Interim group management report

I DZ BANK Group fundamentals

1 Business model and strategic focus

The business model and strategic focus of the DZ BANK Group are described in detail on page 10 onward of the 2021 Annual Report. Those disclosures are also applicable to the first half of 2022 unless otherwise indicated below.

1.1 DVB

DVB Bank SE, Frankfurt am Main, (DVB Bank; subgroup abbreviated to DVB) is a specialist niche provider in the area of international transport finance, focusing on shipping finance. On April 1, 2021, DVB Bank published the decision to integrate into DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main, (DZ BANK). This was achieved by way of a merger on August 12, 2022.

2 Management of the DZ BANK Group

The management of the DZ BANK Group is described in detail on page 18 onward of the 2021 Annual Report. Those disclosures are also applicable to the first half of 2022.

II Business report

1 Economic conditions

Conditions in the German economy proved highly challenging in the first half of 2022. The Omicron variant of coronavirus presented difficulties right from the start of the year, a situation that was then compounded by high inflation, supply chain problems and, ultimately, the war in Ukraine. This unsettled companies and consumers alike, and there is as yet no end in sight. One of the main concerns is the security of the energy supply for German industry, especially natural gas. The economy was therefore buffeted by strong headwinds. However, virtually all statutory infection control measures were eased despite a fresh wave of COVID-19 cases.

Despite the difficult conditions, the German economy expanded by 0.8 percent in the first quarter of 2022 compared with the previous quarter. Capital expenditure was the main source of growth impetus, whereas net exports held back growth. The aforementioned problems took a heavier toll on growth in the second quarter of 2022. Industrial output slowed over the course of the quarter, foreign trade declined, and retail sales fell compared with the first three months of the year. As a result, gross domestic product (GDP) was stagnant in the second quarter of 2022 compared with the previous quarter.

Adjusted for inflation, the average increase in economic output for the first half of 2022 compared with the second half of 2021 was therefore 0.7 percent. Compared with the first half of 2021, the increase was 2.5 percent.

The aforementioned negative factors also affected the economy of the eurozone in the first six months of 2022, albeit to a lesser extent overall. This was partly because many eurozone countries are less dependent on foreign trade with Russia. Following a 3.6 percent rise in GDP in the second half of 2021 compared with the first half of 2021, the eurozone's economic output grew by just 1.0 percent in the period under review. The increase in GDP in the first quarter of 2022 was 0.5 percent. In the second quarter of 2022, GDP continued to grow robustly, rising by 0.7 percent compared with the previous quarter.

The economy in the United States slipped into a technical recession in the first half of 2022. In both the first quarter and the second quarter, economic output declined slightly compared with the respective previous quarter. The primary reason for this was the exceptionally strong negative effects relating to foreign trade in the first quarter of 2022 and relating to inventory components in the second quarter of 2022. This is likely to have been an indirect consequence of the global supply chain disruptions. However, consumer spending and capital expenditure also lost a lot of momentum in the reporting period. Very high inflation and the US Federal Reserve's significant interest-rate hikes also created difficulties for the US economy.

The Chinese economy was primarily influenced by the country's efforts to tackle the wave of Omicron cases in the first half of 2022. Shanghai and other major economic regions went into lockdown in March 2022, in some cases for several weeks. The economy slumped in April 2022, and there were no visible signs of recovery until June when most restrictions were lifted again. Economic output contracted by 2.6 percent in the second quarter of 2022.

2 The financial industry amid continued efforts to stabilize the economy of the eurozone

The war in Ukraine rattled the capital markets in the first half of 2022, whereas the capital markets had staged a recovery in the first half of 2021.

The STOXX Europe 600, a share index comprising 600 large listed European companies, stood at 407.20 points as at June 30, 2022, which was 80.60 points lower than its level at the end of the previous year (December 31, 2021: 487.80 points). In the prior-year period, the index had risen by 53.81 points.

Some EU countries still exceeded the ratios for new and overall indebtedness required for compliance with the stability criteria specified in the Fiscal Compact agreed by the EU member states at the beginning of 2012. In the Fiscal Compact, the signatory countries committed to reducing their debt (as a proportion of GDP) each year by one twentieth of the difference between the debt level and the Maastricht limit of 60 percent of GDP. However, the rules have been suspended until the end of 2022 because of the COVID-19 pandemic.

At the end of the first quarter of 2022, the total borrowing of the 19 eurozone countries equated to 95.6 percent of their GDP, a decrease of 4.4 percentage points compared with the figure of 100.0 percent as at March 31, 2021.

Greece's public debt as a percentage of GDP was 189.3 percent in the first quarter of 2022 (first quarter of 2021: 209.3 percent). In April 2022, the rating agency S&P upgraded Greece's rating by one notch to BB+, following an upgrade to BB in April 2021. Greece paid off its debts to the International Monetary Fund (IMF) at the end of March 2022.

Italy's public debt as a percentage of GDP stood at 152.6 percent in the first quarter of 2022 (first quarter of 2021: 159.3 percent), which is the highest in the eurozone after that of Greece.

Portugal's public debt as a percentage of GDP was 127.0 percent in the first quarter of 2022, compared with 138.9 percent in the first quarter of 2021.

In Spain, public debt as a percentage of GDP stood at 117.7 percent in the first quarter of 2022 (first quarter of 2021: 125.2 percent).

Based on a policy of quantitative easing, the European Central Bank (ECB) has supported the markets for government bonds in recent years, thereby creating the necessary time over the last few years for the European Monetary Union (EMU) countries burdened with excessive debt to reduce their budget deficits. Nonetheless, even in the years prior to the COVID-19 pandemic, the countries specified above had not made sufficient efforts to reduce their high levels of indebtedness, which are above the Maastricht limit of 60 percent. Since September 2019, the ECB has been making additional liquidity available under the targeted longer-term refinancing operations (TLTRO III) program in order to support lending to households and companies during the COVID-19 pandemic.

At its meetings on June 10, 2021 (in the prior-year period) and December 16, 2021, the ECB decided to leave the rate for the deposit facility at minus 0.50 percent. The main refinancing rate remained the same at 0.00 percent, while the rate for the marginal lending facility was also unchanged at 0.25 percent. This ECB policy of zero and negative interest rates that had prevailed in the comparative period was maintained during the reporting period. At its meeting on June 9, 2022, the ECB signaled its intention to raise the key interest rates by 25 basis points in July 2022. On December 16, 2021, the ECB Governing Council decided that net asset purchases under the pandemic emergency purchase program (PEPP), in a total amount of €1,850.0 billion, would be discontinued at the end of March 2022. The maturing principal payments from securities purchased under the PEPP will be reinvested until at least the end of 2024. On March 10, 2022, the ECB Governing Council decided to gradually reduce the monthly volume of assets bought under the asset purchase program (APP). As a result, monthly net purchases amounted to €40.0 billion in April 2022, €30.0 billion in May 2022, and €20.0 billion in June 2022. Net new purchases under the APP were discontinued in July 2022. Reinvestments are due to continue beyond the date of the first interest-rate rise.

On June 15, 2022, the US Federal Reserve (Fed) announced that the federal funds rate would be raised to a range of 1.50 percent to 1.75 percent. In accordance with the Fed's decision of June 16, 2021, the federal funds rate had remained unchanged in the range of 0.00 percent to 0.25 percent in the prior-year period.

On December 15, 2021, the Fed announced that it would be progressively scaling back its bond purchases by US$ 30.0 billion a month. It then ended its asset purchases in March 2022. Since June 2022, the central bank has been slimming down its balance sheet by no longer fully reinvesting securities when they mature. The aim is to progressively trim down the balance sheet until the monthly reductions reach a volume of US$ 95.0 billion.

3 Financial performance

3.1 Financial performance at a glance

Despite the persistently challenging market conditions resulting from the effects of the COVID-19 pandemic, the sharp rise in interest rates, and the war in Ukraine, the DZ BANK Group was able to report a healthy profit before taxes of €1,141 million in the reporting period (first half of 2021: €1,829 million).

The year-on-year changes in the key figures that made up the net profit generated by the DZ BANK Group in the reporting period were as described below.

