– Main types of collateral
– Main types of guarantors and counterparties in credit derivatives
– Procedure for obtaining collateral for conventional lending business and for counterparty risk exposures to derivatives
– Concentrations of risk arising from credit risk mitigation techniques.

4.4 MANAGING COUNTERPARTY RISK EXPOSURES TO DERIVATIVES IN THE BANKING BOOK AND TRADING BOOK

The following information provided pursuant to section 326 (1) SolvV on the management of counterparty risk exposures to derivatives in the banking book and trading book of the DZ BANK banking group can be found in the "Credit risk" chapter of the risk report contained in the group management report:

– A description of the internal capital allocation procedure used to cover counterparty risk arising from counterparty risk exposures to derivatives (section entitled "Economic credit portfolio management")
– A description of the procedures used to obtain collateral (section entitled "Credit risk mitigation")
– A description of how correlations of market price risk and counterparty risk are managed (section entitled "Credit risk mitigation")
– A description of the consequences of the amount of collateral that the Bank would have to provide in the event of a credit rating downgrade (section entitled "Credit risk mitigation").

4.5 MANAGEMENT OF SECURITIZATIONS

4.5.1 Objectives and scope of securitization

(Disclosure pursuant to section 334 (1) SolvV and FSF recommendations)

The DZ BANK banking group uses securitization as a credit portfolio management tool and to optimize its risk/return profile. By originating securitizations that are funded over the long term, DZ BANK aims to free up economic and regulatory capital by transferring risk. As an originator and sponsor, the Bank also uses special-purpose entities (known as conduits) that are refinanced by the issuance of money market-linked asset-backed commercial paper (ABCP). These conduits are predominantly made available to DZ BANK customers who then securitize their own assets by using these companies.

Figure 11 shows the main exposures held by the companies in the DZ BANK banking group as **originator** and **sponsor.** The information disclosed here covers all securitizations in the DZ BANK banking group, including those that are not included as securitizations in the Group's capital requirements.

In addition to these activities, DZ BANK **arranges** and **distributes** securitizations issued by the DZ BANK banking group and the cooperative financial services network. The local cooperative banks are involved in the form of multi-seller transactions for the DZ BANK banking group. DZ BANK also arranges the VR Circle transactions that are used to share credit risk between the local cooperative banks involved.

4.5.2 Managing credit risk arising from securitizations

(Disclosure pursuant to FSF recommendations)

Exposures to asset-backed securities (ABSs), which for the DZ BANK banking group constitute investor-related exposures within the meaning of the Solvency Ordinance, are **managed** by the relevant group companies and are subject to the groupwide risk management standards. These standards require that ABS investments should be individually analyzed and limited. The structure of transactions is analyzed, a comparison is made between the transactions and the relevant ABS market, and the external credit ratings awarded by the rating agencies are validated as part of a well-established process. Furthermore, all major ABS asset classes are subjected to an annual portfolio analysis process that assesses the macroeconomic and asset-class-specific risks involved. Portfolio risk exposures are reported once a month at group level to the group's credit management function and to DZ BANK's Board of Managing Directors; this reporting process covers the Bank's aggregate risk exposure. This enables the DZ BANK banking group to manage the risks it incurs from structured products by applying a groupwide global limit.

By conducting economic **stress tests** that meet the minimum requirements for risk management, the DZ BANK banking group analyzes all its securitization exposures to see what would happen if ABS spreads widened to their maximum potential. The spread movements assumed for this purpose are based on multi-year historical time series that include the changes in spreads during 2007 and 2008.

In addition to these stress tests, the Bank stress-tests various scenarios to calculate the arrears of its primary borrowers and the amounts that might be recovered if assets were sold. It then uses the results of these stress tests to forecast the impact on the value of its ABS exposures.

4.5.3 Accounting policies applicable to securitizations

(Disclosure pursuant to section 334 (1) number 5 SolvV)

As required by IAS 39, the DZ BANK banking group's **investor-related exposures** to securities arising from securitizations are either measured and recognized in income as held-for-trading securities, recognized at fair value as available-for-sale financial assets in the revaluation reserve or recognized at amortized cost as loans and receivables. Utilized liquidity facilities are measured at amortized cost as loans and advances to customers. Outstanding liquidity facilities and loan guarantees are not recognized on the face of 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 held-for-trading derivatives in accordance with IAS 39 and measured at fair value. Outstanding external funding provided for the consolidated conduits, for example in the form of asset-backed commercial paper, is recognized at amortized cost as other liabilities. Intra-group funding is consolidated in accordance with IAS 27.

DZ BANK is involved as **originator** and **sponsor** respectively in the AUTOBAHN and CORAL securitizations that are required to be consolidated. Because of the turmoil in the financial markets that has been ongoing since the middle of 2007, the CORAL ABCP conduit has had to resort to liquidity facilities provided

SECURITIZATION EXPOSURES OF THE COMPANIES IN THE DZ BANK BANKING GROUP IN THEIR CAPACITY AS ORIGINATORS AND SPONSORS

Company / Transaction	Type of transaction	Role	Purpose of transaction	Type of assets	Volume[1]	Retained exposures	Comments
DZ BANK							
DYNASO	Synthetic CDO	Originator	Issuing activity	AAA/AA CLN on portfolio of corporate assets	€0.5 billion	Exposure of €134.6 million in the Bank's own portfolio	./.
KONSUS	Synthetic CDO	Originator	Issuing activity	Loans and advances to European corporates and an ABS exposure	€1.4 billion	First-loss piece amounting to €53.2 million	Synthetic CDO on ABS/CDO transaction
CORAL	ABCP conduit	Originator	Generation of commission income	Loans and advances to European corporates and an ABS exposure	€0.8 billion	Commitments of €0.8 billion, €0.7 billion of which has been utilized	Provision of liquidity lines
AUTOBAHN	ABCP conduit	Sponsor	Generation of commission income	Loans and advances to North American customers	€1.9 billion	Unutilized commitments of €3.1 billion	Provision of liquidity lines
Third-party conduits	ABCP conduit	Sponsor	Generation of commission income	Lease and trade receivables	€0.15 billion	Commitments of €0.15 billion, €0.1 billion of which has been utilized	Provision of liquidity lines
DG HYP							
BAUHAUS	Synthetic securitization	Originator	Capital and liquidity management; transfer of risk	Mortgage-backed real-estate loans in German retail business	€0.2 billion	First-loss piece amounting to €14.0 million	First-loss piece fully hedged by third parties
PROVIDE VR	Synthetic securitization	Originator	Capital and liquidity management; transfer of risk	Mortgage-backed real-estate loans in German retail business	€0.9 billion	First-loss piece amounting to €14.5 million	First-loss piece fully hedged by third parties
PROSCORE VR	Synthetic securitization	Originator	Capital and liquidity management; transfer of risk	Mortgage-backed real-estate loans to corporates in Germany	€0.4 billion	First-loss piece amounting to €13.5 million	First-loss piece not hedged
VR-LEASING							
LEAGUE	Lease securitization	Originator	Capital and liquidity management; transfer of risk	Lease receivables from corporates in Germany	€0.4 billion	Credit enhancements amounting to €39.3 million	Non-recourse sale to DZ BANK for securitization purposes
CORAL[2]	Synthetic securitization	Originator	Capital and liquidity management; transfer of risk	Lease receivables from corporates in Germany	€0.3 billion	Credit enhancements amounting to €15.4 million	Credit enhancements not hedged

