VI Risk report

1 Disclosure principles

In its capacity as the parent company in the DZ BANK Group, DZ BANK is publishing this half-year risk report in order to meet the transparency requirements for risks applicable to the DZ BANK Group as specified in **section 115** and **section 117 of the German Securities Trading Act (WpHG)** and **German Accounting Standard (GAS) 16** in conjunction with GAS 20. This report also implements the applicable international risk reporting requirements on the basis of **International Accounting Standard (IAS) 34**, although the legal standards applicable to annual reporting under the International Financial Reporting Standards (IFRS) – IFRS 7.31-42 (nature and extent of risks arising from financial instruments) and IFRS 17.121-132 (nature and extent of risks that arise from contracts within the scope of IFRS 17) – are taken into account.

In preparing this risk report, DZ BANK also takes account of the **recommended risk-related disclosures** issued by the Financial Stability Board, the European Banking Authority, and the European Securities and Markets Authority that are designed to improve the usefulness of the disclosures in the decision-making process.

The quantitative disclosures in this risk report are based on information that is presented to the Board of Managing Directors and used for internal management purposes (known as the **management approach**). The disclosure of this information, which is important for knowledgeable users, is designed to ensure that external reporting is useful when such users need to make decisions.

This half-year report only provides an overview of the **core elements of the risk management system** of the DZ BANK Group. The risk management system is presented in full in the risk report in the 2023 group management report ('2023 risk report'). Those disclosures are also applicable to the first half of this year, unless otherwise indicated in this report.

DZ BANK Group

2 Summary

2.1 Risk management system

2.1.1 Fundamental features of risk management

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

The DZ BANK Group has a **risk management system** that is updated on an ongoing basis in line with changes to the business and regulatory environment. The risk management system is designed to enable them to identify material risks – particularly risks to their ability to continue as a going concern – at an early stage and to initiate the necessary control measures. The system therefore incorporates various elements, including organizational arrangements, methods, IT systems, the limit system based on economic risk-bearing capacity, stress testing of all material risk types, and internal reporting.

The risk management system is based on the **risk appetite statement** – the fundamental document for determining risk appetite in the DZ BANK Group – and the specific details and additions in **risk strategies**, which are consistent with the business strategies and are approved by the Board of Managing Directors. The risk appetite statement contains risk policy guidelines and strategy requirements that are applicable throughout the group. It also sets out quantitative requirements reflecting risk appetite.

The DZ BANK Group strives to avoid **concentrations of risk** that are not the conscious result of business policy.

The methods used to **measure risk** are an integral element of the risk management system. They are regularly reviewed, refined where necessary, and adapted to changes in internal and external requirements. Risk model calculations are used to manage the DZ BANK Group.

The tools used for the purposes of risk management are also designed to enable the DZ BANK Group to respond appropriately to **significant market movements**. For example, the market data used for the centralized, model-driven measurement of market risk is updated every trading day and significant market movements therefore lead to an immediate increase in the volatility of risk factors and, consequently, changes in market risk. In addition, changes in credit ratings and correlations affect the modeled level of credit risk. Conservative crisis scenarios for short-term and medium-term liquidity are intended to ensure that liquidity risk management takes adequate account of market crises.

2.1.2 KPIs

Risks affecting liquidity and capital resources are managed on the basis of groupwide liquidity risk management and groupwide risk capital management. The purpose of **liquidity risk management** is to ensure adequate levels of liquidity reserves are in place in respect of risks arising from future payment obligations (liquidity adequacy). The aim of **risk capital management** is to ensure the availability of capital resources that are commensurate with the risks assumed (capital adequacy).

The key risk management figures used in respect of **liquidity** are the minimum liquidity surplus, the liquidity coverage ratio (LCR), and the net stable funding ratio (NSFR). The key risk management figures used in respect of **capital** are economic capital adequacy, the coverage ratio for the financial conglomerate, the regulatory capital ratios, the leverage ratio, and the metrics for the minimum requirement for own funds and eligible liabilities (MREL). These metrics are the MREL ratio as a percentage of risk-weighted assets, the MREL ratio as a percentage of the leverage ratio exposure, the subordinated MREL ratio as a percentage of risk-weighted assets, and the subordinated MREL ratio as a percentage of the leverage ratio exposure.

2.1.3 Management units and sectors

The DZ BANK Group is managed using the main types of risk, taking into account particular features relating to DZ BANK and its material subsidiaries (also referred to below as **management units**). Where a subsidiary acts as the parent company of a subgroup, the entire subgroup comprising the parent company plus its subsidiaries and second-tier subsidiaries is considered to be the management unit.

The management units represent the operating segments in the interim consolidated financial statements of the DZ BANK Group and form the core of the financial services group. All entities in the DZ BANK Group are integrated into the groupwide risk management system. Risk is managed groupwide on a consolidated basis.

The management units are deemed to be material in terms of their contribution to the DZ BANK Group's aggregate risk and are directly incorporated into the group's risk management system. The other subsidiaries and investee entities of DZ BANK are integrated into the risk management system either indirectly as part of equity investment risk or directly as part of other types of risk. This is decided for each of them annually.

The management units' subsidiaries and investees are also included in the DZ BANK Group's risk management system – indirectly via the majority-owned entities – with due regard to the minimum standards applicable throughout the group.

The insurance business operated at R+V differs in material respects from the other businesses of the DZ BANK Group. For example, actuarial risk is subject to factors that are different from those affecting the risks typically assumed in banking business. Furthermore, policyholders have a share in any gains or losses from investments in connection with life insurance, health insurance, and casualty insurance as specified under statutory or contractual arrangements, and this must be appropriately taken into account in the measurement of risk. Not least, the supervisory authorities also treat banking business and insurance business differently and this is reflected in differing regulatory regimes for banks and insurance companies.

Because of these circumstances, two sectors – Bank sector and Insurance sector – have been created within the DZ BANK Group for the purposes of economic risk management. The management units are assigned to these sectors as follows:

Bank sector:
- DZ BANK
- BSH
- DZ HYP
- DZ PRIVATBANK
- TeamBank
- UMH
- VR Smart Finanz

Insurance sector:
- R+V

DZ BANK and **DZ HYP** have elected to apply the **liquidity waiver** pursuant to article 8 of the Capital Requirements Regulation (CRR). The waiver enables the LCR and NSFR to be applied at the level of a single liquidity subgroup consisting of DZ BANK and DZ HYP. This means that it is no longer necessary to comply with the regulatory liquidity requirements at the level of the two individual institutions.

Furthermore, **DZ HYP** has applied the **capital waiver** pursuant to section 2a (1), (2), and (5) of the German Banking Act (KWG) in conjunction with article 7 (1) CRR, under which – provided certain conditions are met – regulatory supervision at individual bank level may be replaced by supervision of the entire banking group.

The entities in the DZ BANK Group are exposed to a number of risk factors. These include developments concerning the entity's environment that may have an adverse impact on the DZ BANK Group's future financial position, liquidity situation, or financial performance. Risk factors either affect multiple types of risk (general risk factors) or are limited to specific types of risk (specific risk factors). Disclosures on **general risk factors** can be found in chapter VI.3. There were no new general risk factors in the first half of 2024. The **specific risk factors** are shown in the risk-type-specific chapters of the 2023 risk report. The disclosures there continue to apply unchanged to the current year.

The main features of the directly managed **risks** and their significance for the operating segments in the Bank and Insurance sectors were shown in Fig. VII.1 and Fig. VII.2 respectively of the 2023 risk report. The risks shown there correspond to the outcome of the risk inventory check and reflect the risks that are material to the DZ BANK Group. This presentation also applies to the first six months of the current year.

2.2 Risk profile and risk appetite

The DZ BANK Group's **business model** and the associated business models used by the management units determine the risk profile.

The values for the measurement of **liquidity and capital adequacy** presented in Fig. VI.1 reflect the liquidity risks and the risks backed by capital assumed by the DZ BANK Group. They illustrate the **risk profile** of the DZ BANK Group. The values for these KPIs are compared against the (internal) threshold values specified by the Board of Managing Directors of DZ BANK – also referred to below as **risk appetite** – and against the (external) minimum targets laid down by the supervisory authorities. The internal threshold values consist of minimum thresholds and observation thresholds.

These observation thresholds mark the transition point from a comfortable risk situation to a state of heightened alert, whereas the minimum thresholds represent a mandatory internal limit that must be maintained. Both thresholds are elements of the risk appetite statement. The internal minimum thresholds in the risk appetite statement largely represent the warning thresholds in the recovery plan. They are defined by the Board of Managing Directors of DZ BANK and presented to the Risk Committee of DZ BANK's Supervisory Board for acknowledgement. Depending on the situation and significance, the Chief Risk Officer, the Chief Financial Officer, the relevant committee of the Board of Managing Directors, or the full Board of Managing Directors may initiate corrective measures if observation thresholds are crossed. If the minimum thresholds are crossed, the escalation mechanisms set out in the recovery plan are triggered.

2.3 Solvency and risk-bearing capacity

The **solvency** of DZ BANK and its subsidiaries was never in jeopardy at any point during the reporting period. They also complied with regulatory requirements for liquidity adequacy. By holding ample liquidity reserves, the group aims to be able to protect its liquidity against any threats in the event of a crisis.

The DZ BANK Group remained within its economic **risk-bearing capacity** in the first half of 2024 and also complied with regulatory requirements for capital adequacy on every reporting date.

3 General risk factors

In the first half of 2024, the general risk factors that were applicable to the DZ BANK Group were essentially unchanged compared with 2023.