FIG. 1 – INCOME STATEMENT

€ million	Jan. 1– Jun. 30, 2022	Jan. 1– Jun. 30, 2021
Net interest income	1,475	1,384
Net fee and commission income	1,364	1,596
Gains and losses on trading activities	359	6
Gains and losses on investments	-53	37
Other gains and losses on valuation of financial instruments	105	234
Gains and losses from the derecognition of financial assets measured at amortized cost	11	6
Net income from insurance business	25	522
Loss allowances	-60	114
Administrative expenses	-2,242	-2,142
Staff expenses	-1,001	-966
Other administrative expenses[1]	-1,240	-1,177
Other net operating income	156	73
Profit before taxes	1,141	1,829
Income taxes	-360	-522
Net profit	**781**	**1,307**

1 General and administrative expenses plus depreciation/amortization expense.

Operating income in the DZ BANK Group amounted to €3,442 million (first half of 2021: €3,858 million). This figure comprises net interest income, net fee and commission income, gains and losses on trading activities, gains and losses on investments, other gains and losses on valuation of financial instruments, gains and losses from the derecognition of financial assets measured at amortized cost, net income from insurance business, and other net operating income.

Net interest income rose by €91 million year on year to €1,475 million (first half of 2021: €1,384 million). Within this figure, interest income from lending and money market business went up by €132 million to €2,362 million (first half of 2021: €2,230 million) and interest income from bonds and other fixed-income securities by €16 million to €210 million (first half of 2021: €194 million). Current income and expense from using the equity method increased by €8 million to income of €23 million (first half of 2021: income of €15 million), largely because of the higher equity-accounted measurement of Deutsche WertpapierService Bank AG, Frankfurt am Main, compared with the prior-year period. Interest expense on deposits from banks and customers fell by €64 million to €907 million (first half of 2021: €971 million), which included a decrease of €140 million in interest expense on home savings deposits as a result of the reversal of provisions relating to building society operations. There was a positive change in interest income from portfolio hedges of interest-rate risk, which improved by €18 million to €44 million (first half of 2021: €26 million). By contrast, interest expense on debt certificates issued including bonds went up by €146 million to €243 million (first half of 2021: €97 million). This was mainly due to expansion of the portfolio of issued commercial paper and the early redemption of issued bonds and commercial paper that had been acquired by entities in the DZ BANK Group other than the issuer.

Net fee and commission income fell by €232 million to €1,364 million (first half of 2021: €1,596 million).

Net fee and commission income from securities business decreased by €271 million to €1,176 million (first half of 2021: €1,447 million). This was primarily due to the €354 million reduction in performance-related management fees to €18 million (first half of 2021: €372 million) in the Union Investment Group. However, the Union Investment Group’s volume-related net income contribution advanced by €90 million to €917 million (first half of 2021: €827 million) on the back of an increase in the average level of assets under management. In addition, net fee and commission income from asset management improved by €12 million to €65 million (first half of 2021: €53 million), lending and trust activities by €21 million to €40 million (first half of 2021: €19 million), and building society operations by €9 million to an expense of €6 million (first half of 2021: expense of €15 million).

Gains and losses on trading activities in the first six months of 2022 came to a net gain of €359 million compared with a net gain of €6 million for the prior-year period. This change was due to the significant volatility of market prices, which – as a result of risk management – had opposing effects on gains and losses on non-derivative financial instruments and embedded derivatives on the one hand and on gains and losses on derivatives on the other. Gains and losses on non-derivative financial instruments and embedded derivatives improved by €3,984 million to a net gain of €3,628 million (first half of 2021: net loss of €356 million). By contrast, gains and losses on derivatives deteriorated by €3,687 million to a net loss of €3,387 million (first half of 2021: net gain of €300 million). The net gain under gains and losses on exchange differences grew by €56 million to €118 million (first half of 2021: net gain of €62 million).

Gains and losses on investments declined by €90 million to a net loss of €53 million (first half of 2021: net gain of €37 million). Within this figure, gains and losses on the disposal of bonds and other fixed-income securities deteriorated by €46 million to a net loss of €14 million (first half of 2021: net gain of €32 million) – predominantly as a result of sales of securities in the BSH subgroup – and gains and losses on the disposal of shares and other variable-yield securities deteriorated by €48 million to a net loss of €49 million (first half of 2021: net loss of €1 million), primarily due to the disposal of investment fund units from the Union Investment Group’s own-account investments.

Other gains and losses on valuation of financial instruments amounted to a net gain of €105 million (first half of 2021: net gain of €234 million). This year-on-year change was attributable to the deterioration in gains and losses on financial assets mandatorily measured at fair value through profit or loss of €76 million to a net loss of €50 million (first half of 2021: net gain of €26 million), in gains and losses on financial instruments designated as at fair value through profit or loss of €34 million to a net gain of €82 million (first half of 2021: net gain of €116 million), in gains and losses on derivatives used for purposes other than trading of €10 million to a net gain of €66 million (first half of 2021: net gain of €76 million), and in gains and losses from fair value hedge accounting of €9 million to a net gain of €6 million (first half of 2021: net gain of €15 million).

Net income from insurance business comprises premiums earned, gains and losses on investments held by insurance companies and other insurance company gains and losses, insurance benefit payments, insurance business operating expenses, and gains and losses from the derecognition of financial assets measured at amortized cost in the insurance business.

In the first half of 2022, this figure went down by €497 million to €25 million (first half of 2021: €522 million). The reduction was primarily due to the deterioration – driven by the situation in the capital markets – in gains and losses on investments held by insurance companies and other insurance company gains and losses of €6,097 million to a net loss of €3,364 million (first half of 2021: net gain of €2,733 million). This deterioration was partly offset by a €5,391 million fall in insurance benefit payments to €4,735 million (first half of 2021: €10,126 million). Premiums earned rose by €249 million to €9,746 million (first half of 2021: €9,497 million). In the non-life insurance business, the overall claims rate was above the level of the prior-year period, as were the rates for major claims, basic claims, and natural disaster claims. Expenses totaled €120 million from storms Nadia, Ylenia, Zeynep, and Antonia and €32 million from storms Emmelinde and Finja, with a corresponding impact on natural disaster claims during the reporting period. In the inward reinsurance business, the series of winter storms in Europe resulted in claims incurred of €40 million. The claims in connection with flooding in the South African province of KwaZulu-Natal came to €65 million.

Loss allowances amounted to a net addition of €60 million (first half of 2021: net reversal of €114 million). Loss allowances for loans and advances to customers amounted to a net addition of €42 million (first half of 2021: net reversal of €69 million). The net addition to loss allowances for loans and advances to banks came to €13 million (first half of 2021: net reversal of €20 million). The net addition to other loss allowances for loans and advances was €7 million (first half of 2021: net reversal of €9 million). The net reversal of loss allowances for investments amounted to €3 million (first half of 2021: net reversal of €15 million).

Further disclosures on the nature and extent of risks arising from financial instruments and insurance contracts can be found in note 46 in the notes to the interim consolidated financial statements.

Administrative expenses increased by €100 million to €2,242 million (first half of 2021: €2,142 million). Within this figure, staff expenses advanced to €1,001 million, compared with €966 million in the first half of 2021. This increase was predominantly due to pay rises and appointments. Other administrative expenses climbed to €1,240 million (first half of 2021: €1,177 million), mainly because of increased contributions to the bank levy and higher expenses incurred in connection with consultancy, IT, public relations, and marketing.

Other net operating income amounted to €156 million (first half of 2021: €73 million). Income from the reversal of provisions and accruals rose by €35 million to €72 million (first half of 2021: €37 million), whereas expenses for restructuring fell by €21 million to €2 million (first half of 2021: €23 million). Residual other net operating income went up by €45 million to €46 million (first half of 2021: €1 million). This was partly due to the recognition of cancelled, non-interest-bearing home savings deposits, which amounted to €28 million (first half of 2021: €0 million). There was a countervailing decline in gains and losses on non-current assets and disposal groups classified as held for sale, with the net gain falling by €25 million to €27 million (first half of 2021: net gain of €52 million).

Profit before taxes for the first half of 2022 stood at €1,141 million, compared with €1,829 million in the first half of 2021.

The **cost/income ratio** (i.e. the ratio of administrative expenses to operating income) for the reporting period came to 65.1 percent (first half of 2021: 55.5 percent).