1 Before consolidation
2 Included in the CORAL transaction of DZ BANK

Figure 11

by DZ BANK. However, the CORAL ABCP conduit managed to offload most of its asset-backed securities by selling part of its portfolio without recourse at the bonds' par value to a special-purpose entity financed by the Federal Reserve Bank of New York. By contrast, the AUTOBAHN ABCP conduit managed to reduce its utilization of DZ BANK's liquidity facilities to zero. This is because it took part in a commercial-paper purchasing program set up by the US Federal Reserve Board. Provided they meet the requirements of IAS 27 in conjunction with SIC-12, the special-purpose entities integrated into these conduits are currently being fully consolidated, together with their assets and liabilities, by DZ BANK. The ABCP conduits' material assets, liabilities, income and expense and the resultant opportunities and risks are being 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 a DZ BANK Group company.

The intensifying financial crisis in 2008 resulted in a persistent lack of transparency as regards pricing indicators, especially for asset-backed securities. Consequently, the fair value of asset-backed securities is determined using a measurement model that is consistent with Level 3 of the fair value hierarchy and is appropriate in cases where markets are illiquid and the relevant parameters can essentially no longer be observed in the market. Under the **discounted cash flow** method recommended by the International Accounting Standards Board Expert Advisory Panel, accurate and appropriate credit and liquidity spreads were used as the input values for the measurement of asset-backed securities. These values are essentially based on estimates; the initial figures used are the values most recently observed in an active market that are deemed to be reliable given the increase in illiquidity since 2007.

Research reports by major market participants and consensus market data are also used to enable exposures to be measured and broken down by sector, credit rating and currency.

4.5.4 Procedure for determining the risk-weighted exposures for securitizations

(Disclosure pursuant to section 334 (1) number 4 SolvV)

Securitization exposures retained by companies in the Bank business segment of 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 241 SolvV. In the Real Estate Finance business segment, originator exposures retained for residential mortgage-backed securities are also reported under the IRB approach because most of the underlying exposures are assigned to IRB asset classes. The IRB procedures used have been approved by BaFin.

When acting as a **sponsor,** the Bank uses the internal classification procedure specified in section 259 SolvV that has been tested and approved by BaFin so that it can calculate the risk-weighted exposures of securitizations for asset-backed commercial paper programs that do not have any external credit rating.

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 the capital requirements for general and specific market price risk. These exposures are factored into the capital requirements for market price risk and are therefore not disclosed as credit risk exposures as defined in the Solvency Ordinance. The remaining exposures are assigned to the banking book and are described in chapter 4.7.9. These exposures are rated for regulatory purposes mainly on the basis of the ratings-based approach and the rating categories that it specifies.

4.5.5 Rating agencies used for securitizations

(Disclosure pursuant to section 334 (1) number 6 SolvV)

When transacting securitizations, the DZ BANK Group uses the classifications prescribed by the rating agencies Standard & Poor's Ratings Services, Moody's Investors Service and Fitch Ratings Ltd for both originator-related and investor-related exposures. These securitizations relate to assets resulting from retail and corporate credits, to assets under CMBSs and CDOs and to exposures to special-purpose entities. Competing external ratings are included in the calculation of risk-weighted exposures in accordance with sections 44 and 45 SolvV. External credit ratings awarded by these recognized rating agencies are transferred to the securitization exposures of the DZ BANK banking group in accordance with the requirements of sections 242 to 244 SolvV.

4.6 RECOGNITION OF ALLOWANCES FOR LOSSES ON LOANS AND ADVANCES

The **policies and procedures governing the recognition of allowances for losses on loans and advances** for the companies in the DZ BANK banking group (disclosure pursuant to section 327 (1) number 2 SolvV) and other **accounting-related information on credit risk** (disclosure pursuant to section 327 (1) number 1 SolvV) are presented in the section entitled "Management of non-performing exposures" in the "Credit risk" chapter of the risk report contained in the group management 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.

4.7 QUANTITATIVE INFORMATION ON CREDIT RISK

4.7.1 Notes on the quantitative disclosure of credit risk

Chapter 4.7 of this risk report deals with disclosure of credit risk in the DZ BANK banking group. Chapter 4.7.2 looks at disclosure of the total lending volume. This is done by the DZ BANK Group's internal risk reports, which are submitted to the Bank's Board of Managing Directors, although reference is also made to pertinent disclosures made in the risk report contained in the group management report. By contrast, chapters 4.7.3 to 4.7.10 merely disclose portions of the total lending volume which, in the case of information disclosed in accordance with the Solvency Ordinance, are based on criteria prescribed for regulatory purposes, such as asset classes and risk-weighting bands.

The disclosures on lending volume differ in terms of the methodology they use in the regulatory and commercial-law risk reports in the sense that the internal reports are based on asset values in the form of the basis of measurement before collateral and after deduction of the recognized allowances for losses on loans and advances, whereas in chapters 4.7.3 to 4.7.7 and in chapter 4.7.9 the relevant exposures are reported as the exposures expected at the time of the potential default. In addition, the quantitative disclosures differ owing to the different recognition of conversion factors for the credit lines granted and outstanding.

The aggregate lending portfolio presented in chapter 4.7.2 is similar to the aggregated regulatory subportfolios shown in Tables 5b (I), 6d (I), 6d (II), 6d (IV) and 9f. However, the sum totals cannot totally be reconciled to one another owing to the different definitions of key figures and the methods used to recognize collateral. Further discrepancies arise from the different methods used to recognize strategic investments and the volume of R+V credit insurance.

The securitization and leveraged finance exposures presented in chapters 4.7.7 and 4.7.9 in order to implement the FSF's disclosure recommendations are contained in the aggregate portfolios presented in table group 4 and in the subportfolios presented in table groups 5, 6 and 9.

4.7.2 Gross lending volumes and allowances for losses on loans and advances

Table group 4, which contains multi-approach information on gross lending volumes and allowances for losses on loans and advances, is fully disclosed in the risk report contained in the group management report. The regulatory requirements and the corresponding requirements under IFRS 7 are presented together. To ensure compliance with the IFRS 7 requirements on use of the Management Approach, disclosure of gross lending volumes and allowances for losses on loans and advances in the risk report contained in the group management report is based on the figures used for internal management purposes, which 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 relevant reasons given in the Solvency Ordinance, under which the lending volume and the companies 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 use cases in table group 4 are presented as follows in the risk report contained in the group management report:

– The information from **Table 4d** "Gross lending volumes broken down by main industry and asset type" (disclosure pursuant to section 327 (2) numbers 1 and 2 SolvV) is published in the table "Credit risk concentration by industry".