FIG. VI.1 – LIQUIDITY AND CAPITAL ADEQUACY KPIS

	Measured figure		External minimum target		Internal minimum threshold		Internal observation threshold	
	Jun. 30, 2024	Dec. 31, 2023	2024	2023	2024	2023	2024	2023
LIQUIDITY ADEQUACY								
DZ BANK Group (economic perspective)								
Minimum liquidity surplus (€ billion)[1]	18.9	18.5	0.0	0.0	4.0	4.0	5.0	5.0
DZ BANK banking group (normative perspective)								
Liquidity coverage ratio (LCR, percent)[2]	142.9	145.8	100.0	100.0	112.5	110.0	125.0	120.0
Net stable funding ratio (NSFR, percent)[3]	125.4	126.5	100.0	100.0	106.0	106.0	110.0	107.0
CAPITAL ADEQUACY								
DZ BANK Group (economic perspective)								
Economic capital adequacy (percent)[4]	197.6	209.1	100.0	100.0	120.0	120.0	140.0	140.0
DZ BANK financial conglomerate (normative perspective)								
Coverage ratio (percent)[5]	136.5	152.5	100.0	100.0	113.0	113.0	123.0	121.0
DZ BANK banking group (normative perspective)[6]								
Common equity Tier 1 capital ratio (percent)	15.7	15.5	10.0	9.8	11.8	11.3	13.0	12.5
Tier 1 capital ratio (percent)	17.8	17.7	11.8	11.7	13.5	13.3	14.8	14.3
Total capital ratio (percent)	20.2	20.1	14.3	14.1	16.0	15.8	17.3	16.8
Leverage ratio (percent)	6.2	6.2	3.0	3.0	4.0	4.0	4.3	4.3
MREL ratio as a percentage of risk-weighted assets	41.1	42.4	27.0	25.1	28.4	26.8	28.7	27.1
MREL ratio as a percentage of the leverage ratio exposure	14.3	14.9	9.5	7.3	9.9	9.7	10.2	10.0
Subordinated MREL ratio as a percentage of risk-weighted assets	30.6	31.0	27.0	23.8	28.4	26.6	28.7	27.1
Subordinated MREL ratio as a percentage of the leverage ratio exposure	10.6	10.9	8.4	7.1	8.8	9.7	9.1	10.0

1 For details, see chapter VI.4.1.2.
2 For details, see chapter VI.4.2.1.
3 For details, see chapter VI.4.2.2.
4 For details, see chapter VI.5.2.
5 For details, see chapter VI.5.3.1.
6 For details, see chapter VI.5.3.2.

4 Liquidity adequacy

4.1 Economic perspective

4.1.1 Quantitative variables in liquidity risk

Liquid securities

The available liquid securities have a significant influence on the level of the minimum liquidity surplus. Liquid securities are a component of the **counterbalancing capacity** and are largely held in the portfolios managed by DZ BANK's Group Treasury and Capital Markets Trading divisions or in the portfolios of the treasury units at the subsidiaries of DZ BANK. Only bearer bonds are counted as liquid securities.

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

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

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

Fig. VI.2 shows the liquidity value of the liquid securities that would result from secured funding or if the securities were sold. The total liquidity value as at June 30, 2024 amounted to €47.7 billion (December 31, 2023: €37.3 billion). The increase in liquid securities was mainly due to an increase in the DZ BANK Group's own portfolio of securities that are eligible for GC Pooling and as collateral for central bank loans as well as to a stronger increase in reverse repo transactions than in repos.

FIG. VI.2 – LIQUID SECURITIES

€ billion	Jun. 30, 2024	Dec. 31, 2023
Liquid securities eligible for GC Pooling (ECB Basket)[1]	**22.2**	**15.8**
Securities in own portfolio	25.7	20.5
Securities received as collateral	9.2	5.9
Securities provided as collateral	-12.7	-10.6
Liquid securities eligible as collateral for central bank loans	**21.2**	**17.9**
Securities in own portfolio	20.0	18.0
Securities received as collateral	3.9	3.5
Securities provided as collateral	-2.8	-3.6
Other liquid securities	**4.3**	**3.7**
Securities in own portfolio	3.4	3.3
Securities received as collateral	1.0	0.6
Securities provided as collateral	-0.1	-0.2
Total	**47.7**	**37.3**
Securities in own portfolio	49.1	41.8
Securities received as collateral	14.1	9.9
Securities provided as collateral	-15.5	-14.4

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

Unsecured short- and medium-term funding

Other than liquid securities, the main factors determining the minimum liquidity surplus are the availability and composition of the sources of funding.

The DZ BANK Group has a highly diversified funding base for operational liquidity. A considerable portion is accounted for by money market activities resulting from the cash-pooling function with the **local cooperative banks**. Under these arrangements, the cooperative banks can invest excess liquidity with DZ BANK at any time. Conversely, if the cooperative banks need liquidity, they can obtain it from DZ BANK. Overall, this regularly results in a liquidity surplus, which provides one of the main pillars of short-term funding in the unsecured money markets.

Corporate customers and **institutional customers** are another important source of funding for covering operational liquidity requirements. In the context of liquidity risk, corporate customers are those customers that are not banks and are not classified as institutional customers.

For funding purposes, the management units also issue **money market products based on debt certificates** under a standardized groupwide multi-issuer euro commercial paper program through the offices and branches in Frankfurt am Main, New York, Hong Kong, London, and Luxembourg. DZ BANK also runs a US-dollardenominated commercial paper program for Frankfurt am Main. Key repo and securities lending activities, together with the collateral management process, are managed centrally in DZ BANK's Group Treasury division.

The volume of funding on the **interbank market** is low; such funding is not strategically important to the DZ BANK Group.

The range of funding sources in the unsecured money markets is shown in Fig. VI.3. The changes in the composition of the sources of funding compared with December 31, 2023 arose because customers and investors were more focused on diversification than in the previous year due to the interest-rate situation. The changes included reallocations from current account deposits to alternative financial products available in the money market with terms of up to one year, which were made in light of ECB monetary policy measures. Investors also increasingly shifted their focus to reallocating short-term financial products to longer-term financial products on offer in the money market.

Further information on funding can be found in chapter II.5 of the business report.

FIG. VI.3 – UNSECURED SHORT-TERM AND MEDIUM-TERM FUNDING

€ billion	Jun. 30, 2024	Dec. 31, 2023
Deposits	**96.3**	99.7
Deposits of local cooperative banks	59.7	59.7
Current account deposits of other customers	36.6	40.0
Money market borrowing	**78.5**	59.8
Central banks, interbank, and customer banks	11.6	7.8
Corporate customers and institutional customers	40.4	36.2
Certificates of deposit/commercial paper	26.6	15.8

4.1.2 Risk position

Economic liquidity adequacy is assured if none of the four stress scenarios with defined limits exhibit a negative value for the key risk indicator 'minimum liquidity surplus'. Fig. VI.4 shows the results of measuring liquidity risk. The results are based on a daily calculation and comparison of forward cash exposure and counterbalancing capacity. The values reported are the values that occur on the day on which the liquidity surplus calculated over the forecast period of 1 year is at its lowest point.

FIG. VI.4 – LIQUIDITY UP TO 1 YEAR IN THE STRESS SCENARIOS WITH DEFINED LIMITS: MINIMUM LIQUIDITY SURPLUSES

	Forward cash exposure		Counterbalancing capacity		Minimum liquidity surplus[1]	
€ billion	Jun. 30, 2024	Dec. 31, 2023	Jun. 30, 2024	Dec. 31, 2023	Jun. 30, 2024	Dec. 31, 2023
Downgrading	-55.1	-43.6	109.0	90.6	53.9	46.9
Corporate crisis	-59.6	-45.6	78.5	64.1	18.9	18.5
Market crisis	-67.2	-47.9	96.5	78.9	29.3	31.0
Combination crisis	-65.5	-47.4	88.4	72.1	22.9	24.7

1 The values with an orange background are the minimum liquidity surplus in the squeeze scenario.

The increase in the forward cash exposure and in the counterbalancing capacity mainly resulted from the shift in the day with the minimum liquidity surplus. This day had been in the ninth month of the one-year forecast period as at December 31, 2023, whereas it had moved to the end of the forecast period by the reporting date.

The liquidity risk value measured as at June 30, 2024 for the stress scenario with defined limits with the lowest minimum liquidity surplus (squeeze scenario) was €18.9 billion (December 31, 2023: €18.5 billion).

The minimum liquidity surplus as at June 30, 2024 was positive in the stress scenarios with defined limits that were determined on the basis of risk appetite. This is due to the fact that the counterbalancing capacity was above the cumulative cash outflows on each day of the defined forecast period in every scenario, which indicates that the cash outflows assumed to take place in a crisis could be comfortably covered. The limits for the minimum liquidity surplus were adhered to for all management levels.

The rise in interest rates during the first half of 2024 led to significant movements in the market for interest-rate derivatives and to funding changes, making the minimum liquidity surplus more volatile.

As at the reporting date, the minimum liquidity surplus exceeded the **external minimum target** laid down by the supervisory authorities, the **internal minimum threshold**, and the **internal observation threshold**. The target/threshold values are shown in Fig. VI.1.

4.2 Normative perspective

4.2.1 Liquidity coverage ratio

The liquidity coverage ratio has a short-term focus and is intended to ensure that institutions can withstand a liquidity stress scenario lasting 30 days. This KPI is defined as the ratio of available liquid assets (liquidity buffer) to total net cash outflows in defined stress conditions over the next 30 days. DZ BANK reports the LCR of the liquidity subgroup and that of the banking group, calculated in accordance with the CRR in conjunction with Commission Delegated Regulation (EU) 2015/61, to the supervisory authority on a monthly basis.

The LCR figure for the DZ BANK banking group can be found in Fig. VI.5.

FIG. VI.5 – LIQUIDITY COVERAGE RATIO AND ITS COMPONENTS

	Jun. 30, 2024	Dec. 31, 2023
Total liquidity buffer (€ billion)	136.4	125.6
Total net liquidity outflows (€ billion)	95.4	86.1
LCR (percent)	**142.9**	**145.8**

The decrease in the LCR from 145.8 percent as at December 31, 2023 to 142.9 percent as at June 30, 2024 resulted from the greater percentage increase in the net liquidity outflows compared with the relative increase in the liquidity buffer despite the rise in excess liquidity cover (calculated by deducting the net liquidity outflows from the liquidity buffer). As the LCR is more sensitive to changes in liquidity outflows than to changes in the liquidity buffer, the two opposing effects resulted in an overall reduction in the KPI.

The growth of the liquidity buffer was mainly due to a larger volume of unsecured funding, primarily deposits from the Cooperative Financial Network and long-term own issues. The rise in the weighted net liquidity outflows was less pronounced than the related increase in the liquidity buffer, firstly because deposits from the Cooperative Financial Network are only included with an outflow factor of 25 percent rather than in full. Secondly, issues are only included in the liquidity outflows in the last 30 days before their maturity date, not immediately.

As at the reporting date, the **external minimum target** laid down by the supervisory authorities, the **internal minimum threshold**, and the **internal observation threshold** were exceeded. The target/threshold values are shown in Fig. VI.1.

4.2.2 Net stable funding ratio

The net stable funding ratio has a long-term focus and is intended to identify mismatches between the maturity structures of assets-side and liabilities-side business. Its longer-term perspective means that it complements the LCR, which has a short-term focus.

The NSFR is the amount of available stable funding (equity and liabilities) relative to the amount of required stable funding (assets-side business). The funding sources are weighted according to their degree of stability and assets are weighted according to their degree of liquidity based on factors defined by the supervisory authority. Excess cover in relation to the NSFR is the difference between the available stable funding and the required stable funding.

The NSFR calculated for the DZ BANK banking group is presented in Fig. VI.6.