The **regulatory return on risk-adjusted capital (RORAC)** was 11.7 percent (first half of 2021: 18.4 percent).

Income taxes amounted to €360 million in the period under review (first half of 2021: €522 million).

Net profit for the first half of 2022 was €781 million, compared with €1,307 million for the first half of 2021.

3.2 Financial performance in detail

The following sections describe the details of the financial performance of the DZ BANK Group's operating segments in the first half of 2022 compared with the corresponding period of 2021.

3.2.1 BSH

Net interest income in the BSH subgroup advanced by €126 million to €419 million (first half of 2021: €293 million).

Net interest income arising on investments declined by €42 million to €138 million (first half of 2021: €180 million) because past investments had been carried out at low capital market rates and because the volume of securities decreased in the first half of 2022.

There was a countervailing impact from interest expense on home savings deposits, which fell by €189 million to €182 million (first half of 2021: €371 million). Of this fall, €140 million was attributable to the reversal of provisions relating to building society operations and €49 million to the lower interest rates applicable to current tariffs.

In the case of loans issued under advance or interim financing arrangements and other building loans, income amounted to €528 million (first half of 2021: €542 million). Income from home savings loans amounted to €34 million (first half of 2021: €35 million).

BSH incorporates the fees, commissions, and transaction costs directly assignable to the acquisition of home savings contracts and loan agreements into the effective interest method applied to home savings deposits and building loans. The deferred charges arising each year from fees, commissions, and transaction costs are amortized to profit or loss under interest cost over the maturity of the home savings deposits and building loans. In the first half of 2022, the amortization amount included in interest cost was €104 million (first half of 2021: €98 million).

Net fee and commission income amounted to €13 million (first half of 2021: €1 million).

In the home savings business, BSH entered into new business with a volume of €16.1 billion (first half of 2021: €14.7 billion) as a result of signing approximately 219 thousand new home savings contracts (first half of 2021: 291 thousand).

In the home finance business, the realized volume of new business in Germany amounted to €9.3 billion (first half of 2021: €9.3 billion). This figure includes finance of €4.8 billion referred to institutions in the cooperative financial network (first half of 2021: €4.4 billion). In addition, home savings loans and bridging loans from BSH and other referrals amounted to €1.1 billion (first half of 2021: €0.9 billion).

Gains and losses on investments amounted to a net loss of €46 million (first half of 2021: net gain of €13 million). The main influence on this figure was the disposal of securities.

Loss allowances amounted to a total net addition of €6 million (first half of 2021: net addition of €19 million). The elevated figure for loss allowances in the prior-year period had been primarily due to the update to the scoring systems used for the building society's business.

Administrative expenses increased by €1 million to €258 million (first half of 2021: €257 million). Within this figure, staff expenses came to €129 million (first half of 2021: €117 million) and other administrative expenses (including depreciation and amortization) to €129 million (first half of 2021: €140 million).

Other net operating income went up by €24 million to €42 million (first half of 2021: €18 million). This year-on-year improvement was primarily due to the recognition of cancelled, non-interest-bearing home savings deposits, which amounted to €28 million (first half of 2021: €0 million).

Profit before taxes rose by €114 million to €168 million (first half of 2021: €54 million) as a consequence of the changes described above.

The **cost/income ratio** in the period under review came to 59.6 percent (first half of 2021: 78.1 percent).

Regulatory RORAC was 25.9 percent (first half of 2021: 8.3 percent).

3.2.2 R+V

Premiums earned went up by €249 million to €9,746 million (first half of 2021: €9,497 million), thanks to the tight integration of the R+V subgroup into the cooperative financial network.

Premium income earned in the life insurance and health insurance business grew by a total of €76 million to €4,800 million (first half of 2021: €4,724 million).

Premiums earned from the life insurance business rose by €4 million to €4,371 million.

Business involving unit-linked products and credit insurance policies expanded, whereas the new guarantees, occupational pension, and traditional product businesses contracted.

In the health insurance business, net premiums earned rose by €72 million to €429 million, with notably strong growth in the private supplementary health insurance and full health insurance product groups, but a fall in premiums for international health insurance.

In the non-life insurance business, premium income earned grew by €161 million to €3,456 million, with most of this growth being generated from corporate customer business, motor vehicle insurance, and banks/deposit business.

Premiums earned from the inward reinsurance business rose by €12 million to €1,491 million. Europe remained the largest market for inward reinsurance. Growth was generated from the fire and property classes of insurance, from loan/deposit business, and from other products. By contrast, premiums earned in the motor vehicle insurance product group went down.

Gains and losses on investments held by insurance companies and other insurance company gains and losses deteriorated markedly by €6,092 million to a net loss of €3,333 million (first half of 2021: net gain of €2,759 million). This figure includes the fair value-based gains and losses on investments held by insurance companies in respect of insurance products constituting unit-linked life insurance for the account and at the risk of employees, employers, and holders of life insurance policies (unit-linked contracts). The gains and losses on investments held by insurance companies attributable to unit-linked contract products generally have no impact on profit/loss before taxes, because this line item is matched by an insurance liability addition or reversal of the same amount. The net loss on investments held by insurance companies, excluding unit-linked contracts, amounted to €1,209 million in the reporting period (first half of 2021: net gain of €1,401 million).

The level of long-term interest rates was far higher than in the first half of 2021. The ten-year swap rate was 2.16 percent as at June 30, 2022 (June 30, 2021: 0.10 percent). The movement of spreads on interest-bearing securities had a negative impact on gains and losses on investments held by insurance companies and other insurance company gains and losses. Spreads widened during the reporting period. A weighted spread calculated in accordance with R+V's portfolio structure stood at 100.2 points as at June 30, 2022 (December 31, 2021: 66.7 points). In the comparative period, this spread had risen from 50.3 points as at December 31, 2020 to 54.0 points as at June 30, 2021.

During the reporting period, equity markets relevant to R+V performed worse than in the first half of 2021. For example, the EURO STOXX 50, a share index comprising 50 large listed companies in the eurozone, saw a fall of 843 points from the start of 2022, closing the reporting period on 3,455 points. In the first half of 2021, this index had risen by 511 points. Movements in exchange rates between the euro and various currencies were generally more favorable in the first half of 2022 than in the prior-year period. For example, the US dollar/euro exchange rate on June 30, 2022 was 0.957, compared with 0.879 as at December 31, 2021. In the first half of 2021, the US dollar/euro exchange rate had changed from 0.817 as at December 31, 2020 to 0.843 on June 30, 2021.

Overall, these trends in the reporting period essentially resulted in a €6,218 million negative change – resulting from the effects of changes in negative fair values – in unrealized gains and losses to a net loss of €4,732 million (first half of 2021: net gain of €1,486 million), a €613 decrease in the contribution to earnings from the derecognition of investments to a loss of €610 million (first half of 2021: gain of €3 million), and a €14 million decline in the balance of depreciation, amortization, impairment losses, and reversals of impairment losses to a net expense of €59 million (first half of 2021: net expense of €45 million). In addition, foreign-exchange gains and losses improved by €346 million to a net gain of €681 million (first half of 2021: net gain of €335 million) and net income under current income and expense rose by €92 million to €1,136 million (first half of 2021: €1,044 million). Other insurance gains and losses and non-insurance gains and losses improved by €317 million to a net gain of €252 million (first half of 2021: net loss of €65 million).

Owing to the inclusion of provisions for premium refunds (particularly in the life insurance and health insurance business) and claims by policyholders in the fund-linked life insurance business, the change in the level of gains and losses on investments held by insurance companies also affected the 'insurance benefit payments' line item presented below.

Insurance benefit payments amounted to €4,735 million, which equated to a fall of €5,391 million compared with the corresponding figure of €10,126 million in the prior-year period.

The change in insurance benefit payments reflected both the trend in net premiums earned and the policyholder participation in gains and losses on investments held by insurance companies.