– The information from **Table 4b and 4c** "Gross lending volumes broken down by main geographical area and asset type" (disclosure pursuant to section 327 (2) number 3 SolvV) is published in the table "Credit risk concentration by country group".

– The information from **Table 4e** "Contractual residual maturities" (disclosure pursuant to section 327 (2) number 4 SolvV) is disclosed in the table "Lending volumes by residual maturity".

– The information from **Table 4f** "Non-performing loans and loans in arrears broken down by main industry" (disclosure pursuant to section 327 (2) number 5 SolvV) is published in the tables "Lending volume past due but not impaired and collateral, by industry", "Impaired lending volume and collateral, by industry", "Allowances for losses on loans and advances, direct impairment losses, by industry – 2008", and "Provisions for loan commitments and liabilities arising from financial guarantee contracts an loan commitments, by industry – 2008".

– The information from **Table 4g** "Non-performing loans and loans in arrears broken down by main geographical area" (disclosure pursuant to section 327 (2) number 5 SolvV) is published in the tables "Lending volume past due but not impaired and collateral, by country group", "Impaired lending volume and collateral, by country group", "Allowances for losses on loans and advances, direct impairment losses, by country group – 2008", and "Provisions for loan commitments and liabilities arising from financial guarantee contracts an loan commitments, by country group – 2008".

Because the contents of **Table 4h** "Allowances for losses on loans and advances over time" (disclosure pursuant to section 327 (2) number 6 SolvV) are covered by Tables 4f and 4g, no separate disclosure is provided.

4.7.3 Exposures under the Standardized Approach to credit risk

EXPOSURES UNDER THE STANDARDIZED APPROACH TO CREDIT RISK AND EXPOSURE TO INVESTMENTS AND MORTGAGE-BACKED SECURITIES SUBJECT TO THE SIMPLE RISK-WEIGHTING METHOD

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

Table 5b (I) 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 under 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.

TABLE 5B (I): EXPOSURES UNDER THE STANDARDIZED APPROACH TO CREDIT RISK AND EXPOSURE TO INVESTMENTS AND MORTGAGE-BACKED SECURITIES SUBJECT TO THE SIMPLE RISK-WEIGHTING METHOD

€ million		Sum total of exposures after mitigation of credit risks	
Risk weightings	**Total exposures before credit risk mitigation under the Standardized Approach**	**Total exposures after credit risk mitigation under the Standardized Approach**	**Total exposures after credit risk mitigation under the IRB approach for investments and mortgage-backed exposures under the simple risk-weighting method**
0 %	100,359	103,918	
10 %	323	323	
20 %	5,015	4,112	
35 %	1	402	
50 %	715	1,268	709
75 %	4,087	3,446	
100 %	24,083	20,831	
150 %	935	854	
190 %			1
200 %	0	0	
290 %			97
350 %	0	0	
370 %			118
1,250 %	0	0	
Capital deduction	0	0	
Total	**135,518**	**135,154**	**925**

Figure 12

EXPOSURE TO SPECIALIZED FINANCIAL SERVICES SUBJECT TO THE SIMPLE RISK-WEIGHTING METHOD

(Disclosure pursuant to section 329 (2) SolvV)

Table 5b (II) shows exposures to specialized financial services subject to the simple risk-weighting method that are broken down by risk weighting.

TABLE 5B (II): EXPOSURES TO SPECIALIZED FINANCIAL SERVICES SUBJECT TO THE SIMPLE RISK-WEIGHTING METHOD

€ million	
Risk weightings	**Exposures**
50 %	57
70 %	912
of which: with a residual maturity of less than 2.5 years	111
90 %	754
115 %	407
250 %	25
0 % (Default)	0
Total	**2,155**

Figure 13

4.7.4 Exposures under the IRB approaches

Tables 6d (I), 6d (II) and 6d (IV) below show the IRBA lending volumes for borrowers and transactions that are classified on the basis of internal credit ratings. The internally used rating systems have been unambiguously assigned to a regulatory asset class. The borrowers and transactions are assigned to a credit rating category based on their individual rating in the form of their specific default probability or expected loss. To enable them to be assigned to the appropriate table, the credit rating categories of the various risk classification systems are allocated to the standard groupwide GRC rating categories. The transactions are classified as either "investment grade", "non-investment grade" or "default" on the basis of the corresponding default probabilities for each credit rating category. These classifications are shown on page 85 of the risk report contained in the group management report.

LENDING VOLUMES BROKEN DOWN BY PROBABILITY OF DEFAULT (PD) CATEGORY (EXCLUDING RETAIL) UNDER THE FOUNDATION IRB APPROACH

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

Table 6d (**I**) shows the following key figures that are based on the IRBA asset classes of central governments, institutions, corporates and investments and are broken down by risk category:

– the total exposures and, in particular, the exposures relating to unutilized loan commitments
– the average risk weightings that have been weighted according to their exposures.

TABLE 6D (I): LENDING VOLUMES BROKEN DOWN BY PD CATEGORIES (EXCLUDING RETAIL) UNDER THE FOUNDATION IRB APPROACH

	Investment grade			Non-investment grade			Default			Total		
€ million	Exposure			Exposure			Exposure			Exposure		
Asset classes	Total	of which: open loan commitments	Average risk weighting	Total	of which: open loan commitments	Average risk weighting	Total	of which: open loan commitments	Average risk weighting	Total	of which: open loan commitments	Average risk weighting
Central governments	4,365	149	10.6 %	300	113	136.6 %	13	0	0.0 %	4,678	262	18.7 %
Institutions	63,121	1,093	20.5	1,851	93	134.1 %	738	0	0.0 %	65,710	1,186	23.5 %
Corporates	18,378	5,055	47.7 %	7,741	1,302	102.0 %	1,123	93	0.0 %	27,242	6,450	61.1 %
of which: SMEs	0	0	-	0	0	-	0	0	-	0	0	-
of which: specialized financial services	3,393	711	43.2 %	756	151	117.7 %	98	1	0.0 %	4,247	863	55.5 %
of which: purchased receivables	0	0	-	0	0	-	0	0	-	0	0	-
Investment exposures	9		97.8 %	2		254.4 %	0		-	11		15.0 %
Total	**85,873**	6,297		**9,894**	1,508		**1,874**	93		**97,641**	7,898	

Figure 14

The exposures incurred by outstanding credit lines are 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 VOLUMES BROKEN DOWN BY CATEGORY (EXCLUDING RETAIL) UNDER THE ADVANCED IRB APPROACH

(Disclosure pursuant to section 335 (2) numbers 1 and 2 SolvV)

Table 6d (II) shows the following key figures that are based on the IRBA asset classes of central governments, institutions, corporates and investments and are broken down by risk category:

– 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, the exposures relating to unutilized loan commitments
– the average exposures incurred by open loan commitments
– the average risk weightings that have been weighted according to their exposures.