FIG. VI.6 – NET STABLE FUNDING RATIO AND ITS COMPONENTS

	Jun. 30, 2024	Dec. 31, 2023
Available stable funding (weighted equity and liabilities; € billion)	290.4	287.9
Required stable funding (weighted assets; € billion)	231.5	227.6
Excess cover/shortfall (€ billion)[1]	58.9	60.3
NSFR (percent)	**125.4**	**126.5**

1 Excess cover = positive values, shortfall = negative values.

As at the reporting date, the NSFR was above the **internal minimum threshold** and the **internal observation threshold**. The ratio also exceeded the **external minimum target** laid down by the supervisory authorities. The target/threshold values are shown in Fig. VI.1.

5 Capital adequacy

5.1 Remeasurement of R+V's transitional measure on technical provisions

The transitional measure on technical provisions is a time-limited regulatory measure designed to make it easier for insurance companies to transition from Solvency I to the current regulatory regime, Solvency II. Having obtained permission to do so from BaFin, R+V has been using the transitional measure on technical provisions for individual personal insurance companies since 2020. Use of this measure means that additional own funds can be taken into account, which – all other things being equal – results in an increase in both economic and regulatory capital adequacy.

In view of the rise in interest rates, BaFin requested, at the start of 2024, that the affected insurance companies remeasure their transitional measure on technical provisions. The remeasurement carried out for R+V based on figures as at December 31, 2023 produced a value of zero for the transitional measure on technical provisions. As instructed by BaFin, DZ BANK has been using this zero value to calculate economic and regulatory capital adequacy since June 30, 2024. This resulted in a reduction compared with the end of 2023 both in the DZ BANK Group's economic capital adequacy (see chapter VI.5.2) and in the coverage ratios of the DZ BANK financial conglomerate (see chapter VI.5.3.1) and of the R+V Versicherung AG insurance group (see chapter VI.5.3.3).

5.2 Economic perspective

Capital adequacy is considered from both an economic and a normative perspective. The economic perspective is an internally defined management perspective aimed at ensuring that all of the DZ BANK Group's material capital risks – determined using internal risk measurement methods on the assumption that the group will continue to operate as a going concern – are fully backed by capital plus an internally specified management buffer. The risk measurement methods used are designed to ensure that risk capital management is integrated across the group.

Economic capital adequacy is calculated as the ratio of available internal capital to the economic aggregate risk of the DZ BANK Group. The economic aggregate risk is calculated as the sum of the aggregate risk values of the Bank and Insurance sectors, comprising the risk capital requirement of the Bank sector, the overall solvency requirement of the Insurance sector, and a central economic capital buffer. Economic capital adequacy of 100 percent or higher indicates that the DZ BANK Group has economic risk-bearing capacity.

The annual recalculation of the overall solvency requirement took place as at December 31, 2023 owing to scheduled changes to the parameters for the risk measurement procedures carried out in the second quarter of 2024 for the Insurance sector on the basis of R+V's 2023 consolidated financial statements and the updating of actuarial assumptions. The recalculation reflects updated measurements of insurance liabilities based on annual actuarial analyses and updates to parameters in the risk capital calculation. Because of the complexity and the amount of time involved, the parameters are not completely updated in the in-year calculation and an appropriate projection is made.

The recalculation led to changes in the available internal capital, key risk indicators, and economic capital adequacy. The figures as at December 31, 2023 given in this risk report have been restated accordingly and are not directly comparable with the figures in the 2023 risk report.

The DZ BANK Group's **available internal capital** as at June 30, 2024 stood at €28,566 million. The comparable figure as at December 31, 2023 was €31,720 million. The decrease in available internal capital compared with the end of 2023 was largely attributable to the remeasurement of the transitional measure on technical provisions. The inclusion of the resulting value of zero for the transitional measure on technical provisions served to increase insurance liabilities in the life insurance business and thereby decrease the surplus of assets over liabilities on the Solvency II balance sheet in the Insurance sector. Remeasuring the transitional measure on technical provisions had an overall impact of €3.6 billion on the DZ BANK Group's available internal capital.

The **limit** derived from the available internal capital was set at €21,191 million for 2024 (2023: €19,698 million).

As at June 30, 2024, **aggregate risk** was calculated at €14,457 million. The comparable figure as at December 31, 2023 was €15,170 million. The decrease was primarily driven by lower business risk, credit risk, and market risk in the Bank sector.

As at June 30, 2024, the **economic capital adequacy ratio** for the DZ BANK Group was calculated at 197.6 percent. The comparable figure as at December 31, 2023 was 209.1 percent. The decrease in available internal capital compared with December 31, 2023 was sharper than the decrease in aggregate risk . This led to a decline in economic capital adequacy.

As at the reporting date, the economic capital adequacy ratio was above the **external minimum target**, the **internal minimum threshold**, and the **internal observation threshold**. The target/threshold values are shown in Fig. VI.1.

Fig. VI.7 provides an overview of economic capital adequacy and its components.

FIG. VI.7 – ECONOMIC CAPITAL ADEQUACY OF THE DZ BANK GROUP

	Jun. 30, 2024	Dec. 31, 2023
Available internal capital (€ million)[1]	28,566	31,720
Limit (€ million)	21,191	19,698
Aggregate risk (€ million)[1]	14,457	15,170
Economic capital adequacy (percent)[1]	**197.6**	**209.1**

1 Value as at December 31, 2023 after recalculation of R+V's overall solvency requirement. Different values were stated in the 2023 risk report.

The risk capital requirement (Bank sector) and the overall solvency requirement (Insurance sector) also contain any **decentralized capital buffer requirement**. To simplify matters, only the terms 'risk capital requirement' and 'overall solvency requirement' will be used in the remainder of this risk report. These include the decentralized capital buffer requirement.

The limits and risk capital requirements for the **Bank sector**, broken down by risk type, are shown in Fig. VI.8.

FIG. VI.8 – LIMITS AND RISK CAPITAL REQUIREMENTS IN THE BANK SECTOR

	Limit		Risk capital requirement	
€ million	Jun. 30, 2024	Dec. 31, 2023	Jun. 30, 2024	Dec. 31, 2023
Credit risk	4,994	4,988	3,672	3,971
Equity investment risk	1,364	1,281	795	998
Market risk	7,120	6,470	3,780	4,169
Technical risk of a home savings and loan company[1]	820	820	676	730
Business risk[2]	500	450	–	363
Operational risk	1,157	1,148	989	978
Total (after diversification)	**14,941**	**14,218**	**9,303**	**10,471**

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

Fig. VI.9 sets out the limits and overall solvency requirements for the **Insurance sector**, broken down by risk type, and includes policyholder participation features. The definition of the limits and determination of overall solvency requirements take into account the ability to offset deferred taxes against losses (which arises where deferred tax liabilities can be eliminated in the loss scenario). Diversification effects between the risk types are also taken into consideration. Owing to these effects of correlation, the overall solvency requirement and limit for each risk type are not cumulative.

In addition to the figures shown in Fig. VI.8 and Fig. VI.9, the aggregate risk includes a **centralized capital buffer requirement across all types of risk**, which was calculated at €476 million as at June 30, 2024 (December 31, 2023: €391 million). The corresponding **limit** was €550 million (December 31, 2023: €680 million). The increase in the centralized capital buffer requirement during the first half of 2024 was predominantly due to validation of the model used for the DZ BANK Group's equity investment risk. The limit was adjusted in line with the operational planning for 2024.

FIG. VI.9 – LIMITS AND OVERALL SOLVENCY REQUIREMENTS IN THE INSURANCE SECTOR

	Limit		Overall solvency requirement	
€ million	Jun. 30, 2024	Dec. 31, 2023	Jun. 30, 2024	Dec. 31, 2023[1]
Life actuarial risk[2]	1,200	1,060	917	946
Health actuarial risk	360	285	233	255
Non-life actuarial risk	2,120	1,900	1,767	1,823
Market risk	4,150	3,695	3,669	3,580
Counterparty default risk	325	245	232	219
Operational risk	800	700	699	627
Risks from entities in other financial sectors	265	225	217	217
Total (after diversification)	**5,700**	**4,800**	**4,678**	**4,308**

1 Values after recalculation of the overall solvency requirement. Different values were stated in the 2023 risk report.
2 Reputational risk is implicitly included in the overall solvency requirement for life actuarial risk (lapse risk).

5.3 Normative perspective

5.3.1 DZ BANK financial conglomerate

The DZ BANK financial conglomerate comprises the DZ BANK banking group and the R+V Versicherung AG insurance group.

The German Supervision of Financial Conglomerates Act (FKAG) forms the main legal basis for the supervision of the DZ BANK financial conglomerate. The calculation methodology for the coverage ratio is taken from Commission Delegated Regulation (EU) No. 342/2014 in conjunction with article 49 (1) CRR. The financial conglomerate coverage ratio is the ratio between the total of own funds in the financial conglomerate and the total of solvency requirements for the conglomerate. The resulting ratio must be at least 100.0 percent.

The changes in the coverage ratio and in the own funds and solvency requirements of the DZ BANK financial conglomerate are shown in Fig. VI.10.

FIG. VI.10 – REGULATORY CAPITAL ADEQUACY OF THE DZ BANK FINANCIAL CONGLOMERATE[1]

	Jun. 30, 2024	Dec. 31, 2023[2]
Own funds (€ million)	36,063	39,195
Solvency requirements (€ million)	26,412	25,694
Coverage ratio (percent)	**136.5**	**152.5**

1 The values for the DZ BANK banking group included in the calculations were determined in accordance with the CRR transitional guidance.
2 Final figures. Preliminary figures were stated in the 2023 risk report.

The fall in the coverage ratio calculated for the DZ BANK financial conglomerate from 152.5 percent as at December 31, 2023 to 136.5 percent as at June 30, 2024 was attributable, in particular, to the decrease in own funds resulting from the reduction to zero of the transitional measure on technical provisions. Further details can be found in chapter VI.5.1. Other effects that led to this change in the coverage ratio were attributable to the DZ BANK banking group and the R+V Versicherung AG insurance group (see also chapter VI.5.3.2 and chapter VI.5.3.3).

The final coverage ratio calculated for the financial conglomerate as at June 30, 2024 was higher than the **external minimum target** laid down by the supervisory authorities, the **internal minimum threshold**, and the **internal observation threshold**. The target/threshold values are shown in Fig. VI.1.

5.3.2 DZ BANK banking group

Regulatory capital ratios

Capital adequacy from a normative perspective serves to ensure that the regulatory capital requirements and rules on capital are met. As part of risk-based banking supervision, it is intended to ensure that a bank's exposures are backed by capital in a volume that is as appropriate as possible for the risk involved. Capital adequacy is defined as meeting the minimum requirements for the common equity Tier 1 capital ratio, the Tier 1 capital ratio, and the total capital ratio.