At the companies offering personal insurance, the changes in insurance benefit payments were in line with the change in premium income and in gains and losses on investments held by insurance companies and other insurance company gains and losses. For example, a large part of the net loss of €3,800 million under gains and losses on investments held by insurance companies from unit-linked life insurance was also reflected in insurance benefit payments. The decrease in insurance benefit payments was also attributable to the change in premium refunds. This was due to the change, recognized in profit or loss, in the provision for premium refunds and led to net income of €1,410 million in the reporting period. There was a reversal of €109 million from the supplementary change-in-discount-rate reserve (first half of 2021: reversal of €103 million).

In the non-life insurance business, the overall claims rate was above the level of the prior-year period, as were the rates for major claims, basic claims, and natural disaster claims. Expenses totaled €120 million from storms

Nadia, Ylenia, Zeynep, and Antonia and €32 million from storms Emmelinde and Finja, with a corresponding impact on natural disaster claims during the reporting period.

In the inward reinsurance business, the net claims ratio was 71.9 percent (first half of 2021: 71.3 percent). The ratios for basic and medium claims were below those of the prior-year period. By contrast, the ratio for major claims went up. The series of winter storms in Europe resulted in claims incurred of €40 million. The claims in connection with flooding in the South African province of KwaZulu-Natal came to €65 million. As at the reporting date, two derecho storms in the United States were reflected in the ratio, each in an amount of €30 million (a derecho is a widespread and long-lived straight-line wind storm).

Insurance business operating expenses incurred in the course of ordinary business activities went up by €65 million to €1,710 million (first half of 2021: €1,645 million). The largest portion of the change was attributable to the non-life division, which saw an increase of €50 million. Expenses also rose in the inward reinsurance business, by €10 million. The life/health division accounted for an increase of €5 million.

As a result of the factors described above, there was a **loss before taxes** of €30 million, which represented a deterioration of €512 million compared with the profit before taxes of €482 million for the first half of 2021.

Regulatory RORAC was minus 0.6 percent (first half of 2021: 9.5 percent).

3.2.3 TeamBank

Net interest income amounted to €247 million, which was up year on year (first half of 2021: €241 million). The average volume of consumer finance in the reporting period came to €9,110 million (first half of 2021: €8,822 million). The volume of consumer finance stood at €9,252 million as at June 30, 2022 (December 31, 2021: €8,967 million; June 30, 2021: €8,826 million).

As at June 30, 2022, TeamBank was working with 698 (December 31, 2021: 701) of Germany's 767 (December 31, 2021: 772) cooperative banks and with 154 (December 31, 2021: 148) partner banks in Austria. In addition, more than 34 thousand (first half of 2021: 32 thousand) members of cooperative banks benefited from favorable terms and conditions in the first six months of 2022.

Despite a deterioration in consumer sentiment, the business model of a consumer finance provider constructed on the basis of the easyCredit-Liquiditätsberater advisory concept, which includes a financial compass created individually for each customer and provides both the customer and the advisor with transparency about the credit decision reached, enabled TeamBank to maintain the level of loans and advances to customers, which amounted to €9,501 million as at June 30, 2022 (December 31, 2021: €9,208 million). The number of customers rose to 1,003 thousand as at June 30, 2022 (December 31, 2021: 984 thousand). TeamBank had made credit facilities from easyCredit-Finanzreserve totaling €2,870 million available to its customers as at June 30, 2022 (December 31, 2021: €2,555 million). In the period under review, 20.8 percent (first half of 2021: 16.9 percent) of new business was generated through easyCredit-Finanzreserve.

Net fee and commission income amounted to €8 million and was therefore €9 million better than the corresponding net expense of €1 million in the prior-year period. This increase was due, in particular, to a rise in fee and commission income from credit insurance policies as a result of the growth of new business.

The net addition to **loss allowances** amounted to €53 million, which was up by €31 million compared with the prior-year figure of €22 million. The rise in loss allowances was primarily due to customers' poorer payment history (higher proportion of receivables overdue or in default, higher termination and write-off rates, and increase in installment plan changes) compared with the first half of 2021. Another factor was the proportion of receivables overdue in the prior-year period, which had been unusually low for the time of year, and the exceptionally low expense for loss allowances, especially during and after the lockdown at the start of 2021. There was a countervailing effect from adjustments to the model-driven calculation methods, which had a positive impact of around €5 million, and from the reversal of post-model adjustments in an amount of €15 million.

Administrative expenses increased by €3 million to €141 million (first half of 2021: €138 million). Staff expenses rose by €1 million to €53 million (first half of 2021: €52 million). Other administrative expenses went up by €2 million to €88 million (first half of 2021: €86 million).

Profit before taxes amounted to €68 million. The decrease of €16 million compared with the figure of €84 million reported for the first half of 2021 was a consequence of the factors described above.

TeamBank's **cost/income ratio** came to 53.8 percent (first half of 2021: 56.3 percent).

Regulatory RORAC was 22.9 percent (first half of 2021: 29.9 percent).

3.2.4 UMH

Net fee and commission income fell by €264 million to €1,000 million (first half of 2021: €1,264 million). The change in net fee and commission income was predominantly due to the factors described below.

Because of the rise in the average assets under management of the Union Investment Group, which climbed by €34.2 billion to €437.5 billion (first half of 2021: €403.3 billion), the volume-related contribution to net fee and commission income rose to €917 million (first half of 2021: €827 million).

The assets under management of the Union Investment Group comprise the assets and the securities portfolios measured at their current market value, also referred to as free assets or asset management, for which Union Investment offers investment recommendations (advisory) or bears responsibility for portfolio management (insourcing). The assets are managed both for third parties and in the name of the group. Changes in the managed assets occur as a result of factors such as net inflows, changes in securities prices, and exchange-rate effects.

Net income from performance-related management fees amounted to €18 million (first half of 2021: €372 million). The decrease was largely the result of high-volume funds not fulfilling the conditions for the transfer of a performance-related management fee in the first half of 2022. Income from real estate fund transaction fees came to €20 million in the period under review (first half of 2021: €22 million).

Union Investment generated net inflows from its retail business of €8.1 billion (first half of 2021: €9.7 billion) in collaboration with the local cooperative banks.

The number of traditional fund-linked savings plans, which are used by retail customers as investments aimed at long-term capital accumulation, stood at 3.8 million contracts as at June 30, 2022, with an increase in the 12-month savings volume to €7.6 billion (December 31, 2021: €7.4 billion).

The total assets in the portfolio of Riester pension products amounted to €24.0 billion (December 31, 2021: €27.5 billion).

The number of fund-linked savings plans managed by Union Investment in its retail business as at June 30, 2022 totaled 6.5 million (December 31, 2021: 6.4 million). These plans included contracts under employer-funded capital formation schemes as well as the traditional savings plans and Riester pension contracts referred to above.

The open-ended real estate funds offered by the Union Investment Group, which are an intrinsic-value-based component of the investment mix, generated net new business totaling €1.8 billion in the first half of 2022 (first half of 2021: €1.4 billion).

Assets under management in the PrivatFonds family amounted to €24.0 billion as at June 30, 2022 (December 31, 2021: €27.2 billion).

In its institutional business, the Union Investment Group generated net inflows amounting to €1.5 billion (first half of 2021: €14.7 billion).

The portfolio of sustainably managed funds stood at €125.0 billion (December 31, 2021: €125.6 billion). This portfolio includes open-ended real estate funds with a value of €40.4 billion (December 31, 2021: €37.5 billion) that have been managed since November 1, 2021 as products that comply with article 8 of the Sustainable Finance Disclosure Regulation (SFDR).

Gains and losses on investments amounted to a net loss of €49 million (first half of 2021: net loss of €1 million), largely due to the net loss realized on the disposal of investment fund units from Union Investment's own-account investments.

Other gains and losses on valuation of financial instruments deteriorated by €130 million to a net loss of €56 million (first half of 2021: net gain of €74 million), which was largely attributable to the net loss of €20 million from the valuation of guarantee commitments (first half of 2021: net income of €63 million) and the net loss of €36 million arising on the valuation of Union Investment's own-account investments (first half of 2021: net gain of €11 million).

Administrative expenses increased by €61 million to €564 million (first half of 2021: €503 million). Staff expenses went up by €17 million to €276 million (first half of 2021: €259 million) owing to higher average pay and appointments to new and vacant posts. Other administrative expenses climbed by €43 million to €287 million (first half of 2021: €244 million), mainly because of higher expenses incurred in connection with consultancy, IT, public relations, and marketing.