The Basel capital requirements for Table 6d (III) on unutilized loan commitments and risk-weighted exposures for each portfolio under the advanced IRB approach are covered by Table 6d (II) pursuant to section 335 (2) number 2d SolvV. Table 6d (III) is therefore not disclosed separately.

LOAN DRAWDOWNS AND LOAN COMMITMENTS FOR RETAIL PORTFOLIOS: RETAIL IRB APPROACH BASED ON EXPECTED LOSSES

(Disclosure pursuant to section 335 (2) numbers 2 and 3 SolvV)

Table 6d (IV) shows the total exposures that are based on the IRBA asset class of retail business and are broken down in each case by risk category.

ACTUAL LOSSES INCURRED IN LENDING BUSINESS

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

The information given in **Table 6e** relates to the asset classes of central governments, institutions, corporates (including small and medium-sized enterprises, specialized financial services and purchased receivables that are treated as corporate assets), retail business (broken down into mortgage-backed IRBA exposures, qualified revolving IRBA exposures and other IRBA exposures) and investments that are backed by capital using individual probabilities of default (PD/LGD approach).

Calculations of the losses presented in Table 6e are based on the carrying amounts recognized under the German Commercial Code. Market-price-related impairment losses on securities portfolios and investments not managed according to their default probabilities are not shown. The information disclosed in the regulatory risk report takes account of the allowances for losses on loans and advances and the loan loss provisions reported in the risk report of the group management report as described below:

– Additions of €818 million to specific impairment losses (including specific loan loss allowances measured on a group basis) are offset against reversals of such losses (€348 million) for 2008.
– In addition, a provision is recognized for the difference between direct impairment losses (€69 million) and amounts received for impaired assets (€21 million) during the reporting period.
– Finally, additions of €33 million to provisions are offset against reversals of €56 million.

The sum total of these components constitutes the actual loss incurred by the aggregate portfolio, which amounted to €495 million in 2008. An actual loss of €424 million is reported for the IRBA subportfolios shown in Table 6e for 2008. The difference of €71 million between the two losses is attributable to the Standardized Approach portfolios held in the DZ BANK banking group.

EXPECTED AND ACTUAL LOSSES INCURRED IN LENDING BUSINESS

(Disclosure pursuant to section 335 (2) number 6 SolvV)

Table 6f compares the expected losses with the losses actually incurred during the period January 1 to December 31, 2008 for the IRBA asset classes of central governments, institutions, corporates (including large companies, small and medium-sized enterprises, specialized financial services and purchased receivables that are treated as corporate assets) and retail business. Investments risk-rated under the PD/LGD approach have also been included in calculations of capital requirements since the first quarter of 2008.

TABLE 6D (II): LENDING VOLUMES BROKEN DOWN BY PD CATEGORIES (EXCLUDING RETAIL) UNDER THE ADVANCED IRB APPROACH

€ million	Investment grade						Non-investment grade					
		Exposure						Exposure				
Asset classes	Total amount of open loan commit-ments	Total	of which: open loan commit-ments	Average expo-sure	Average LGD	Average risk weight-ing	Total amount of open loan commit-ments	Total	of which: open loan commit-ments	Average expo-sure	Average LGD	Average risk weight-ing
Central govern-ments	0	0	0	-	-	-	0	0	0	-	-	-
Institutions	0	0	0	-	-	-	0	0	0	-	-	-
Corporates	667	3,503	667	100 %	9.1 %	7.3 %	2,822	13,621	2,822	100 %	6.7 %	27.7 %
of which: small and medium-sized enter-prises	0	0	0	-	-	-	0	0	0	-	-	-
of which: specia-lized financial services	0	0	0	-	-	-	0	0	0	-	-	-
of which: purchased receivab-les	0	0	0	-	-	-	0	0	0	-	-	-
Investment exposures		0		-	-	-		0		-	-	-
Total	**667**	**3,503**	**667**				**2,822**	**13,621**	**2,822**			

Figure 15

TABLE 6D (IV): LOAN UTILIZATIONS AND LOAN COMMITMENTS FOR RETAIL PORTFOLIOS – EL-BASED RETAIL IRB APPROACH

€ million Asset classes	Exposure for EL category 1 (EL = 0 to 30 bp)	Exposure for EL category 2 (EL = 31 to 70 bp)	Exposure for EL category 3 (EL > 70 bp)	Total
Mortgage-backed IRBA receivables from retail business	22,147	2,537	4,036	28,720
Qualified revolving IRBA receivables from retail business	0	0	0	0
Other IRBA receivables from retail business	6,929	865	3,042	10,835
Total	**29,076**	**3,402**	**7,078**	**39,556**

Figure 16

Default						Total					
	Exposure						Exposure				
Total amount of open loan commitments	Total	of which: open loan commitments	Average exposure	Average LGD	Average risk weighting	Total amount of open loan commitments	Total	of which: open loan commitments	Average exposure	Average LGD	Average risk weighting
0	0	0	-	-	-	0	0	0	-	-	-
0	0	0	-	-	-	0	0	0	-	-	-
1	100	1	100 %	7.8 %	0.0 %	3,490	17,224	3,490	100 %	7.2 %	23.4 %
0	0	0	-	-	-	0	0	0	-	-	-
0	0	0	-	-	-	0	0	0	-	-	-
0	0	0	-	-	-	0	0	0	-	-	-
0	0	0	-	-	-	0	0	0	-	-	-
1	**100**	**1**				**3,490**	**17,224**	**3,490**			

TABLE 6E: ACTUAL LOSSES IN LENDING BUSINESS

€ million Asset classes	Losses incurred between Jan. 1 and Dec. 31, 2008
Central governments	0
Institutions	221
Corporates	81
Equity instruments	0
Mortgage-backed IRBA receivables from retail business	64
Qualified revolving IRBA receivables from retail business	0
Other IRBA receivables from retail business	58
Total	**424**

Figure 17

TABLE 6F: EXPECTED AND ACTUAL LOSSES INCURRED IN LENDING BUSINESS

€ million	Losses incurred between Jan. 1 and Dec. 31, 2008	
Asset classes	Expected	Actual
Central governments	10	0
Institutions	18	220
Corporates	183	92
Equity instruments	0	0
Mortgage-backed IRBA receivables from retail business	127	21
Qualified revolving IRBA receivables from retail business	0	0
Other IRBA receivables from retail business	94	42
Total	**432**	**375**

Figure 18

The estimate of the expected losses for 2008 relates to the non-defaulting risk-weighted assets in the Bank's conventional lending business. Consequently, it does not factor in the expected losses on securities in the banking book or on counterparty risks arising from derivatives. The presented losses that have actually occurred also relate to the exposures that had not yet defaulted at the beginning of the reporting period. The definition of "loss" corresponds to the definition used for Table 6e.