For all three ratios, the relevant items of capital are calculated using the CRR rules and compared with the total risk exposure determined under the CRR. If the ratios calculated in this way exceed the minimum regulatory ratios, the requirements are deemed met.

The regulatory **own funds** of the DZ BANK banking group as at June 30, 2024 determined in accordance with the CRR transitional guidance amounted to a total of €31,651 million (December 31, 2023: €30,647 million). This equated to a rise in own funds of €1,004 million compared with the end of 2023 that mainly resulted from an increase in common equity Tier 1 capital of €953 million.

The increase in **common equity Tier 1 capital** was primarily due to the interim profit of €655 million as at the reporting date, which was calculated taking account of all regulatory dividends and charges and was approved in accordance with Decision (EU) 2015/656 of the ECB. Moreover, switching to the dividend actually distributed for 2023 in May 2024 raised the retained earnings by €332 million because the dividend of €780 million as forecast for 2023 on the basis of regulatory requirements in accordance with Decision (EU) 2015/656 of the ECB was previously taken into account.

The rise of €4,260 million in **risk-weighted assets** from €152,148 million as at December 31, 2023 to €156,408 million as at June 30, 2024 was largely attributable to three effects:

– Risk-weighted assets for credit risk (including long-term equity investments) went up by €2,225 million. This was mainly due, on the one hand, to the higher measurement, using the equity method, of DZ BANK's long-term equity investment in R+V and, on the other hand, to the lower limit for risk-weighted assets under the Standardized Approach to credit risk being applied to the rating systems for investment fund ratings and guaranteed lending business for the first time.
– The €1,861 million rise in risk-weighted assets for operational risk resulted from the improvement in earnings for 2023 (calculated in accordance with IFRS) compared with the corresponding earnings for 2022.
– Furthermore, the risk-weighted assets determined for market risk advanced by €174 million.

The countervailing changes in capital and in risk-weighted assets largely offset each other, which meant that the **capital ratios** as at June 30, 2024 were on a par with their levels at the end of 2023.

Fig. VI.11 provides an overview of the DZ BANK banking group's regulatory capital ratios.

Regulatory minimum capital requirements specified by the SREP

The minimum capital requirements that the DZ BANK banking group has to comply with in 2024 under the Supervisory Review and Evaluation Process for Basel Pillar 2 (SREP) comprise those components of Basel Pillar 1 laid down as mandatory by law and those individually specified by the banking supervisor.

Institution-specific requirements under the additional capital requirements in Pillar 2, determined in the outcome of the SREP conducted for the DZ BANK banking group in 2023, also have to be satisfied. In this process, the banking supervisor specifies a mandatory add-on (**Pillar 2 requirement**) that is factored into the external minimum targets for the capital ratios and into the basis of calculation used to determine the threshold for the maximum distributable amount (MDA). Distributions are restricted if capital falls below the MDA threshold.

FIG. VI.11 – REGULATORY CAPITAL RATIOS[1]

	Jun. 30, 2024	Dec. 31, 2023
Capital		
Common equity Tier 1 capital (€ million)	24,585	23,632
Additional Tier 1 capital (€ million)	3,293	3,293
Tier 1 capital (€ million)	**27,878**	**26,925**
Total Tier 2 capital (€ million)	3,773	3,722
Own funds (€ million)	**31,651**	**30,647**
Risk-weighted assets		
Credit risk including long-term equity investments (€ million)	140,473	138,249
Market risk (€ million)	4,856	4,683
Operational risk (€ million)	11,078	9,217
Total (€ million)	**156,408**	**152,148**
Capital ratios		
Common equity Tier 1 capital ratio (percent)	15.7	15.5
Tier 1 capital ratio (percent)	17.8	17.7
Total capital ratio (percent)	20.2	20.1

1 In accordance with the CRR transitional guidance.

The mandatory minimum capital requirements relevant to the DZ BANK banking group under the SREP, and their components, are shown in Fig. VI.12.

As at the reporting date, the minimum capital requirements for common equity Tier 1 capital that are applicable to 2024 were 0.11 percentage points higher than at the end of 2023. The main reason for this was an increase in the Pillar 2 requirements for non-performing loan exposures from January 1, 2024 onward; this mandatory add-on has had to be satisfied entirely with common equity Tier 1 capital since the start of this year.

Compliance with the minimum capital requirements

The **internal threshold values** and **external minimum targets** applicable at the level of the DZ BANK banking group for the common equity Tier 1 capital ratio, the Tier 1 capital ratio, and the total capital ratio were exceeded as at June 30, 2024. The target/threshold values are shown in Fig. VI.1.

Leverage ratio

The **leverage ratio** shows the ratio of a bank's Tier 1 capital to its total exposure. In contrast to credit-risk-related capital requirements for which the assumptions are derived from models, the individual exposures in the calculation of the leverage ratio are not allocated their own risk weight but are generally included in the total exposure without being weighted.

This ratio, determined in accordance with the CRR transitional guidance, stood at 6.2 percent as at the reporting date and was therefore unchanged compared with December 31, 2023.

The lower limits applicable to the DZ BANK banking group in respect of the regulatory capital ratios – the **external minimum target**, the **internal minimum threshold**, and the **internal observation threshold** – were all exceeded as at the reporting date. The target/threshold values are shown in Fig. VI.1.

FIG. VI.12 – REGULATORY MINIMUM CAPITAL REQUIREMENTS OF THE DZ BANK BANKING GROUP

Percent	2024	2023
Minimum requirement for common equity Tier 1 capital	4.50	4.50
Additional Pillar 2 capital requirement	1.14	1.02
Capital conservation buffer	2.50	2.50
Countercyclical capital buffer[1]	0.72	0.69
Systemic risk buffer[1]	0.15	0.19
O-SII capital buffer	1.00	1.00
Mandatory minimum requirement for common equity Tier 1 capital	**10.01**	**9.90**
Minimum requirement for additional Tier 1 capital[2]	1.50	1.50
Additional Pillar 2 capital requirement[2]	0.32	0.34
Mandatory minimum requirement for Tier 1 capital	**11.83**	**11.75**
Minimum requirement for Tier 2 capital[2]	2.00	2.00
Additional Pillar 2 capital requirement[2]	0.43	0.46
Mandatory minimum requirement for total capital	**14.26**	**14.20**

Not available

1 The values for the countercyclical capital buffer and the systemic risk buffer are recalculated at each reporting date. Unlike the other reported values, which apply to the entire financial year, the countercyclical capital buffers shown for 2024 and 2023 relate solely to the reporting dates.
2 The minimum requirement and additional capital requirement can also be satisfied with own funds from higher categories.

MREL ratio

The DZ BANK banking group's **MREL ratio as a percentage of risk-weighted assets** is the ratio of the total of the regulatory own funds of the DZ BANK banking group and the eligible external MREL liabilities of DZ BANK to the total risk exposure amount (risk-weighted assets) of the DZ BANK banking group. This ratio was 41.1 percent as at June 30, 2024 (December 31, 2023: 42.4 percent).

The **MREL ratio as a percentage of the leverage ratio exposure** is the ratio of the total of the regulatory own funds of the DZ BANK banking group and the eligible external, subordinated MREL liabilities of DZ BANK to the leverage ratio exposure of the DZ BANK banking group. This ratio was 14.3 percent as at June 30, 2024 (December 31, 2023: 14.9 percent).

The **external minimum targets**, **internal minimum thresholds** , and **internal observation thresholds** applicable to the two MREL ratios were exceeded as at June 30, 2024. The target/threshold values and measured values are shown in Fig. VI.1.

Subordinated MREL ratios

The **subordinated MREL ratio as a percentage of risk-weighted assets** is the ratio of the total of the regulatory own funds of the DZ BANK banking group and the eligible external, subordinated MREL liabilities of DZ BANK to the total risk exposure amount (risk-weighted assets) of the DZ BANK banking group. This ratio was 30.6 percent as at June 30, 2024 (December 31, 2023: 31.0 percent).

The **subordinated MREL ratio as a percentage of the leverage ratio exposure** is the ratio of the total of the regulatory own funds of the DZ BANK banking group and the eligible external, subordinated MREL liabilities of DZ BANK to the leverage ratio exposure of the DZ BANK banking group. This ratio was 10.6 percent as at June 30, 2024 (December 31, 2023: 10.9 percent).

The **external minimum targets**, **internal minimum thresholds**, and **internal observation thresholds** applicable to the two subordinated MREL ratios were exceeded as at June 30, 2024. The target/threshold values and measured values are shown in Fig. VI.1.

5.3.3 R+V Versicherung AG insurance group

The regulatory solvency requirements for insurance companies and insurance groups provide a means of evaluating the overall risk position in the R+V Versicherung AG insurance group. The recalculation of the transitional measure on technical provisions, requested by BaFin with effect from June 30, 2024, has an impact on Basel Pillar 1. Further details can be found in chapter VI.5.1.

The R+V Versicherung AG insurance group met the solvency requirements under Solvency II as at June 30, 2024.

The projections applied in the internal planning show that the R+V Versicherung AG insurance group's solvency ratio will continue to exceed the solvency requirement as at December 31, 2024.

Bank sector

6 Credit risk

6.1 Lending volume in the entire credit portfolio

6.1.1 Asset class structure of the credit portfolio

The total lending volume rose by 1 percent in the first half of the year, from €471.0 billion as at December 31, 2023 to €477.5 billion as at June 30, 2024. The rise in the lending volume was mainly due to an increase in volume in the 'public sector' asset class, which went up by €5.0 billion compared with the end of 2023. DZ BANK made a particularly large contribution to this increase, which was driven by reallocations to bonds, especially from German federal states and other European countries. Furthermore, asset-backed securities (ABSs) and asset-backed commercial paper (ABCPs) went up by €2.2 billion, corporates by €0.8 billion, and asset-based lending/project finance by €0.4 billion. However, the lending volume in the lending business with companies within the Cooperative Financial Network ('entities within the Cooperative Financial Network' asset class) decreased by €3.0 billion.

As at June 30, 2024, a significant proportion (40 percent) of the lending volume was concentrated in the financial sector (December 31, 2023: 41 percent). The borrowers in this customer segment comprise entities within the Cooperative Financial Network and the 'financials' asset class (banks from other sectors of the banking industry and other financial institutions).

Fig. VI.13 shows the breakdown of the credit portfolio by asset class.

6.1.2 Geographical structure of the credit portfolio (excluding Germany)

Fig. VI.14 shows the geographical distribution of the credit portfolio by country group. Borrowers based in Germany are not included in this breakdown. The relevant country for the assignment to a country group is the one in which the economic risk arises. As at June 30, 2024, 67 percent of the total lending outside Germany was concentrated in Europe, as had been the case at the end of 2023.