Other net operating income amounted to €39 million (first half of 2021: net expense of €14 million). This change was mainly attributable to income resulting from the remeasurement of provisions. In the prior-year period, there had been expenses resulting from the recognition of provisions that were reversed in the reporting period following the remeasurement.

Based on the changes described above, **profit before taxes** amounted to €371 million (first half of 2021: €825 million).

The **cost/income ratio** came to 60.4 percent in the first half of this year (first half of 2021: 37.9 percent).

Regulatory RORAC was greater than 100.0 percent (first half of 2021: greater than 100.0 percent).

3.2.5 DZ BANK – CICB

In the DZ BANK – CICB operating segment, internal management reporting is used as the basis for presentation of the income statement, which means that the figures include internal transactions. These internal transactions are eliminated in the Other/Consolidation segment so that the net profit for the group is reported correctly.

Net interest income is primarily attributable to the lending business portfolios (Corporate Banking business line and a separately managed real estate lending portfolio), the portfolios from the capital markets business, and the long-term equity investments allocated to the central institution and corporate bank. Net interest income decreased by €27 million to €474 million (first half of 2021: €501 million).

In the first half of 2022, the allocation of bonus interest resulting from participation in the TLTRO III program was changed from decentralized distribution among the business lines to centralized disclosure. Consequently, the following information on the business lines does not include earnings from TLTRO III and the figures for the prior-year period have been restated accordingly. The TLTRO III program's impact on earnings is disclosed separately below.

In the Corporate Banking business line, net interest income went up by €22 million to €278 million (first half of 2021: €256 million).

The net interest income in the four regional corporate customer divisions plus Central Corporate Banking increased to €154 million (first half of 2021: €139 million). The €15 million rise in the operating lending business was due to the growth of the lending volume.

Net interest income in the Structured Finance division amounted to €89 million, an increase of €4 million compared with the figure for the first half of 2021 of €85 million. The figure for the first six months of this year was boosted by business activities that resulted in a greater lending volume in all product units and by the significant appreciation of the US dollar.

In the Investment Promotion division, net interest income advanced by €3 million to €35 million (first half of 2021: €32 million). This year-on-year increase primarily resulted from substantial portfolio growth in the previous year in response to high demand for residential development loans.

At €1 million, net interest income from the separately managed real estate lending portfolio was down compared with the figure of €9 million for the first half of 2021 due to the reduction in the size of portfolio caused by the transfer of some of its components to DZ HYP.

Net interest income from the Capital Markets business line swelled by €3 million to €68 million (first half of 2021: €65 million). This increase was thanks to the growth of business with institutional customers and the treasury portfolios.

Net interest income attributable to bonus interest resulting from participation in the TLTRO III program decreased by €18 million to €71 million (first half of 2021: €89 million). The figure for the prior-year period included the share of interest generated in the second half of 2020.

Other net interest income from loan administration fees advanced by €3 million to €14 million (first half of 2021: €11 million).

Income from profit-pooling, profit-transfer, and partial profit-transfer agreements, together with income from other shareholdings and current income from investments in subsidiaries, amounted to €41 million (first half of 2021: €71 million). The reduction compared with the first half of 2021 can be explained by lower income from long-term equity investments at VR Equitypartner GmbH, which fell by €42 million to €11 million. By contrast, income from long-term equity investments went up by €6 million to €6 million at Deutsche WertpapierService Bank AG, by €4 million to €4 million at KBIH Beteiligungsgesellschaft für Industrie und Handel mbH, and by €2 million to €4 million at Banco Cooperativo Español S.A.

Net fee and commission income rose by €4 million to €262 million (first half of 2021: €258 million).

The principal sources of income were service fees in the Corporate Banking business line (in particular, from lending business including guarantees and international business), in the Capital Markets business line (mainly from securities issuance and brokerage business, agents' fees, transactions on futures and options exchanges, financial services, and the provision of information), and in the Transaction Banking business line (primarily from payments processing including credit card processing, safe custody, and gains/losses from the currency service business).

In the Corporate Banking business line, net fee and commission income was €17 million higher than in the prior-year period at €89 million (first half of 2021: €72 million). Of this increase, €8 million was attributable to fees and commissions in connection with loan processing, €6 million to fees and commission on loans of the New York branch, and €3 million to the syndicated loan business.

In the Capital Markets business line, the contribution to net fee and commission income declined by €8 million to €128 million (first half of 2021: €136 million). Of particular note was the reduction in income from syndicated business and issuance business.

Net fee and commission income in the Transaction Banking business line was on a par with the prior-year period at €75 million (first half of 2021: €74 million).

As part of service procurement arrangements, DZ BANK has transferred processing services in the lending business to Schwäbisch Hall Kreditservice, in the payments processing business to equensWorldline SE and Cash Logistik Security AG, and in capital markets business/transaction banking to Deutsche WertpapierService Bank AG. The expenses arising in connection with obtaining services from the above external processing companies amounted to a total of €101 million (first half of 2021: €93 million) and were broken down and reported under the net fee and commission income for the business lines as follows: Corporate Banking €5 million (first half of 2021: €4 million) and Capital Markets/Transaction Banking €96 million (first half of 2021: €89 million).

Aside from the aforementioned business lines, net fee and commission income from other financial services amounted to a greater net expense of €30 million in the reporting period (first half of 2021: net expense of €24 million). This figure included the reclassification of loan administration fees of €15 million (first half of 2021: €11 million) and the expense of €17 million as a result of passing on the bonus interest from the TLTRO III program to the participating group subsidiaries (first half of 2021: €15 million).

Gains and losses on trading activities amounted to a net gain of €347 million (first half of 2021: net loss of €41 million).

Gains and losses on trading activities reflect the business activity of the Capital Markets business line and gains and losses on money market business entered into for trading purposes (mainly repurchase agreements) and on derivatives of the Group Treasury division ('financial assets and liabilities measured at fair value through profit or loss' (fair value PL)). The fair value gains and losses on financial assets and liabilities designated as at fair value through profit or loss (fair value option) are – apart from credit rating effects – also included in gains and losses on trading activities. The credit-rating-related effects are included in other gains and losses on valuation of financial instruments.

Whereas there had been a significant negative impact from IFRS-related effects in the prior-year period, IFRS-related effects made a positive contribution to gains and losses on trading activities in the reporting period. In the first half of 2022, the key factors behind this figure included the fair value gains and losses relating to own issues in the fair value PL and fair value option subcategories. Whereas mark-ups had narrowed in the prior-year period, mainly due to calmer conditions in the bond markets following the COVID-19 crisis (first half of 2021: loss of €159 million), these mark-ups widened again in the first half of 2022 due to the geopolitical crisis, which gave rise to a net gain of €42 million for these issues under fair value gains and losses.

In the prior-year period, there had also been an adverse impact from derivative hedging transactions that were related to group finance and were therefore not permitted to be included in hedge accounting. Optimization of the effectiveness of hedge accounting enabled these effects to be reduced in the first half of 2022, despite the volatile interest-rate environment. As a result, the adverse impact seen in the first half of 2021 gave way to positive effects in the first half of 2022.

To a lesser extent, ineffectiveness in hedge accounting also boosted earnings. This income was matched by an expense in the same amount recognized under other gains and losses on valuation of financial instruments.

Gains and losses on operating trading activities in the Capital Markets business line amounted to a net gain of €207 million, compared with €363 million in the prior-year period.

The uncertainties stemming from the war in Ukraine, combined with existing and impending supply bottlenecks as well as high inflation, resulted in a downturn in the capital markets and thus to write-downs. The assessment of risk changed considerably once again in May and June. This led to a widening of credit spreads, especially on bonds from corporates and banks. Overall, there was significant price volatility in the markets during the first six months of 2022. This affected all asset classes (interest rates, credit, equities, foreign exchange, and commodities) and had an impact on gains and losses on trading activities.

Business with institutional customers was brisk in the first half of 2022, so income was higher than in the prior-year period. The increase was driven by product demand from cooperative banks and an uptick in cross-selling to corporate customers. By contrast, product sales to institutional investors were down compared with the prior-year period.