Table 6f shows that the losses actually incurred in 2008 (€375 million) at the level of the DZ BANK banking group and across all asset classes were €57 million lower than the expected losses (€432 million). The picture varies considerably from one asset class to another. For example, the loss incurred in the asset class of institutions was largely attributable to the financial market turmoil that had been ongoing since mid-2007 and intensified further during the course of 2008. This situation was exacerbated by the default of several banks. By contrast, the expected losses for corporate and private customers (mortgage-backed IRBA assets in retail business and other IRBA retail assets) far exceeded the losses actually incurred.

4.7.5 Collateralized exposures

NOTES ON COLLATERALIZED EXPOSURES

The risk report contained in the group management report presents the collateral provided for transactions with less-than-impeccable credit ratings in the tables showing past due but not impaired lending volumes and collateral broken down by industry and by country group and showing lending volumes and collateral in individually impaired portfolios broken down by industry and by country group. The presentation of collateral in the group management report thus describes a totally separate portfolio segment and cannot be compared with the information disclosed for regulatory purposes. The quantitative information on collateral given in the two risk reports differs slightly owing to the different methods used by IAS/IFRS and the Solvency Ordinance to determine the impairment of hedging instruments.

Tables 7b and 7c cover the volume of assets – broken down into the IRB approaches and the Standardized Approach to credit risk – which is backed by collateral that is risk-weighted for regulatory purposes. The volume of business generated by the collateralized transactions is shown in Table 5b (I) and in table group 6 of this risk report. The collateralization effect of the guarantees provided by counterparties under the Standardized Approach to credit risk is illustrated in Table 5b (I), which shows the partial shift in lending volumes from higher to lower risk weightings between the table columns that present the total exposures both 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 the loss given default.

TABLE 7B: COLLATERALIZED EXPOSURES UNDER THE STANDARDIZED APPROACH TO CREDIT RISK (EXCLUDING SECURITIZATIONS)

€ million Asset classes	Financial collateral	Guarantees
Central governments	3,219	0
Regional governments and local authorities	0	0
Other public-sector entities	0	4
Multilateral development banks	0	0
International organizations	0	0
Institutions	749	471
Covered bonds issued by banks	0	0
Corporates	1,636	2,012
Retail business	0	314
Exposures collateralized by real estate	0	0
Investment fund units	0	0
Investments	0	0
Other exposures	0	0
Past due exposures	0	15
Total	**5,604**	**2,816**

Figure 19

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

(Disclosure pursuant to section 336 number 2 SolvV)

Table 7b shows the exposures, broken down by asset class under the Standardized Approach to credit risk, that are backed by financial collateral or guarantees. The mitigation of credit risk is presented in each case together with the exposures that are risk-weighted for regulatory purposes.

COLLATERALIZED EXPOSURES UNDER THE IRB APPROACHES (EXCLUDING SECURITIZATIONS)

(Disclosure pursuant to section 336 number 2 SolvV)

Table 7c shows the exposures, broken down by IRBA asset class, that are backed by financial collateral, other IRBA collateral (such as real estate and other collateral security) or guarantees. The mitigation of credit risk is presented in each case together with the exposures that are risk-weighted for regulatory purposes. For certain IRBA assets belonging to BSH, DG HYP or DVB, the mortgage-related or real-estate collateral recognized for credit risk mitigation purposes is included in the calculation of capital requirements as the loss given default. The table shows the collateralized exposure for these transactions.

4.7.6 Counterparty risk exposures to derivatives in the banking book and trading book

(Disclosure pursuant to section 326 SolvV)

Table 8b (I) contains the aggregated counterparty risk exposures to derivatives in the banking book and trading book, which are already disclosed for each regulatory subportfolio level in Tables 5b (I), 6d (I), 6d (II) and 6d (IV). The exposures that are processed directly via a risk-free central counterparty (clearing house) are not included in Table 8b (I). This table therefore shows over-the-counter (OTC) derivatives as well as derivatives that are traded via an intermediary – such as a broker – and listed on a stock exchange. All derivatives exposures arising from securitizations are disclosed in Table 9f. Table 8b (III) shows the notional amounts of credit derivatives that are used for regulatory hedging purposes.

Table 8b (I) shows the counterparty risk exposures to derivatives in the banking book and trading book in the form of positive fair values before and after the risk-weighting of offsetting derivatives exposures and collateral. The counterparty risk arising from derivatives is also broken down into the various types of contract.

TABLE 7C: COLLATERALIZED EXPOSURES UNDER THE IRB APPROACHES (EXCLUDING SECURITIZATIONS)

€ million **Asset classes**	**Financial collateral**	**Other collateral**	**Guarantees**
Corporates	432	16,197	2,286
Institutions	9,673	3	318
Central governments	1,749	16	2,415
Retail business	0	26,156	879
of which: mortgage-backed	0	26,156	879
qualified revolving	0	0	0
other	0	0	0
Investments	6	0	0
of which: simple risk-weighting approach	6	0	0
internal modeling approach	0	0	0
PD/LGD approach	0	0	0
Other credit-independent assets	0	0	0
Total	**11,860**	**42,372**	**5,898**

Figure 20

TABLE 8B (I): COUNTERPARTY RISK EXPOSURES TO DERIVATIVES INCLUDING AND EXCLUDING OFFSETTING AGREEMENTS AND COLLATERAL

€ million Types of contract	Positive replacement values excluding offsetting and collateral	Possibilities for offsetting	Eligible collateral	Positive replacement values including offsetting and collateral
Interest-related contracts	21,471			
Currency-related contracts	3,460			
Equity- and index-related contracts	3,459			
Credit derivatives	4,237			
Commodity-related contracts	32			
Other contracts	1			
Total	32,660	26,385	2,377	3,898

Figure 21

TABLE 8B (II): WEIGHTED COUNTERPARTY RISK IN RELATION TO COUNTERPARTY RISK EXPOSURES TO DERIVATIVES AND BROKEN DOWN BY THE APPROACH USED

€ million	Exposure under the original-maturity method	Exposure under the mark-to-market method	Exposure under the standardized method	Exposure under the internal model
Counterparty risk exposure	0	14,777	0	0

Figure 22

Table 8b (II) shows the weighted counterparty risk in the form of the measurement basis for the Standardized Approach to credit risk and for the IRB approaches in relation to the counterparty risk exposures to derivatives presented in Table 8b (I). Disclosures are broken down into the regulatory mark-to-market method – which is used by trading book institutions and by some non-trading book institutions – and the original-maturity method, which is used by the remaining non-trading book institutions.

Table 8b (III) shows the notional amount of credit derivatives risk-weighted for regulatory purposes and used to hedge counterparty risk exposures to derivatives. This notional amount was €1,413 million on December 31, 2008.

Table 8c shows the notional amounts of credit derivatives bought and sold, broken down by type of derivative. No credit derivatives from the DZ BANK Group companies' intermediary operations were held on December 31, 2008.