FIG. VI.13 – BANK SECTOR: LENDING VOLUME, BY ASSET CLASS

€ billion	Jun. 30, 2024	Dec. 31, 2023
Entities within the Cooperative Financial Network	145.6	148.6
Financials	45.3	44.5
Corporates	81.6	80.9
Asset-based lending/project finance	13.1	12.7
Public sector	41.0	36.0
Real estate (commercial and retail customers)	118.3	118.4
Retail business (excluding real estate customers)	18.2	18.0
ABSs and ABCPs	11.5	9.2
Other	2.7	2.6
Total	**477.5**	**471.0**

FIG. VI.14 – BANK SECTOR: LENDING VOLUME, BY COUNTRY GROUP

€ billion	Jun. 30, 2024	Dec. 31, 2023
Europe	57.1	54.5
of which: eurozone	37.3	35.1
North America	15.1	14.5
Central America	0.1	0.2
South America	1.1	1.0
Asia	8.6	7.8
Africa	1.3	1.3
Other	2.0	2.0
Total	**85.3**	**81.2**

6.1.3 Rating structure of the credit portfolio

The proportion of the total lending volume accounted for by rating classes 1A to 3A (investment grade) remained unchanged at 89 percent between December 31, 2023 and June 30, 2024. Rating classes 3B to 4E (non-investment grade) represented 10 percent, which was also unchanged. Defaults, represented by rating classes 5A to 5E, continued to account for less than 1 percent of the total lending volume.

Fig. VI.15 shows the lending volume by rating class according to the VR credit rating master scale.

6.1.4 Collateralized lending volume

Fig. VI.16 shows the breakdown of the collateralized lending volume at overall portfolio level by type of collateral.

In the case of **traditional lending business**, the lending volume is generally reported as a gross figure before the application of any offsetting agreements, whereas the gross lending volume in the **derivatives and money market business** is shown on a netted basis. In the derivatives and money market business, collateral values are relatively low and are in the form of personal and financial collateral. In the **securities business**, there is generally no further collateralization to supplement the collateral already taken into account. For this reason, securities business is not included in the presentation of the collateralized lending volume.

The total collateral value fell from €130.8 billion as at December 31, 2023 to €130.1 billion as at June 30, 2024. The collateralization rate was 32.5 percent at the reporting date (December 31, 2023: 32.7 percent).

FIG. VI.15 – BANK SECTOR: LENDING VOLUME, BY INTERNAL RATING CLASS

€ billion		Jun. 30, 2024	Dec. 31, 2023
Investment grade	1A	38.1	31.9
	1B	6.7	6.2
	1C	159.5	162.7
	1D	19.4	14.4
	1E	23.0	23.9
	2A	20.9	25.4
	2B	30.5	33.5
	2C	33.5	27.7
	2D	31.5	32.2
	2E	37.1	35.4
	3A	23.2	23.6
Non-investment grade	3B	13.9	13.4
	3C	10.1	10.0
	3D	7.9	8.4
	3E	6.0	5.9
	4A	2.9	3.1
	4B	2.9	2.8
	4C	1.2	1.3
	4D	0.5	0.6
	4E	2.1	2.1
Default		4.0	3.8
Not rated		2.5	2.6
Total		**477.5**	**471.0**

FIG. VI.16 – BANK SECTOR: COLLATERAL VALUE, BY TYPE OF COLLATERAL

€ billion	Jun. 30, 2024	Dec. 31, 2023
Guarantees, indemnities, risk subparticipation	6.8	7.0
Credit insurance	6.2	6.0
Land charges, mortgages, registered ship and aircraft mortgages	113.5	114.1
Pledged loans and advances, assignments, other pledged assets	1.9	2.0
Financial collateral	1.4	1.4
Other collateral	0.3	0.4
Total collateral	**130.1**	**130.8**
Lending volume	400.3	400.3
Uncollateralized lending volume	**270.2**	**269.5**
Collateralization rate (percent)	**32.5**	**32.7**

6.1.5 Volume of closely monitored and non-performing loans

Closely monitored loans and forborne exposure

Fig. VI.17 shows the volume of loans on the three monitoring lists – **yellow list**, **watchlist**, and **default list** – and the forborne exposure also included in these lists. A further item in the table shows the exposure managed as forborne but not subject to intensified loan management, i.e. not included in the lists.

The **closely monitored lending volume** declined by 7 percent between December 31, 2023 and June 30, 2024. This increase was chiefly due to a rise of €378 million at DZ BANK, €272 million at DZ HYP, and €94 million at TeamBank.

FIG. VI.17 – BANK SECTOR: CLOSELY MONITORED LENDING VOLUME AND FORBORNE EXPOSURE

€ million	Jun. 30, 2024	Dec. 31, 2023
Yellow list lending volume	**4,754**	3,786
of which: forborne exposure	530	626
Watchlist lending volume	**4,543**	4,901
of which: forborne exposure	1,225	999
Default list lending volume	**4,003**	3,792
of which: forborne exposure	1,538	1,473
Total lending volume on monitoring lists	**13,300**	12,479
of which: forborne exposure	3,293	3,097
Off-monitoring-list forborne exposure	225	327
Total forborne exposure[1]	3,519	3,424

1 Both on and off the monitoring lists.

The **forborne exposure** rose from €3,424 million as at December 31, 2023 to €3,519 million as at June 30, 2024, predominantly owing to an increase of €71 million in the forborne exposure at DZ BANK.

Non-performing loans

As at June 30, 2024, the volume of non-performing loans (NPL) had risen to €4.0 billion from €3.8 billion as at December 31, 2023. This increase was chiefly due to the rise in non-performing loans of €94 million at DZ HYP, €43 million at DZ BANK, and €28 million at TeamBank. The NPL ratio was unchanged on the end of 2023 at 0.8 percent.

Fig. VI.18 shows the key figures relating to non-performing loans.

FIG. VI.18 – BANK SECTOR: KEY FIGURES FOR NON-PERFORMING LOANS

	Jun. 30, 2024	Dec. 31, 2023
Total lending volume (€ billion)	477.5	471.0
Volume of non-performing loans (€ billion)[1]	4.0	3.8
Balance of loss allowances (€ billion)[2]	1.7	1.6
Coverage ratio (percent)[3]	80.3	79.7
NPL ratio (percent)[4]	0.8	0.8

1 Volume of non-performing loans excluding collateral.
2 IFRS specific loan loss allowances at stage 3, including provisions.
3 Loss allowances as specified in footnote 2, plus collateral, as a proportion of the volume of non-performing loans.
4 Volume of non-performing loans as a proportion of total lending volume.

6.2 Credit portfolios particularly affected by negative macroeconomic conditions

The following sections describe credit portfolios in which the effects of negative macroeconomic conditions were more noticeable than in the rest of the credit portfolios. The figures presented below are included in the disclosures for the lending volume as a whole (see chapter VI.6.1).

6.2.1 Structural change in the automotive sector

The automotive sector has been in a state of upheaval for a number of years and faces certain challenges compared with other industries, such as low profit margins and a need for high levels of capital, coupled with long investment cycles. The European Parliament's decision to end the sale of passenger cars with internal combustion engines by 2035 will, in the next few years, further accelerate the switch to alternative drives – especially electric vehicles – and keep the pressure on the industry to transform.
The completion of outstanding orders from previous years had led to the recovery of global passenger car sales in the first half of 2023. Demand in the automotive industry then began to weaken in the second half of the

year. This decline continued in the first half of 2024, with the electric vehicle segment hit particularly hard. The outlook remains muted for the rest of the year, and potential trade restrictions may exacerbate the situation.

As at June 30, 2024, the lending volume in DZ BANK's automotive finance portfolio stood at €5.3 billion, which was unchanged compared with December 31, 2023. This portfolio includes loans to automotive suppliers, which are analyzed separately in chapter VI.6.4.3.

6.2.2 Commercial real estate finance

Business model and macroeconomic risks

DZ HYP's lending business with corporates includes financing for hotels, office real estate, department stores, shopping malls, and inner-city commercial properties that are mainly used for retail/wholesale businesses not offering day-to-day essentials (retail/wholesale segment). In addition, DZ HYP provides financing to property developers and project developers. It also finances purchases of land for which development plans have been drawn up.

Since 2020, these asset classes have been impacted by a number of general and specific sources of uncertainty. In the first half of 2024, the main risk factors were muted economic growth, a rise in company insolvencies, a falling yet still high inflation rate, and a climate that remains difficult for businesses and consumers. Global political and macroeconomic headwinds also added to the uncertainty. As a result of these macroeconomic challenges and the associated reluctance to invest, the first six months of 2024 saw little in the way of transactions. Furthermore, elevated finance costs resulting from the persistently high interest rates continued to have a dampening effect on the market.

The portfolios in question have so far proven to be crisis-resistant with no structural anomalies. The heightened requirements established in the past with regard to the underlying value and cash flow performance of the financed real estate have a risk-mitigating effect. Nevertheless, uncertainty stemming from the aforementioned factors persists for commercial real estate finance, particularly in terms of whether financially viable rental and purchase prices can be achieved. This could adversely impact on cash flow, capital expenditure, and market values. For a return to a normal level, interest rates must continue to stabilize and the economy must stage a significant and sustained recovery.

Risks specific to individual real estate finance segments

Since 2023, **hotel** occupancy has largely stabilized at the level seen before the pandemic. Tourism demand in Germany continues to rise, pointing to a cautiously optimistic trend for 2024. The persistently weak economy, rising inflation-induced price sensitivities, and a lack of skilled workers, combined with ongoing pressure from competitors and rising costs, continue to be material risk factors for hotel real estate.

Office real estate is subject to uncertainty with regard to tenants' future wishes and their space requirements in light of the new ways of working, which involve new space concepts and remote working. It is becoming apparent that less space will be required going forward, with demand focused on modern, high-quality, and ESG-compliant space in city centers or well connected locations with good access to services and amenities. Another adverse factor for this segment is the ongoing weakness of the economy, which is resulting in reduced demand for office space as it is causing many businesses to reconsider their growth and investment plans.

Department stores, shopping malls, and inner-city commercial properties that are mainly used for retail/wholesale businesses not offering day-to-day essentials have been seeing a trend toward downsizing and a concentration of demand in top locations for some time. The recent stable rise in rents on new contracts is tempered by the uncertainty caused by the sluggish economy and by consumer sentiment and purchasing power that remain weak.

The market for **property development and project development** transactions is still challenging, and there was no fresh impetus in the first half of 2024. Prices for plots of land, construction work, and building materials have fallen again overall. However, some are still too high for a financially viable investment because purchase prices for completed properties have declined. With the market for property development and project development work largely at a standstill, there is also heightened marketing risk for **plots of land**.