Trading with structured interest-rate products had a stabilizing effect. Sales of interest-rate structures increased – with a corresponding rise in income in this product segment – thanks to the elevated market volatility. Business in interest-rate derivatives and foreign-exchange trading more than made up for the decline in bond trading. Customers protected themselves against rising interest rates and against significant fluctuations in exchange rates. In the case of interest-rate derivatives, this resulted in an increase in income across all customer groups. In foreign-exchange trading, the rise in income was predominantly driven by cross-selling to corporate customers.

Gains and losses on investments deteriorated by €25 million to a net loss of €1 million (first half of 2021: net gain of €24 million). The net loss in the reporting period resulted from losses of €76 million from the sale of securities in the category 'fair value through other comprehensive income' combined with gains of €75 million arising from the termination of hedges accounted for in the category 'fair value through other comprehensive income' and held in the fair value hedge accounting portfolio.

Other gains and losses on valuation of financial instruments declined to a net loss of €6 million (first half of 2021: net gain of €61 million). Within this figure, the valuation of financial instruments measured at fair value through profit or loss declined by €15 million to a net loss of €10 million (first half of 2021: net gain of €5 million), credit-risk-related measurement effects relating to financial assets measured using the fair value option declined by €9 million to a net gain of €21 million (first half of 2021: net gain of €30 million), and the effects of ineffectiveness in hedge accounting declined by €43 million to a net loss of €17 million (first half of 2021: net gain of €26 million).

Gains and losses from the derecognition of financial assets measured at amortized cost improved by €2 million to a net gain of €5 million (first half of 2021: net gain of €3 million).

Loss allowances amounted to a net addition of €44 million (first half of 2021: net reversal of €78 million). Within this figure, the net additions in the lending business and in respect of investments amounted to €61 million. Of this total, net reversals of €3 million related to loss allowances in stage 1, net additions of €60 million related to loss allowances in stage 2, and net additions of €4 million related to loss allowances in stage 3. The net reversal in respect of recoveries on loans and advances previously impaired, directly recognized impairment losses, other gains and losses on POCI assets, and additions to other provisions for loans and advances was €17 million (first half of 2021: net reversal of €37 million).

Of the net additions in stage 2, €18 million was required because the anticipated macroeconomic conditions were included in the calculation, in particular by adjusting the model-based default probability profiles (referred to as shift factors), which are taken into account when determining the expected losses.

Furthermore, loss allowances were increased in stages 2 and 3 owing to geopolitical risks and changes in the credit ratings of individual counterparties. In stage 3, reversals in respect of various counterparties had a beneficial impact.

In the first half of 2021, loss allowances had been influenced by reversals in stage 3 that were largely the result of the scaling back of an individual exposure of €51 million.

Administrative expenses increased by €15 million to €679 million (first half of 2021: €664 million).

Staff expenses fell by €2 million to €296 million (first half of 2021: €298 million) due to a decrease in the number of employees.

Other administrative expenses went up by €17 million to €383 million (first half of 2021: €366 million). Within this figure, the expenses for the restructuring fund for banks (bank levy) and contributions to the BVR protection scheme rose by €5 million to €87 million (first half of 2021: €82 million).

Furthermore, IT costs increased by €6 million to €91 million (first half of 2021: €85 million), office expenses by €3 million to €14 million (first half of 2021: €11 million), and consultancy expenses by €2 million to €83 million (first half of 2021: €81 million). The depreciation and amortization charges included in other administrative expenses went down by €2 million to €38 million (first half of 2021: €40 million). The breakdown of these charges was as follows: depreciation of right-of-use assets €15 million (first half of 2021: €17 million), depreciation of property, plant and equipment, and investment property €15 million (first half of 2021: €13 million), and amortization of other intangible assets €8 million (first half of 2021: €10 million).

Other net operating income amounting to €12 million (first half of 2021: net expense of €5 million) included income from the reversals of provisions and accruals of €20 million (first half of 2021: €15 million) and countervailing expenses for paydirekt of €6 million (first half of 2021: €8 million).

Profit before taxes amounted to €369 million in the reporting period, which was €154 million higher than the figure of €215 million reported for the comparative period.

The **cost/income ratio** came to 62.1 percent in the first half of 2022 (first half of 2021: 82.9 percent).

Regulatory RORAC was 12.8 percent (first half of 2021: 8.1 percent).

3.2.6 DZ HYP

At €387 million, the **net interest income** of DZ HYP was €23 million higher than in the prior-year period (first half of 2021: €364 million). DZ HYP's participation in the ECB's TLTRO III program gave rise to bonus interest of €7 million during the reporting period (first half of 2021: €7 million).

The rise in net interest income was mainly the result of portfolio growth. The volume of real estate loans swelled by €1,976 million to €56,116 million (June 30, 2021: €54,140 million). The volume of new business (including public-sector finance) stood at €5,174 million (first half of 2021: €5,374 million).

In the corporate customer business, the volume of new business came to €3,964 million (first half of 2021: €3,705 million). The volume of new lending jointly generated with the local cooperative banks in this area of business amounted to €1,531 million (first half of 2021: €2,245 million). In the retail customer business, the volume of new commitments stood at €1,050 million (first half of 2021: €1,408 million). In the public-sector business, DZ HYP generated a new business volume of €160 million (first half of 2021: €261 million). Of this amount, €115 million (first half of 2021: €215 million) was attributable to business brokered through the cooperative banks and €45 million to direct business (first half of 2021: €46 million).

Net fee and commission income rose by €8 million to €12 million (first half of 2021: €4 million). Within this figure, income from participation in the DZ BANK Group's bidder group in the ECB's TLTRO III tender procedures amounted to €11 million (first half of 2021: €5 million).

Gains and losses on investments amounted to a net gain of €33 million (first half of 2021: net gain of €0 million). The net gain was predominantly influenced by the sale of Portuguese government bonds.

Other gains and losses on valuation of financial instruments improved by €3 million to a net gain of €73 million (first half of 2021: net gain of €70 million).

Loss allowances amounted to a net addition of €14 million (first half of 2021: net reversal of €1 million). This change was mainly due to adjustments to the model-driven calculation.

Administrative expenses increased by €5 million to €162 million (first half of 2021: €157 million). Staff expenses rose by €5 million to €53 million (first half of 2021: €48 million). Other administrative expenses held steady at €109 million (first half of 2021: €109 million).

Profit before taxes amounted to €335 million, which was up by €48 million compared with the figure for the prior-year period of €287 million as a consequence of the factors described above.

The **cost/income ratio** came to 31.7 percent (first half of 2021: 35.5 percent).

Regulatory RORAC was 48.8 percent (first half of 2021: 39.9 percent).

3.2.7 DZ PRIVATBANK

Net interest income at DZ PRIVATBANK rose by €6 million to €34 million (first half of 2021: €28 million), primarily thanks to higher income in the lending and money market businesses.

The average volume of guaranteed LuxCredit loans issued by DZ PRIVATBANK, which acts as the competence center for foreign-currency lending and investing in the interest-earning business, amounted to €5.1 billion (first half of 2021: €4.9 billion).

Net fee and commission income rose by €9 million to €112 million (first half of 2021: €103 million). The increase in net fee and commission income was mainly attributable to the larger contributions to income from the fund services business and private banking.

As at June 30, 2022, high-net-worth individuals' assets under management, which comprise the volume of securities, derivatives, and deposits of customers in the private banking business, amounted to €21.7 billion (June 30, 2021: €21.8 billion).

The value of funds under management amounted to €168.9 billion (June 30, 2021: €169.5 billion). The number of fund-related mandates was 571 (June 30, 2021: 540).

Administrative expenses increased by €12 million to €137 million (first half of 2021: €125 million). Staff expenses rose by €7 million to €76 million (first half of 2021: €69 million), predominantly due to the recognition of provisions for annual leave, the higher number of employees, the statutory index-linking of salaries, and pay rises. Other administrative expenses went up year on year to €62 million (first half of 2021: €56 million) due, in particular, to higher regulatory contributions, capital expenditure aiming at boosting the growth of the front-office divisions, and increased costs for IT, advertising, and consultancy.

Profit before taxes totaled €19 million (first half of 2021: €19 million).

The **cost/income ratio** came to 88.4 percent (first half of 2021: 86.8 percent).