TABLE 8C: NOTIONAL AMOUNTS OF CREDIT DERIVATIVES BROKEN DOWN BY TYPE OF USE

€ million	Notional amount arising from use for own credit portfolio	
Credit derivatives	Bought	Sold
Credit default swaps	49,507	59,054
Total return swaps	5,459	355
Credit-linked notes	2,399	16
Other	0	0
Total	57,365	59,425

Figure 23

4.7.7 Securitization of the Bank's own assets

TOTAL AMOUNT OF SECURITIZED ASSETS

(Disclosure pursuant to section 334 (2) number 1 SolvV)

Table 9d shows the total amount of originated securitizations whose underlying transactions are kept on the books of the DZ BANK banking group. The securitizations shown here are all synthetic because the Bank did not engage in any conventional securitizations.

IMPAIRED SECURITIZATIONS, SECURITIZATIONS IN ARREARS, AND LOSSES REALIZED DURING THE REPORTING PERIOD

(Disclosure pursuant to section 334 (2) number 2 SolvV)

Referring to the receivables and assets presented in Table 9d in the context of non-performing securitization exposures, **Table 9e** shows the portions of the Bank's own asset securitizations that are past due or at risk of default, broken down by type of securitization. The table also presents the losses realized as a result of these exposures during the reporting period, also broken down by type of securitization. The definition of "loss" corresponds to the definition used for Tables 6e and 6f.

SECURITIZATIONS DURING THE REPORTING YEAR

(Disclosure pursuant to section 334 (2) number 6 SolvV)

In 2008 the Bank incorporated its own leased assets and purchased leased assets worth €96 million into securitizations, as shown in **Table 9j** of the use cases. No gains or losses were realized on these transactions.

4.7.8 Securitization exposures in the banking book and trading book

(Disclosure pursuant to FSF recommendations)

The remaining **volume of securitizations** at risk in the books of the DZ BANK banking group amounted to €20.1 billion on December 31, 2008. This amount had been reduced by €5.1 billion since December 31, 2007, partly as a result of repayments. The Group also had receivables of €4.3 billion from special-purpose entities, most of which were owed by affiliated ABCP conduits. Given that the DZ BANK banking group's total lending volume amounts to €349.1 billion, its securitization exposures of €24.4 billion constitute a significant subportfolio that is actively managed. The information presented on its portfolio below is essentially based on the market-related fair value of exposures at the relevant reporting date.

TABLE 9D: TOTAL AMOUNT OF ASSET SECURITIZATIONS

€ million Asset classes	Carrying amount of synthetic securitizations
Receivables from home loans	881
Receivables from wholly or partially commercial real-estate loans	345
Loans and advances to corporates (including small and medium-sized enterprises)	0
Receivables from the Bank's own and purchased leased assets	792
Receivables from vehicle finance (excluding leases)	0
Receivables from other retail business	0
Receivables from CDOs and ABSs	0
Total	**2,018**

Figure 24

TABLE 9E: IMPAIRED SECURITIZATIONS, SECURITIZATIONS IN ARREARS, AND LOSSES REALIZED DURING THE REPORTING PERIOD

€ million Asset classes	Past due and non-performing securitizations	Losses during the reporting period
Receivables from home loans	34	13
Receivables from wholly or partially commercial real-estate loans	15	3
Loans and advances to corporates (including small and medium-sized enterprises)	0	0
Receivables from the Bank's own and purchased leased assets	0	0
Receivables from vehicle finance (excluding leases)	0	0
Receivables from other retail business	0	0
Receivables from CDOs and ABSs	0	0
Total	**49**	**16**

Figure 25

Most investor-related exposures have been assigned to the trading book, and residential mortgage-backed securities (RMBSs) accounted for 63 percent of these exposures on December 31, 2008. Figure 26 shows the changes in the value of this portfolio as a result of value adjustments and changes to the composition of the portfolio over the course of 2008. The portfolio lost €1.35 billion in value as a result of the ongoing market turmoil between January 1 and December 31, 2008. As things stand, these value adjustments largely constitute fluctuations in market value that can recover by the time the securitization exposures reach their maturity date.

For US-based exposures secured by residential real estate, lending institutions have broken their subportfolios down into the categories “Prime”, “Subprime” and “Alt-A” for credit rating and collateral purposes. The DZ BANK banking group defines subprime borrowers as those with scores of less than 640 points based on the standard FICO credit-scoring system used to assess mortgage customers in the United States. Borrowers with FICO scores of between 640 and 700 points are rated Alt-A. Customers with FICO scores of more than 700 points are classified as prime exposures. In addition to their FICO scores, mortgage exposures on the borderline between risk bands are also classified on the basis of other key figures such as their loan-to-value ratios.

Figures 27 and 28 show the Bank’s securitization exposures broken down by their external **credit rating,** as awarded by recognized rating agencies, and by their **region of origin.** Although the external credit ratings are based on the most conservative rating available in the market in each case, the credit quality of the DZ BANK banking group’s portfolio continues to be rated either “good” or “very good” despite the downgrades observed in recent months. The vast majority of its securitization exposures are still classified in its top internal rating cat-

CHANGES IN THE COMPOSITION AND VALUE OF THE SECURITIZATION PORTFOLIO

€ million **Asset classes**	**Fair value on Jan. 1, 2008 before changes in composition and value**	Changes in composition due to purchases, sales, redemptions and exchange-rate fluctuations	Changes in value	**Fair value on Dec. 31, 2008 after changes in composition and value**
Receivables from retail credits	18,002	-3,547	-932	13,523
of which: RMBSs	16,827	-3,232	-924	12,671
of which: assets classified as subprime	2,913	-237	-750	1,926
of which: assets classified as Alt-A	831	-86	-215	530
Receivables from corporate credits[1]	1,706	-551	2	1,157
Receivables from CMBSs	3,694	-400	-131	3,163
Receivables from CDOs	1,803	679	-244	2,238
Exposures to conduits[2]	6,035	-1,663	-45	4,327
Total	**31,240**	**-5,482**	**-1,350**	**24,408**

1 Including receivables from purchased leased assets with a fair value of €657 million on Jan. 1, 2008 and of €468 million on Dec. 31, 2008
2 Including reported receivables from conduits, especially ABCP conduits, and liquidity facilities provided for ABCP conduits

Figure 26

CREDIT QUALITY OF THE SECURITIZATION PORTFOLIO

€ million Asset classes	AAA	AA+ to AA-	A+ to A-	BBB+ to B-	CCC+ to C-	Not rated	Total
Receivables from retail credits	10,530	1,364	607	793	130	99	13,523
of which: RMBSs	9,754	1,323	583	782	130	99	12,671
of which: assets classified as subprime	522	550	190	538	126	0	1,926
of which: assets classified as Alt-A	218	79	91	138	4	0	530
Receivables from corporate credits[1]	983	32	7	135	0	0	1,157
Receivables from CMBSs	2,575	332	228	28	0	0	3,163
Receivables from CDOs	1,685	175	150	133	38	57	2,238
Exposures to conduits[2]	994	741	1,649	834	26	83	4,327
Total	**16,767**	**2,644**	**2,641**	**1,923**	**194**	**239**	**24,408**

1 Including receivables from purchased leased assets amounting to €468 million
2 Including reported receivables from conduits, especially ABCP conduits, and liquidity facilities provided for ABCP conduits