Lending volume by finance segment

As at June 30, 2024, the volume of corporate loans extended by DZ HYP amounted to a total of €46.5 billion (December 31, 2023: €46.7 billion). Of this total, the following amounts were attributable to the aforementioned asset classes as at the reporting date (figures as at December 31, 2023 shown in parentheses):

– Hotel financing: €2.3 billion (€2.2 billion)
– Office real estate financing: €14.8 billion (€14.8 billion)
– Department store financing: €0.5 billion (€0.5 billion)
– Shopping mall financing: €2.6 billion (€2.6 billion)
– Financing for inner-city commercial properties mainly used for retail/wholesale businesses not offering day-to-day essentials: €0.8 billion (€0.9 billion)
– Property developer and project developer financing and financing for land purchases: €6.1 billion (€5.7 billion)

Financing for property developers and project developers and financing for land purchases also include certain portions of the financing for the aforementioned asset classes, in particular the financing of office real estate, which had a volume of €2.9 billion as at June 30, 2024 (December 31, 2023: €2.6 billion).

6.2.3 Financing for retail customer in the consumer finance business

The macroeconomic risk factors described in the 2023 risk report continue to impact on the financial strength of retail customers. This is especially apparent in TeamBank's consumer finance business. Some key risk indicators deteriorated over the course of 2024. Among other things, this led to a rise in non-performing loans.

6.3 Credit portfolios particularly affected by acute global crises

The following sections present the lending volume in the credit portfolios in which the effects of acute global crises were more noticeable than in the rest of the credit portfolios. The figures presented below are included in the disclosures for the lending volume as a whole (see chapter VI.6.1).

The **war between Israel and Hamas** affected further regions of the Middle East during the first half of 2024. Unlike in the 2023 risk report, Saudi Arabia is therefore included as an affected country, in the broader sense, in Fig. VI.19.

The lending volume of the **Bank sector** in countries affected by global crises amounted to €4,860 million as at June 30, 2024 (December 31, 2023: €4,392 million; figure in the 2023 risk report excluding Saudi Arabia: €4,182 million). This equated to 1.0 percent of the total lending volume of the Bank sector (December 31, 2023: 0.9 percent; figure in the 2023 risk report excluding Saudi Arabia: 0.9 percent). Taking account of recoverable collateral, the net lending volume was €2,299 million as at June 30, 2024 (December 31, 2023: €1,815 million; figure in the 2023 risk report excluding Saudi Arabia: €1,634 million).

This exposure mainly comprised short-dated trade finance, project finance backed by export credit agencies, and syndicated bank loans.

Fig. VI.19 shows the breakdown of the net lending volume in the countries affected by the various crises.

FIG. VI.19 – BANK SECTOR: NET LENDING VOLUME IN COUNTRIES PARTICULARLY AFFECTED BY ACUTE GLOBAL CRISES

€ million	Jun. 30, 2024	Dec. 31, 2023
Net lending volume in countries affected directly by the war in Ukraine	**89**	**94**
of which: Belarus	1	2
of which: Russia	88	91
of which: Ukraine	–	2
Net lending volume in countries affected by the Israel-Hamas war	**747**	**614**
of which: Egypt	47	58
of which: Iraq	2	2
of which: Israel	1	1
of which: Saudi Arabia	205	182
of which: Turkey	492	371
Net lending volume in countries affected directly by the dispute between China and Taiwan	**1,463**	**1,107**
of which: China	1,243	1,008
of which: Taiwan	220	100
Total	**2,299**	**1,815**

6.4 Credit portfolios with increased risk content

The lending volume in the credit portfolios with increased risk content is analyzed separately because of its significance for the risk position. The figures presented below are included in the above analyses of the total lending volume (see chapter VI.6.1).

6.4.1 Finance for cruise ships

Cruise ship companies benefited from strong growth in bookings and prices in 2024. Following their return to positive operating results, which was reflected in their annual accounts for 2023, and thanks to the comprehensive capital-raising measures taken in the recent past, cruise ship companies' liquidity levels are largely comfortable once more.

These companies do need to regain their former strength promptly so that they can service the debt they built up during the pandemic and pay for fleet expansions, some of which are already scheduled, and regain investment-grade credit ratings in the medium term. In the long term, the industry should continue to capitalize on the popularity of cruises in order to combat the effects of inflation, high marketing expenditure, and fluctuating fuel prices.

Cruise ship finance in the Bank sector is mainly brought together under **DZ BANK**. As at June 30, 2024, the volume of cruise ship finance amounted to €951 million (December 31, 2023: €994 million). Collateral worth €602 million was available as at June 30, 2024 (December 31, 2023: €644 million). Of this amount, €583 million was attributable to export credit insurance (December 31, 2023: €612 million). The robust business performance of cruise ship companies saw their credit ratings improve, decreasing the risk capital requirement, as shown in Fig. VI.21.

6.4.2 Finance for cruise ship building

A distinction is made between cruise ship finance and the financing of cruise ship building. This segment, which only affects **DZ BANK** in the Bank sector, is still undergoing a large-scale transformation process.
In consultation with the parties ordering cruise ships, a base level of capacity utilization was secured for the period until 2025/2026 by spreading out orders on hand. Further orders have since been generated and, in some cases, capacity utilization has been secured until part way through 2028. Nevertheless, the challenges of the last few years have taken a heavy toll on customers' credit quality. The affected companies' financial circumstances have not yet stabilized sufficiently, making the outlook uncertain.

The lending volume related to the financing of cruise ship building stood at €347 million as at June 30, 2024 (December 31, 2023: €337 million). Collateral worth €276 million was available as at June 30, 2024 (December

31, 2023: €258 million). Of this amount, €190 million was attributable to export credit insurance (December 31, 2023: €179 million).

6.4.3 Finance for automotive suppliers

In addition to the factors described in chapter VI.6.2.1 that apply to the automotive sector as a whole, conditions remain particularly challenging for automotive suppliers in Germany.

Historical data shows that the automotive supply industry is characterized by high capital requirements but has comparatively low margins and, due to oligopoly-style structures in the automotive manufacturing industry, a relatively weak competitive position.

It has previously become clear that, compared with their suppliers, car manufacturers are significantly better positioned to be able to adapt to global supply chain disruptions, for example by changing their product mix. Financial performance in the automotive supply industry hinges primarily on the number of cars manufactured, which in 2023 rose sharply across Europe due to the backlog of orders being processed. In many cases, however, this trend has not been sustained, as can be seen in the fall in the number of order call-offs since the start of this year.

The technology and development expertise of major global suppliers will ensure that they remain the partner of choice for vehicle manufacturers around the world. Over the medium term, Asia is expected to be a significant source of growth stimulus in the coming years, even though growth rates in China are slowing. The same goes for Chinese manufacturers, who are operating more and more on a global scale. As new technologies and the demand associated with these often evolve in a very dynamic and unpredictable manner, such opportunities for growth also come with increased risks. The risks include the uncertainty surrounding future drive systems and vehicle designs, as well as geopolitical tensions, especially with regard to China.

As at June 30, 2024, loans to companies in the automotive supply industry, which fall into **DZ BANK's** 'corporates' asset class, totaled €3,433 million (December 31, 2023: €3,338 million).

6.4.4 Finance for borrowers in the clothing and textile industry

The clothing and textile industry tends to be sensitive to changes in the economic environment and inflation, and is also marked by fierce competition. The industry suffered from lengthy store closures during the pandemic. Since the middle of 2022, high prices have particularly eroded household purchasing power, with risks concentrated in the mid-range price segment. Demand in the upper and lower price segments, by contrast, has fared better. High freight costs, increased commodity prices, and high energy and rental costs in brick-and-mortar retail, combined with the weak euro at the start of the retail season, led to a significant rise in costs and weighed heavily on the affected companies' financial performance. Current revenue growth is largely being driven by prices.

Although the first half of 2024 saw significantly slower price increases than recent years, current geopolitical tensions are unsettling consumers, which in turn is adversely affecting their spending both in brick-and-mortar stores and online. A turnaround in the second half of 2024 is unlikely, especially in view of the weak macroeconomic data.

As at June 30, 2024, the Bank sector's lending volume in this industry was €1,731 million (December 31, 2023: €1,757 million). Within the Bank sector, the lending exposure to the clothing and textile industry was concentrated at **DZ BANK**.

6.4.5 Finance for borrowers in the construction industry and for home improvement stores

Given their above-average sensitivity (with a time lag) to changes in the wider economy and the fierce level of competition, the construction industry and home improvement stores have been battling several negative factors for quite a while.

The rise in construction costs, the current interest-rate environment, and the policy situation are placing a particular burden on residential construction. These factors have significantly depressed demand across the entire industry.

The number of completed homes is expected to keep falling this year, and the number of residential planning permissions is also predicted to decline further. The forecast for the level of orders on hand in the second half of 2024 in industrial, commercial, and public-sector construction is largely stable, although this will not make up for the reduction in orders for residential construction. Overall, capacity utilization is still expected to go down in the construction segment. Nevertheless, construction companies with international operations can compensate for the situation in the German economy to some extent.

Despite the stabilizing effect of cost-conscious customers who are increasingly carrying out repairs themselves, substantial price increases and the rise in interest rates continue to severely dampen the level of consumer demand experienced by home improvement stores. The situation has been further exacerbated by sustained geopolitical tensions and the resulting uncertainty among consumers. Although price rises slowed significantly in the first half of this year, there are no signs yet of a widespread rebound in consumer demand owing to the ongoing difficulties presented by the macroeconomic situation and the dependence on the construction industry.

The Bank sector's exposure as at June 30, 2024 amounted to €6,682 million (December 31, 2023: €7,456 million). The lending volume in this portfolio was mainly attributable to **DZ BANK**.

6.5 Risk position

6.5.1 Risks in the entire credit portfolio

The risk capital requirement for credit risk is based on a number of factors, including the size of single-borrower exposures, individual ratings, collateral, and the industry sector of each exposure.

As at June 30, 2024, the **risk capital requirement** amounted to €3,672 million (December 31, 2023: €3,971 million). The decrease compared with the end of 2023 was largely attributable to a change in the method used for the development lending business at **DZ BANK**. The corresponding **limit** was €4,994 million (December 31, 2023: €4,988 million).

Fig. VI.20 shows the credit value-at-risk together with the average probability of default and expected loss.

In the analysis of **individual concentrations** in the **Bank sector**, the 20 counterparties associated with the largest credit value-at-risk accounted for 23 percent of the total credit value-at-risk as at the reporting date (December 31, 2023: 28 percent). These counterparties largely comprised borrowers from the financial sector (including the cooperative banks) with investment-grade ratings and individual borrowers with non-investment-grade ratings.