Regulatory RORAC was 11.1 percent (first half of 2021: 11.4 percent).

3.2.8 VR Smart Finanz

Net interest income at VR Smart Finanz amounted to €58 million in the period under review (first half of 2021: €64 million).

In the first six months of 2022, new lending and object finance business did well as small and medium-sized enterprises (SMEs) once again showed a greater willingness to invest and stronger demand for loans. As a result, the volume of this business increased by approximately 7.4 percent year on year to €464 million (first half of 2021: €432 million). The first half of 2022 saw growing demand for object finance, especially the hire purchase solution 'VR Smart express', which registered year-on-year growth of 22.4 percent. There was also a sharp rise in new business involving the 'VR Smart flexibel' business loan to €135 million (first half of 2021: €70 million), although this was still below the pre-pandemic level.

The 'VR Smart flexibel' support loan, which was based on the 2020 special program of Germany's KfW development bank aimed at established and start-up companies, was discontinued on April 30, 2022 when the COVID-19 support program ended. In the period January 1 to April 30, 2022, new business involving the 'VR Smart flexibel' support loan totaled €25 million (first half of 2021: €122 million). Since the introduction of the 'VR Smart flexibel' support loan in March 2020, more than 19 thousand loans with a volume of around €700 million have been disbursed.

Net fee and commission income, which amounted to a net expense of €15 million (first half of 2021: net expense of €15 million), was predominantly influenced by the fees and commissions paid to the cooperative banks.

Despite the energy crisis, supply chain problems, and the ending of COVID-19 support, the risk situation remained unremarkable, with a healthy insolvency rate and low levels of loan defaults. Consequently, the expenses for **loss allowances** fell by €2 million to €3 million in the reporting period (first half of 2021: €5 million).

Administrative expenses continued to go down, falling by €3 million to €38 million (first half of 2021: €41 million). The reduction in headcount meant that staff expenses declined by €2 million to €22 million (first half of 2021: €24 million). Other administrative expenses decreased by €1 million to €16 million (first half of 2021: €17 million).

VR Smart Finanz's **profit before taxes** amounted to €3 million (first half of 2021: €0 million), largely as a consequence of the factors described above.

The **cost/income ratio** came to 88.4 percent (first half of 2021: 89.1 percent).

Regulatory RORAC was 3.5 percent (first half of 2021: 0.3 percent).

3.2.9 DVB

Net interest income in the DVB subgroup advanced by €16 million to €4 million (first half of 2021: net expense of €12 million).

The nominal volume of customer loans in the DVB subgroup stood at €0.9 billion as at June 30, 2022 (December 31, 2021: €1.6 billion).

Net fee and commission income amounted to €0 million (first half of 2021: €8 million). This decrease predominantly arose because of the absence of income following the reduction of the portfolio.

Other gains and losses on valuation of financial instruments amounted to a net gain of €101 million (first half of 2021: net gain of €24 million). The net gain for the reporting period mainly reflected the positive impact of net gains on valuation of derivatives used for purposes other than trading in an amount of €96 million (first half of 2021: €9 million).

Loss allowances amounted to a net reversal of €61 million in the period under review (first half of 2021: net reversal of €80 million), predominantly because of the progress made with scaling back the portfolio and the reversals in respect of individual exposures.

Administrative expenses amounted to €46 million (first half of 2021: €68 million), a year-on-year fall of €22 million. Staff expenses declined by €7 million to €21 million owing to the reduction in headcount (first half of 2021: €28 million). Other administrative expenses came to €25 million (first half of 2021: €40 million). The year-on-year reduction was primarily due to the decrease in consultancy costs and the lower bank levy.

Other net operating income amounted to €11 million (first half of 2021: €39 million). The figure for the prior-year figure had been heavily influenced by sale proceeds of €47 million in investment management.

Profit before taxes amounted to €131 million in the period under review (first half of 2021: €70 million), largely as a consequence of the factors described above.

The **cost/income ratio** in the first half of 2022 came to 40.4 percent (first half of 2021: greater than 100.0 percent).

Regulatory RORAC was greater than 100.0 percent (first half of 2021: greater than 100.0 percent).

3.2.10 DZ BANK – holding function

Net interest income includes the interest expense on subordinated capital, together with the net interest income from the funding of the main long-term equity investment carrying amounts and the investment of capital.

Net interest income amounted to a net expense of €9 million in the period under review (first half of 2021: net expense of €20 million).

The average level of subordinated capital for the twelve-month period to the end of the first half of 2022 was lower than in the prior-year period and the interest expense on this capital went down by €7 million to €17 million (first half of 2021: €24 million).

Net interest income from the funding of long-term equity investment carrying amounts and the investment of capital amounted to €8 million in the reporting period (first half of 2021: €4 million).

Administrative expenses increased by €14 million year on year to €133 million (first half of 2021: €119 million).

The expenses relating to the bank levy and contributions (in particular to the BVR protection scheme) rose by €11 million to €58 million (first half of 2021: €47 million). Furthermore, IT and project expenses increased from €28 million in the first six months of 2021 to €32 million in the period under review. Other expenses for the benefit of the group and local cooperative banks decreased by €1 million to €13 million (first half of 2021: €14 million). Expenses from the group management function were on a par with the prior-year period at €30 million (first half of 2021: €29 million).

3.2.11 Other/Consolidation

The consolidation-related adjustments shown under Other/Consolidation to reconcile operating segment profit/loss before taxes to consolidated profit/loss before taxes are attributable to the elimination of intragroup transactions and to the fact that investments in joint ventures and associates were accounted for using the equity method. Differences between the figures in internal management reporting and those reported in the consolidated financial statements that arise from the recognition of internal transactions in the DZ BANK – CICB operating segment are also eliminated.

The adjustments to net interest income were primarily the result of the elimination of intragroup dividend payments and profit distributions in connection with intragroup liabilities to dormant partners and were also attributable to the early redemption of issued bonds and commercial paper that had been acquired by entities in the DZ BANK Group other than the issuer. Internal transactions in the DZ BANK – CICB operating segment were also eliminated in net interest income and with offsetting entries under gains and losses on trading activities.

The figure under Other/Consolidation for net fee and commission income largely relates to the fee and commission business of TeamBank and the BSH subgroup with the R+V subgroup.

The remaining adjustments are mostly also attributable to the consolidation of income and expenses.

4 Net assets

As at June 30, 2022, the DZ BANK Group's **total assets** had increased by €31.4 billion, or 5.0 percent, to €658.7 billion (December 31, 2021: €627.3 billion). This increase was largely attributable to higher levels of total assets at DZ BANK – CICB (up by €54.5 billion), DZ PRIVATBANK (up by €2.9 billion), and BSH (up by €1.3 billion), whereas R+V (down by €15.5 billion), DZ HYP (down by €1.7 billion), and DVB (down by €1.6 billion) recorded a decrease.

The **volume of business** amounted to €1,163.3 billion (December 31, 2021: €1,166.3 billion). This figure comprised the total assets, the assets under management at UMH as at June 30, 2022 amounting to €415.6 billion (December 31, 2021: €454.1 billion), the financial guarantee contracts and loan commitments amounting to €86.7 billion (December 31, 2021: €82.6 billion), and the volume of trust activities amounting to €2.3 billion (December 31, 2021: €2.3 billion).

Cash and cash equivalents went up by €26.9 billion, or 31.3 percent, to €112.9 billion (December 31, 2021: €86.0 billion) as a result of the corresponding rise in balances with central banks. The increase was predominantly attributable to DZ BANK – CICB (liquidity management function).

Loans and advances to banks rose to €115.9 billion, an increase of €8.2 billion or 7.6 percent. Loans and advances to banks in Germany went up by €8.1 billion to €108.0 billion and loans and advances to foreign banks by €0.3 billion to €8.0 billion.

Loans and advances to customers amounted to €203.0 billion, which was €7.3 billion, or 3.7 percent, higher than the figure reported as at December 31, 2021. Within this figure, loans and advances to customers in Germany rose by €5.6 billion to €175.3 billion and loans and advances to customers outside Germany by €1.8 billion to €27.7 billion.