Figure 27

GEOGRAPHICAL COMPOSITION OF THE SECURITIZATION PORTFOLIO BROKEN DOWN BY COUNTRY OF UNDERLYING ASSET

€ million Asset classes	Germany	British Isles	Spain	Netherlands	Italy	Rest of EU	United States	Australia	Other countries	Total
Receivables from retail credits	173	2,527	2,662	1,694	1,137	730	2,703	1,655	244	13,525
of which: RMBSs	119	2,517	2,433	1,662	913	681	2,538	1,606	202	12,671
of which: assets classified as subprime	0	0	0	0	0	0	1,926	0	0	1,926
of which: assets classified as Alt-A	0	0	0	0	0	0	530	0	0	530
Receivables from corporate credits[1]	190	22	136	27	450	150	4	42	133	1,154
Receivables from CMBSs	287	723	89	135	164	291	1,135	130	210	3,164
Receivables from CDOs	7	32	16	36	61	453	1,548	78	8	2,239
Exposures to special-purpose entities[2]	856	0	0	0	0	1	3,305	0	164	4,326
Total	**1,513**	**3,304**	**2,903**	**1,892**	**1,812**	**1,625**	**8,695**	**1,905**	**759**	**24,408**

1 Including receivables from purchased leased assets amounting to €468 million
2 Including reported receivables from conduits, especially ABCP conduits, and liquidity facilities provided for ABCP conduits

Figure 28

egory (GRC rating group I). On December 31, 2008 the Bank held €1.9 billion worth of mortgage-backed real-estate loans that are classified in the US subprime segment. 56 percent of these exposures were rated AA or better. Value adjustments of €750 million were recognized on subprime exposures in 2008.

The item "Receivables from CDOs" contained collateralized debt obligations worth approximately €56 million on December 31, 2008. The underlying instruments in these exposures consist – usually to a small extent – of receivables based on US consumer loans. The "not rated" category comprises synthetic portfolio purchases amounting to €99 million that do not have an external credit rating. Of this total, €20 million is attributable to German collateral and the remaining amount relates to loans and advances to borrowers based in the United Kingdom. The remainder of the non-rated exposures essentially comprises a commercial real-estate CDO worth €54 million.

61 percent of the borrowers in the aggregate portfolio come from European countries, especially the United Kingdom, Spain, Italy and the Netherlands. Credit default insurance has been provided for the underlying transactions of almost all RMBS receivables based in Australia.

BREAKDOWN OF CDO PRODUCT CATEGORY BY PORTFOLIO INSTRUMENT

€ million

Product categories	Fair value
ABS of ABS	129
Commercial real estate	426
Corporates (including bank bonds and loans)	1,683
Total	**2,238**

Figure 29

BREAKDOWN OF SUBPRIME PORTFOLIO BY ORIGINAL YEAR OF ISSUE

€ million

Year of issue	Fair value
Prior to 2005	222
2005	647
2006	751
2007	307
Total	**1,926**

Figure 30

VOLUME OF ASSETS INSURED BY MONOLINERS

€ million

Monoliners' rating	Volume of assets
AA or better	324
A	204
Worse than A	161
Total	**690**

Figure 31

Figure 29 shows the securitization exposures in the CDO product category as at December 31, 2008, most of which have also been rated as having a good or very good credit quality.

Figure 30 shows the receivables in the Bank's subprime portfolio, broken down by the year in which the transactions were originally issued. Figure 31 shows the credit default insurance obtained from monoliners for securitizations, especially RMBS securities.

4.7.9 Securitization exposures in the banking book

RETAINED OR PURCHASED SECURITIZATION EXPOSURES

(Disclosure pursuant to section 334 (2) number 3 SolvV)

Table 9f shows the securitization exposures retained or purchased by the companies of the DZ BANK banking group in their capacity as originator, sponsor or investor, broken down by the type of underlying receivable in each case. The securitization exposures are recognized at their carrying amounts. The classification of the underlying receivables is based on the categories used for internal management purposes.

TABLE 9F: RETAINED AND PURCHASED SECURITIZATION EXPOSURES

€ million	Exposures under Standardized Approach to credit risk	Exposures under IRB approach
Securitization exposures		
Exposures reported on the balance sheet		
Receivables from home loans	7,921	2,156
Receivables from wholly or partially commercial real-estate loans	163	1,532
Receivables from corporate credits	223	1,063
Receivables from the Bank's own and purchased leased assets	338	4
Receivables from vehicle finance (excluding leases)	182	0
Receivables from other retail business	364	0
Receivables from CDOs and ABSs	98	598
Credit enhancements	9	814
Other exposures reported on the balance sheet	24	0
Total exposures reported on the balance sheet	9,322	6,167
Exposures not reported on the balance sheet		
Liquidity facilities	0	3,259
Derivatives	32	127
Exposures specific to synthetic transactions	0	0
Other exposures not reported on the balance sheet	0	0
Total exposures not reported on the balance sheet	32	3,386
Sum total	**9,354**	**9,553**

Figure 32

TOTAL AMOUNT AND CAPITAL ADEQUACY REQUIREMENTS FOR RETAINED OR PURCHASED SECURITIZATION EXPOSURES BROKEN DOWN BY RISK-WEIGHTING BAND

(Disclosure pursuant to section 334 (2) number 4 SolvV)

Tables 9g and 9i (I) show the securitization exposures in the banking book, broken down by regulatory risk-weighting band, and the relevant capital adequacy requirements.

4.7.10 Leveraged finance

(Disclosure pursuant to FSC recommendations)

Of all the companies in the DZ BANK banking group, only DZ BANK engages in leveraged finance on a significant scale. DZ BANK classifies mergers & acquisitions and related types of financing that involve an above-average level of gearing ("leverage") as leveraged finance transactions. These primarily include acquisition finance, especially for affiliated companies whose credit ratings essentially depend on the cash flows expected to be generated by the acquired companies:

– leveraged buy-outs by financial sponsors
– recapitalization and refinancing of acquisitions
– management buy-outs and management buy-ins.

DZ BANK also arranges and underwrites this type of acquisition finance.

TABLES 9G AND 9I (I): TOTAL AMOUNTS AND CAPITAL ADEQUACY REQUIREMENTS OF RETAINED AND PURCHASED SECURITIZATION EXPOSURES BROKEN DOWN BY RISK-WEIGHTING BAND

€ million Risk-weighting bands	Exposures	Capital requirements under Standardized Approach to credit risk	Capital requirements under IRB approach
≤ 10 %	3,498	0	22
> 10 % ≤ 20 %	11,620	127	50
> 20 % ≤ 50 %	1,334	12	26
> 50 % ≤ 100 %	1,457	31	70
> 100 % ≤ 650 %	305	75	12
> 650 % ≤ 1250 %/capital deduction	693	474	219
Total	**18,907**	**719**	**399**

Figure 33

The portfolio presented in Figures 34 and 35 reflects the gross lending volume of leverage finance transactions, which is based on carrying amounts and does not include credit risk mitigation techniques, value adjustments or impairment losses. The loan commitments granted by DZ BANK in this business segment totaled €1.65 billion as at December 31, 2008. Of this total, loans amounting to €1.45 billion had already been utilized and outstanding loan commitments came to approximately €200 million. The leveraged finance portfolio was hedged by credit derivatives and guarantees worth €309 million at the reporting date. The exposures in the portfolio reveal a broad sectoral diversification and relate exclusively to companies based in the European Union. No significant impairment losses were recognized on the portfolio in 2008.