FIG. VI.20 – BANK SECTOR: FACTORS DETERMINING THE CREDIT VALUE-AT-RISK

	Jun. 30, 2024	Dec. 31, 2023
Average probability of default (percent)	0.4	0.3
Expected loss (€ million)	453	440
Credit value-at-risk (€ million)	3,672	3,971

6.5.2 Risks in the credit portfolios with increased risk content

The risk capital requirement for **Bank sector** credit portfolios exposed to increased credit risk is shown in Fig. VI.21.

FIG. VI.21 – BANK SECTOR: CREDIT VALUE-AT-RISK[1] FOR CREDIT PORTFOLIOS WITH INCREASED RISK CONTENT

€ million	Jun. 30, 2024	Dec. 31, 2023
Finance for cruise ships	1	2
Finance for cruise ship building	4	4
Finance for automotive suppliers	52	46
Finance for borrowers in the clothing and textile industry	11	10
Finance for borrowers in the construction industry (including home improvement stores)	51	50

1 Excluding decentralized capital buffer requirement.

The reasons for the changes in the credit value-at-risk as at the reporting date compared with December 31, 2023 are set out in chapter VI.6.4.

7 Equity investment risk

The **carrying amounts of long-term equity investments** relevant for the measurement of equity investment risk amounted to €2,924 million as at June 30, 2024 (December 31, 2023: €3,046 million).

The **risk capital requirement** for equity investment risk was calculated to be €795 million as at June 30, 2024 (December 31, 2023: €998 million). The corresponding **limit** was €1,364 million as at the reporting date (December 31, 2023: €1,281 million).

The decline in the risk capital requirement was attributable to the sale of individual long-term equity investments. A change in the risk modeling methods used also contributed to the reduction in risk.

8 Market risk

8.1 Value-at-risk
Fig. VI.22 shows the average, maximum, and minimum values-at-risk measured over the first half of the year, including a further breakdown by type of market risk. Furthermore, Fig. VI.23 shows the change in market risk by trading day in the reporting period. In both figures, the value-at-risk relates to the **trading and banking books for regulatory purposes**.

The value-at-risk for the **interest-rate risk in the banking book for regulatory purposes** amounted to €39 million as at June 30, 2024 (December 31, 2023: €48 million).

The reduction in risk was partly attributable to particular scenarios no longer being included in the rolling observation period in the risk model. An improvement in the methods used to measure non-outsourced defined benefit obligations also contributed to the reduction in risk.

The value-at-risk for interest-rate risk in all of the portfolios and the value-at-risk for interest-rate risk in the banking book for regulatory purposes are calculated using identical risk models. Variations in risk values are attributable directly to differences in the calculation bases used for the various portfolios.

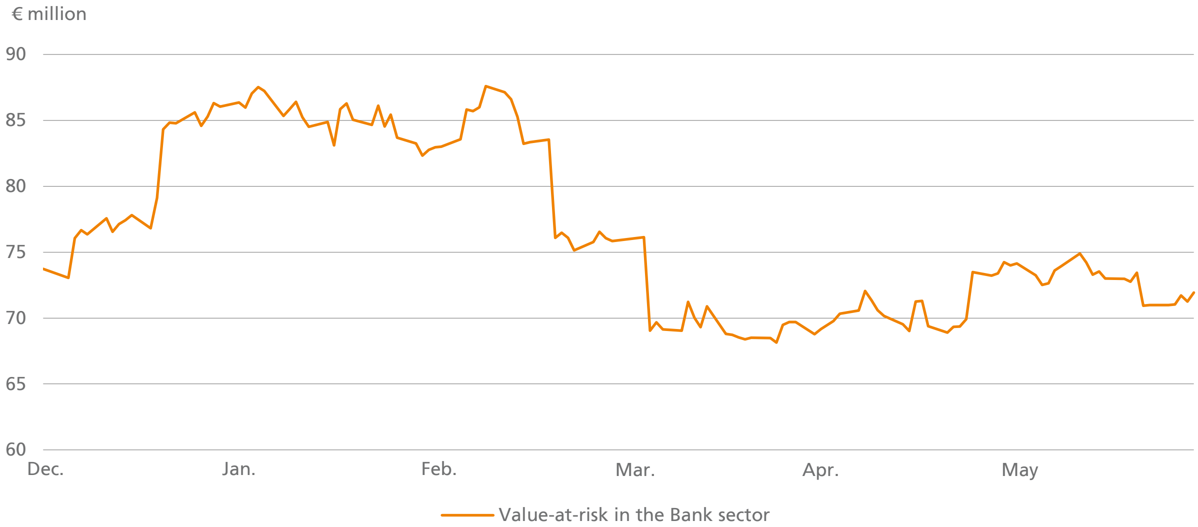
As at June 30, 2024, the value-at-risk totaled €72 million (December 31, 2023: €74 million).

FIG. VI.22 – BANK SECTOR: CHANGE IN MARKET RISK BY RISK SUBTYPE[1, 2]

€ million	Interest-rate risk	Spread risk	Equity risk[3]	Currency risk	Commodity risk	Aggregate risk[4]
Jun. 30, 2024	**39**	**61**	**8**	**6**	**1**	**72**
Average	49	63	9	5	2	77
Maximum	63	67	11	6	2	88
Minimum	39	58	8	3	1	68
Dec. 31, 2023	**49**	**58**	**9**	**5**	**2**	**74**

1 The disclosures relate to general market risk and spread risk. Asset-management risk is not included.
2 Value-at-risk with 99.0% confidence level, 1-day holding period, 1-year observation period, based on a central market risk model for the Bank sector. Concentrations and effects of diversification were taken fully into account when calculating the risks.
3 Including funds, if not broken down into constituent parts.
4 Due to the diversification effect between the market risk subtypes, the aggregate risk does not tally with the total of the individual risks.

FIG. VI.23 – BANK SECTOR: CHANGE IN MARKET RISK BY TRADING DAY[1]



1 Value-at-risk with 99.0% confidence level, 1-day holding period, 1-year observation period, based on a central market risk model for the Bank sector. Concentrations and effects of diversification were taken fully into account when calculating the risks.

8.2 Risk capital requirement
As at June 30, 2024, the risk capital requirement for **market risk** amounted to €3,780 million (December 31, 2023: €4,169 million) with a limit of €7,120 million (December 31, 2023: €6,470 million). The limit was adjusted in line with the operational planning for 2024.

The Bank sector's risk capital requirement encompasses the **asset-management risk of UMH**. Asset-management risk as at June 30, 2024 amounted to €206 million (December 31, 2023: €273 million). The decrease was mainly due to the buoyant equity markets.

9 Technical risk of a home savings and loan company

As at June 30, 2024, the **risk capital requirement** for the technical risk of a home savings and loan company amounted to €676 million (December 31, 2023: €730 million). The corresponding **limit** was unchanged compared with the end of 2023 at €820 million. In the current market environment, changes to the risk parameters underlying the risk calculation gave rise to a lower risk capital requirement.

10 Business risk and reputational risk

As at June 30, 2024, the **risk capital requirement** for business risk (including reputational risk) amounted to €0 (December 31, 2023: €363 million). The **limit** was €500 million as at the reporting date (December 31, 2023: €450 million). The risk capital requirement is set at zero if the model's loss distribution is positive. Reputational risk is included in the figures shown.

The risk capital requirement for business risk decreased significantly because the planning assumptions concerning parameters with business risk implications had been raised compared with the end of 2023. The limit was increased as at the reporting date as the macroeconomic risk factors mean that a volatile earnings performance cannot be ruled out.

11 Operational risk

11.1 Impact of the war in Ukraine
The monitoring of sanctions necessitates transaction checks that entail an increased workload. This may result, for example, in delays to the execution of transactions or, if applicable, penalty interest payments for trading that involves securities subject to sanctions. The resulting operational risks are factored in by means of the hypothetical risk scenarios 'breaches of sanctions and embargoes' and 'incorrect execution of transactions and processes'.

11.2 Losses
Losses from operational risk do not follow a consistent pattern. The overall risk profile can be seen from the total losses incurred over the long term and is shaped by a small number of large losses. Over the course of time, regular fluctuations are evident in the pattern of losses as the frequency of relatively large losses in each individual case is very low. Presenting the change in losses meaningfully therefore requires a sufficiently long and unchanging time horizon for reporting purposes. The data is selected from the loss history for the past four quarters and on the basis of the date on which the expense is recognized in the income statement.

The past four quarters – that is, the period from July 1, 2023 to June 30, 2024 – represent the relevant reporting period for an analysis of net losses. Fig. VI.24 shows the internal net losses from loss events reported in this period, classified by operational risk subtype, and a comparison with their long-term mean.

In the past four quarters, internal losses were dominated by **compliance risk**, **legal risk**, and **other operational risk**. The losses for other operational risk were higher than in the prior period. The main reasons for the rise in other operational risk were that procedural errors were made when posting to accounts, switching over accounts, and transferring share certificates.

Losses did not reach a critical level relative to the expected loss from operational risk at any point in the first half of 2024.

FIG. VI.24 – BANK SECTOR: NET LOSSES[1] BY OPERATIONAL RISK SUBTYPE

€ million	Jul. 1, 2023 –Jun. 30, 2024	Long-term mean[2]
Compliance risk	7	23
Legal risk	4	21
Information risk including ICT risk	3	3
Security risk	2	2
Outsourcing risk	2	1
Project risk	–	1
Other operational risk	28	9
Total[3]	**46**	**59**

1 Internal losses. Operational losses related to credit risk are not included in this breakdown.
2 The long-term mean is derived from loss data recorded since 2006.
3 Losses that are allocable to more than one operational risk subtype are split equally between the relevant subtypes.

11.3 Risk position

The **risk capital requirement** for operational risk was calculated at €989 million as at June 30, 2024 (December 31, 2023: €978 million) with a **limit** of €1,157 million (December 31, 2023: €1,148 million).

Fig. VI.25 shows the structure of the risk profile for operational risk in the Bank sector based on **risk subtypes**.

FIG. VI.25 – BANK SECTOR: DISTRIBUTION OF RISK CAPITAL REQUIREMENT FOR OPERATIONAL RISK, BY RISK SUBTYPE[1]

Percent	Jun. 30, 2024	Dec. 31, 2023
Compliance risk	30.5	30.4
Legal risk	19.3	19.4
Information risk including ICT risk	16.7	16.9
Security risk	5.0	5.0
Outsourcing risk	5.9	5.9
Project risk	6.3	6.3
Other operational risk	16.2	16.0

1 Proportion of the Bank sector's risk capital requirement attributable to each risk subtype.

The distribution of the risk capital requirement among the operational risk subtypes remained largely unchanged as at June 30, 2024 compared with the end of the previous year. In the first half of 2024, **compliance risk** and **legal risk** accounted for the most significant proportions of the risk capital requirement. A large proportion of the risk capital requirement for these two risk subtypes was determined by the recorded losses and by the hypothetical risk scenarios for changes to case law and for breaches of sanctions and embargoes.

Insurance sector

12 Actuarial risk

As at June 30, 2024, the **overall solvency requirement** for **life actuarial risk** amounted to €917 million (December 31, 2023: €946 million) with a **limit** of €1,200 million (December 31, 2023: €1,060 million). The decrease in risk was due to lower lapse risk.

As at the reporting date, the **overall solvency requirement** for **health actuarial risk** was €233 million (December 31, 2023: €255 million) with a **limit** of €360 million (December 31, 2023: €285 million). The slight decline in risk was primarily due to lower premiums in the inward reinsurance segment.

The **overall solvency requirement** for **non-life actuarial risk** amounted to €1,767 million as at June 30, 2024 (December 31, 2023: €1,823 million) with a **limit** of €2,120 million (December 31, 2023: €1,900 million). This reduction in risk resulted primarily from changes to the reinsurance structure and a decline in lapse risk.

13 Market risk

13.1 Change in lending volume

In accordance with the breakdown specified in Solvency II, the bulk of credit risk within market risk is assigned to spread risk. The other parts of credit risk are measured within counterparty default risk and other risk types.

The **total lending volume** of R+V rose by 0.1 percent in the first half of the year, from €89.8 billion as at December 31, 2023 to €89.9 billion as at June 30, 2024.

The financial sector and the public sector, which are the dominant **asset classes**, together accounted for 67 percent of the total lending volume, as they had at the end of 2023.

The explanation of the asset class concept in the Bank sector (see chapter VI.6.1.1) applies analogously to the Insurance sector. Fig. VI.26 shows the breakdown of the lending volume by asset class.

FIG. VI.26 – INSURANCE SECTOR: LENDING VOLUME, BY ASSET CLASS

€ billion	Jun. 30, 2024	Dec. 31, 2023
Financials	40.1	40.1
Corporates	12.0	12.3
Public sector	19.9	19.7
Real estate (commercial and retail customers)	16.7	16.5
Other retail business	0.1	0.1
ABSs and ABCPs[1]	1.1	1.2
Total	**89.9**	**89.8**

1 ABSs = asset-backed securities, ABCPs = asset-backed commercial paper.

In the real estate asset class (commercial and retail customers), the volume of lending in the **home finance** business came to €14.4 billion as at June 30, 2024 (December 31, 2023: €14.2 billion). Of this amount, 87 percent was accounted for by loans for less than 60 percent of the value of the property, a situation that was unchanged compared with December 31, 2023.

As at the reporting date, the volume of home finance was broken down by finance type as follows (figures as at December 31, 2023 shown in parentheses):

– Consumer home finance: €13.0 billion (€12.8 billion)
– Commercial home finance: €0.1 billion (€0.1 billion)
– Commercial finance: €1.2 billion (€1.3 billion)

In the case of home finance, the entire volume disbursed is backed by traditional loan collateral.

Fig. VI.27 shows the **geographical distribution** of the credit portfolio by country group. Borrowers based in Germany are not included in this breakdown. The relevant country for the assignment to a country group is the one in which the economic risk arises. As at June 30, 2024, 74 percent of the total lending outside Germany was concentrated in Europe, as had been the case at the end of 2023.

FIG. VI.27 – INSURANCE SECTOR: LENDING VOLUME, BY COUNTRY GROUP

€ billion	Jun. 30, 2024	Dec. 31, 2023
Europe	44.2	43.9
of which: eurozone	35.4	34.9
North America	8.2	8.2
Central America	0.5	0.5
South America	1.0	1.0
Asia	3.5	3.5
Africa	0.3	0.3
Other	1.8	1.9
Total	**59.5**	**59.3**

For **credit ratings**, R+V generally uses ratings from rating agencies approved by the supervisory authorities. It also applies its own expert ratings in accordance with the provisions of Credit Rating Agency Regulation III to validate the external credit ratings. R+V has defined the external credit rating as the permitted maximum, even in cases where its own rating is better. The ratings calculated in this way are matched to the DZ BANK credit rating master scale using the methodology shown in Fig. VII.20 of the 2023 risk report.

The **rating structure** of the lending volume in the Insurance sector is shown in Fig. VI.28. Of the total lending volume as at June 30, 2024, 75 percent was attributable to investment-grade borrowers, which was the same percentage as at the end of 2023. Defaults, represented by rating classes 5A to 5E, accounted for less than 1 percent of the total lending volume. The lending volume that is not rated, which also remained unchanged compared with the end of 2023 at 23 percent of the total lending volume, essentially comprised consumer home finance for which external ratings were not available. Consumer home finance is deemed to be low-risk because the lending is based on a selective approach and the mortgageable value of the assets is limited.

FIG. VI.28 – INSURANCE SECTOR: LENDING VOLUME, BY INTERNAL RATING CLASS

€ billion		Jun. 30, 2024	Dec. 31, 2023
Investment grade	1A	28.3	23.0
	1B	6.5	11.4
	1C	–	–
	1D	10.3	10.6
	1E	–	–
	2A	6.5	6.3
	2B	4.8	5.6
	2C	5.5	4.9
	2D	2.9	2.7
	2E	–	–
	3A	2.9	3.0
Non-investment grade	3B	0.4	0.4
	3C	0.4	0.3
	3D	–	–
	3E	0.2	0.2
	4A	0.1	0.2
	4B	0.1	–
	4C	–	–
	4D	–	–
	4E	–	–
Default		0.2	–
Not rated		20.9	21.0
Total		**89.9**	**89.8**

In the analysis of **individual concentrations**, the 10 counterparties associated with the largest lending volumes accounted for 16 percent of R+V's total lending volume as at June 30, 2024 (December 31, 2023: 17 percent).

13.2 Credit portfolios particularly affected by negative conditions

Differences in economic policy in the eurozone are particularly affecting investments of R+V in **Italy**. R+V's affected exposure as at June 30, 2024 amounted to €2,724 million (December 31, 2023: €2,493 million). The increase in the exposure compared with December 31, 2023 was largely due to investments in bonds.

13.3 Credit portfolios particularly affected by acute global crises

The **war between Israel and Hamas** affected further regions of the Middle East, particularly Saudi Arabia and Jordan, during the first half of 2024. Unlike in the 2023 risk report, the exposure of R+V therefore now includes Saudi Arabia and Jordan .

The exposure of R+V in countries affected by acute global crises totaled €754 million as at June 30, 2024 (December 31, 2023: €739 million; figure in the 2023 risk report excluding Saudi Arabia and Jordan: €465 million). This continued to equate to 0.8 percent of the total lending volume of R+V (figure in the 2023 risk report excluding Saudi Arabia and Jordan: 0.5 percent) and largely comprised fixed-income securities.

The exposure of R+V in the countries particularly affected by the war between Israel and Hamas broke down as at the reporting date as follows (figures as at December 31, 2023 shown in parentheses):
– Egypt: €1 million (€4 million)
– Israel: €299 million (€293 million)
– Jordan: €24 million (€20 million)
– Saudi Arabia: €268 million (€254 million)

In light of the simmering dispute between **China and Taiwan**, lending by R+V to counterparties in Taiwan is being monitored very closely. As at June 30, 2024, there was no exposure to borrowers based in Taiwan, a situation that was unchanged compared with December 31, 2023. R+V's lending volume in China amounted to €162 million as at June 30, 2024 (December 31, 2023: €168 million).

13.4 Risk position

As at June 30, 2024, the **overall solvency requirement** for market risk amounted to €3,669 million (December 31, 2023: €3,580 million) with a **limit** of €4,150 million (December 31, 2023: €3,695 million). The increase in risk was largely due to the higher risk capital buffer for interest-rate risk and growth in the portfolio of interest-rate-sensitive investments.

Fig. VI.29 shows the overall solvency requirement for the various types of market risk.

FIG. VI.29 – INSURANCE SECTOR: OVERALL SOLVENCY REQUIREMENT FOR MARKET RISK, BY RISK SUBTYPE

€ million	Jun. 30, 2024	Dec. 31, 2023
Interest-rate risk	2,548	2,392
Spread risk	662	718
Equity risk	1,229	1,232
Currency risk	364	335
Real-estate risk	422	432
Total (after diversification)	**3,669**	**3,580**

14 Counterparty default risk

Receivables arising from reinsurance contracts held amounted to €66 million as at June 30, 2024 (December 31, 2023: €73 million). Of this volume, 94 percent (December 31, 2023: 100 percent) was owed by companies with an external rating of A or higher. Meanwhile, receivables from reinsurance counterparties without a rating accounted for 6 percent (December 31, 2023: 0 percent) as at June 30, 2024.

The **reinsurers' share of insurance liabilities** is a variable that impacts on the default risk of reinsurance counterparties. Claims against reinsurers for insured events that have not yet occurred and for insured events from direct insurance operations and from inward reinsurance that have occurred, presented by external rating class in accordance with the system of the rating agency Standard & Poor's, are shown in Fig. VI.30. Ratings that were not available at the reporting date are now shown as 'Not rated', whereas they were included in 'Other ratings' in the 2023 risk report.

FIG. VI.30 – INSURANCE SECTOR: VOLUME OF REINSURANCE CONTRACTS HELD, BY EXTERNAL RATING CLASS

€ million	Jun. 30, 2024	Dec. 31, 2023
AAA	–	–
AA+ to AA-	18	21
A+ to A-	131	119
B	1	1
Not rated	13	12
Total	**163**	**154**

Overdue receivables from policyholders and insurance brokers more than 90 days past due as at the reporting date amounted to €20 million as at June 30, 2024 (December 31, 2023: €16 million).

As at June 30, 2024, the **overall solvency requirement** for counterparty default risk amounted to €232 million (December 31, 2023: €219 million) with a **limit** of €325 million (December 31, 2023: €245 million).

15 Operational risk

As at June 30, 2024, the **overall solvency requirement** determined for operational risk amounted to €699 million (December 31, 2023: €627 million). The **limit** was €800 million as at the reporting date (December 31, 2023: €700 million). This increase in risk was due to higher insurance liabilities calculated in accordance with Solvency II.

16 Risks from entities in other financial sectors

As at June 30, 2024, the **overall solvency requirement** for risks in connection with entities in other financial sectors remained unchanged compared with the end of 2023 at €217 million with a **limit** of €265 million (December 31, 2023: €225 million).