SECTORAL COMPOSITION OF THE LEVERAGED FINANCE PORTFOLIO BROKEN DOWN BY INDUSTRY OF UNDERLYING ASSET

€ million Asset classes	Chemical industry	Automotive industry	Engineering industry	Services	Other sectors	Total
On-balance exposure	512	116	120	303	396	1,447
Off-balance exposure	18	4	25	43	101	201
Total	**530**	**130**	**145**	**346**	**497**	**1,648**

Figure 34

GEOGRAPHICAL COMPOSITION OF THE LEVERAGED FINANCE PORTFOLIO BROKEN DOWN BY COUNTRY OF UNDERLYING ASSET

€ million Asset classes	Germany	Netherlands	Rest of EU	United States	Other	Total
On-balance exposure	392	485	357	101	112	1,447
Off-balance exposure	91	19	61	23	7	201
Total	**483**	**504**	**418**	**124**	**119**	**1,648**

Figure 35

5. RISKS ATTACHING TO INVESTMENTS HELD IN THE BANKING BOOK

5.1 MANAGING THE RISKS ATTACHING TO INVESTMENTS HELD IN THE BANKING BOOK

(Disclosure pursuant to section 332 SolvV)

The objectives and principles used to manage the risks attaching to investments in the banking book and the objectives pursued through such investments are described in the "Equity risk" chapter of the risk report contained in the group management report. The measurement and accounting methods applied to investments held in the banking book are explained below.

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 equity and recognized in the revaluation reserve. If the fair value of the investments is permanently impaired as defined in IAS 39.58 et seq., this impairment loss is recognized in income. Reversals of impairment losses previously recognized in income are taken to equity 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 owing to the risk of investing in shares of the company being measured rather than investing 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.

5.2 QUANTITATIVE INFORMATION ON INVESTMENTS HELD IN THE BANKING BOOK

(Disclosure pursuant to section 332 SolvV)

Notes on the regulatory disclosure of equity risks

In showing the equity risk of exposures, Tables 13b and 13c disclose the HGB carrying amounts and the current market value of these exposures. The recognition of unrealized gains and losses from investment exposures in the DZ BANK banking group's equity is shown in Table 13d and 13e. The sum total of these gains and losses is identical in both tables.

The regulatory report on investments held in the banking book covers conventional investments as well as securities, derivatives on investment exposures and investment funds that are not recognized under the so-called transparency method. The DZ BANK banking group recognizes the investment funds held in its banking book under the transparency method and breaks them down into the primary asset classes of the individual investment fund components.

Table 13b and 13c shows the amounts of investments in the banking book that are risk-weighted and, consequently, are not fully or proportionately consolidated or are subject to a capital deduction, 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 carrying amount corresponds to the book value determined under HGB accounting standards. Traded 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.

TABLE 13B AND 13C: MEASUREMENT OF EQUITY INSTRUMENTS

€ million Categories of equity instruments		Carrying amount	Fair value	Market value
Investments in banks		**156**	**152**	
of which:	exchange-traded	31	31	31
	not exchange-traded but part of a diversified investment portfolio	124	120	
	other	1	1	
Investments in finance companies		**72**	**65**	
of which:	exchange-traded	35	28	28
	not exchange-traded but part of a diversified investment portfolio	30	30	
	other	7	7	
Investments in insurance companies		**1,594**	**1,594**	
of which:	exchange-traded	0	0	0
	not exchange-traded but part of a diversified investment portfolio	1,594	1,594	
	other	0	0	
Investment funds held as investments in the banking book		**89**	**86**	
of which:	exchange-traded	6	6	6
	not exchange-traded but part of a diversified investment portfolio	82	79	
	other	1	1	
Investments in corporates		**242**	**234**	
of which:	exchange-traded	8	8	8
	not exchange-traded but part of a diversified investment portfolio	139	131	
	other	95	95	
Total		**2,153**	**2,131**	

Figure 36

TABLE 13D AND 13E: REALIZED AND UNREALIZED GAINS AND LOSSES ON EQUITY INSTRUMENTS UNDER HGB ACCOUNTING STANDARDS

€ million	Unrealized gains and losses on equity instruments		
Realized gains and losses from sales and processing	Total amount	Of which: amounts recognized in Tier 1 capital	Of which: amounts recognized in Tier 2 capital
7	-22	0	0

Figure 37

Table 13d and 13e shows the realized and unrealized gains and losses arising from the investments held in the banking book during the reporting period and in accordance with HGB accounting standards. The tables only include investments that are risk-weighted and, consequently, are not fully or proportionately consolidated or are subject to a capital deduction. The table also discloses the unrealized gains and losses that were recognized in the Group's regulatory capital as at December 31, 2008.

The contents of **Table 13f** (equity instruments with their capital adequacy requirements) are shown in Tables 2b to 2e. Consequently, no separate disclosure is provided.

6 MARKET PRICE RISK

6.1 MANAGEMENT OF MARKET PRICE RISK

(Disclosure pursuant to sections 322, 330 and 333 SolvV)

The following information can be found in the chapter entitled "Market price risk" in the risk report contained in the group management report:

- objectives and principles of market price risk management, including the management of interest-rate exposure in the banking book
- specific information on the Group's internal market price risk model
- specific information on calculating interest-rate exposure
- the type of interest-rate exposure in the banking book, the corresponding key assumptions and the frequency of risk measurement.

6.2 QUANTITATIVE INFORMATION ON MARKET PRICE RISK

(Disclosure pursuant to section 330 and section 333 (2) SolvV; Tables 10 and 14b of the use cases)

The information provided pursuant to section 330 SolvV (Table 10b on capital adequacy requirements for market price risk under the standardized method) is contained in Tables 3b to 3e. Consequently, no separate disclosure is provided.

In departure from **Table 14b** of the use cases, the interest-rate exposure in the banking book is calculated as the value at risk for the purposes of internal market price risk management. This meets the requirements of section 333 (2) SolvV, which states that the interest-rate exposure must be disclosed under the method used by the company's management to measure risk. The interest-rate exposure in the banking book of the DZ BANK banking group amounted to €11 million on December 31, 2008. This figure 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 the chapter entitled "Operational risk" in the risk report contained in the group management report. For the purposes of determining regulatory capital adequacy requirements, the potential loss arising from operational risk is estimated using the Standardized Approach specified by the Solvency Ordinance.

LIST OF FIGURES

IMPRINT

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This Risk Report is also available in German.
The German version of this Risk Report is the
original and authoritative version.