Financial assets held for trading amounted to €60.6 billion, an increase of €13.3 billion, or 28.1 percent, on the figure as at December 31, 2021. This change was largely attributable to a rise in money market placements (up by €10.1 billion), in derivatives (positive fair values) (up by €2.5 billion), and in bonds and other fixed-income securities (up by €1.0 billion).

Investments declined by €7.0 billion, or 13.4 percent, to €45.4 billion. The main reason for this change was the €6.1 billion decrease in the portfolio of bonds and other fixed-income securities.

Investments held by insurance companies fell by €17.2 billion (13.3 percent) to €111.9 billion (December 31, 2021: €129.1 billion). This was due to a €10.1 billion decrease in fixed-income securities to €51.3 billion, a €2.3 billion decrease in assets related to unit-linked contracts to €16.4 billion, a €1.8 billion decrease in registered bonds to €6.7 billion, and a €1.4 billion decrease in mortgage loans to €11.6 billion.

Deposits from banks as at June 30, 2022 amounted to €202.7 billion, which was €6.1 billion, or 3.1 percent, higher than the figure reported as at December 31, 2021. Deposits from foreign banks were up by €14.0 billion to €22.8 billion, whereas deposits from domestic banks fell by €8.0 billion to €179.8 billion. As at June 30, 2022, the DZ BANK Group had participated in the ECB's TLTRO III program with a total drawdown amount of €32.4 billion (December 31, 2021: €32.4 billion).

Deposits from customers grew by €24.7 billion, or 17.8 percent, to €163.7 billion (December 31, 2021: €139.0 billion). Deposits from foreign customers rose by €13.6 billion to €36.9 billion (December 31, 2021: €23.3 billion) and deposits from domestic customers by €11.1 billion to €126.8 billion (December 31, 2021: €115.7 billion).

At the end of the reporting half-year, the carrying amount of **debt certificates issued including bonds** was €90.7 billion (December 31, 2021: €79.7 billion). The rise of €11.0 billion was largely due to growth of €9.9 billion in the portfolio of other debt certificates issued to €22.5 billion while, at the same time, the portfolio of bonds issued expanded by €1.0 billion to €68.1 billion.

Financial liabilities held for trading went up by €8.3 billion, or 19.1 percent, to €51.7 billion (December 31, 2021: €43.4 billion). This change was largely attributable to a rise in derivatives (negative fair values) (up by €7.4 billion), in money market deposits (up by €1.8 billion), and in short positions (up by €1.0 billion). On the other hand, bonds issued declined by €1.7 billion to €20.5 billion.

Insurance liabilities went down by €11.6 billion, or 9.8 percent, to €107.3 billion (December 31, 2021: €118.9 billion). This was largely attributable to the decrease of €12.9 billion in the provision for premium refunds to €1.7 billion and the decrease of €1.2 billion in the reserve for unit-linked insurance contracts to €14.6 billion. However, the provision for unearned premiums grew by €1.0 billion to €2.2 billion, the benefit reserve by €1.0 billion to €75.2 billion, and the provision for claims outstanding by €0.5 billion to €16.9 billion.

As at June 30, 2022, **equity** stood at €24.3 billion (December 31, 2021: €28.7 billion). The decrease of €4.4 billion compared with the end of 2021 was largely due to the reduction in the reserve from other comprehensive income (down by €4.6 billion) due to the adverse impact of the change in interest rates in the first six months of 2022. This was partly offset by an increase of €0.3 billion in retained earnings, whereas non-controlling interests fell by €0.5 billion.

The **capital adequacy** of the DZ BANK financial conglomerate, the DZ BANK banking group, and the R+V Versicherung AG insurance group from a normative internal perspective is described in the risk report within this interim group management report (chapter VI.6.2).

5 Financial position

Liquidity management for the entities in the DZ BANK Group is carried out by the Group Treasury division at DZ BANK and on a decentralized basis by the individual subsidiaries. The individual entities are provided with funding by DZ BANK (group funding) or the entities exchange cash among themselves via DZ BANK (group clearing). Liquidity is managed within DZ BANK centrally by the Group Treasury division in Frankfurt and by the associated treasury units in its international branches, although Frankfurt has primary responsibility.

In the context of liquidity management, the DZ BANK Group distinguishes between operational liquidity (liquidity in the maturity band of up to one year) and structural liquidity (liquidity in the maturity band of more than one year).

The DZ BANK Group has a diversified funding base for **operational liquidity**. A considerable portion is accounted for by money market activities resulting from the cash-pooling function with the local cooperative banks. This enables cooperative banks to invest available liquidity with DZ BANK or obtain liquidity from DZ BANK if they need it. This regularly results in a liquidity surplus, which provides one of the main bases for short-term funding in the unsecured money markets. Corporate customers and institutional clients are another important source of funding for covering operational liquidity requirements.

For funding purposes, the DZ BANK Group also issues money market products based on debt certificates under a standardized groupwide multi-issuer euro commercial paper program through its offices and branches in Frankfurt, New York, Hong Kong, London, and Luxembourg. In addition, a US CP head office program is used centrally by DZ BANK Frankfurt.

Key repo and securities lending activities, together with the collateral management process, are managed centrally in DZ BANK's Group Treasury division as a basis for secured money market financing activities. Funding on the interbank market is not strategically important to the DZ BANK Group.

The DZ BANK Group also has at its disposal liquid securities that form part of its counterbalancing capacity. These securities can be used as collateral in monetary policy funding transactions with central banks, or in connection with secured funding in private markets.

Structural liquidity activities are used to manage and satisfy the long-term funding requirements (more than one year) of DZ BANK and, in coordination with the group entities, those of the DZ BANK Group.

As at June 30, 2022, the DZ BANK Group had participated in the ECB's TLTRO III program with a total nominal drawdown amount of €32.4 billion (December 31, 2021: €32.4 billion).

The Group Treasury division at DZ BANK draws up a groupwide **liquidity outlook** annually. This involves determining the funding requirements of the DZ BANK Group for the next financial year on the basis of the coordinated business plans of the individual companies. The liquidity outlook is updated throughout the year.

Monthly **structural analyses** of the various resources available on the liabilities side of DZ BANK's balance sheet are also conducted. The purpose of these analyses is to provide senior management with information that can then be used as the basis for actively managing the liability profile. In addition to this description of the funding structure, the risk report within this interim group management report includes disclosures on **liquidity adequacy from an economic perspective** (chapter VI.5.1). The year-on-year changes in cash flows from operating activities, investing activities, and financing activities are shown in the **statement of cash flows** in the interim consolidated financial statements.

III Events after the balance sheet date

There were no events of particular importance after the end of the first half of 2022.

IV Outlook

1 Economic conditions

1.1 Global economic trends

At present, the war in Ukraine is casting a shadow over the outlook for the global economy. Western countries imposed sanctions on Russia at an early stage and have gradually tightened them. The effects are being felt not only by Russia. The entire global economy is suffering from steep increases in the cost of commodities and high energy prices. Germany and other European Union (EU) countries are particularly badly affected because of their dependence on Russian energy supplies. Overall, the war and its consequences represent the biggest threat to economic growth in 2022. The forecasts provided below are based on the assumption that gas supplies from Russia will be repeatedly interrupted or reduced, resulting in high energy prices and hampering macroeconomic growth.

Besides high energy prices, factors that are likely to hold back the economy as a whole include the ongoing COVID-19 pandemic and related supply chain problems, elevated inflation rates, and rising interest rates. For example, different Omicron variants of coronavirus will trigger repeated regional waves of infection, with the risk of a seasonal spike in case numbers in the autumn. Although the risk to health from Omicron is regarded as lower than from the Delta variant, the pandemic will continue to weigh on the economy. Moreover, consumer spending is expected to be muted and supply chains will face fresh disruptions. China's zero-COVID policy, which involves the imposition of tight restrictions, is a particularly significant source of potential disruption to the international movement of goods. This will be compounded by war-related supply bottlenecks and price rises in the agricultural, industrial, grocery, and construction sectors.

Even before the outbreak of war, inflation rates had soared in the major industrialized nations owing to high energy prices and increased costs resulting from global supply chain problems. The war in Ukraine and the sanctions imposed by the West then drove prices even higher. Although DZ BANK expects inflation rates in most countries to have peaked over the summer, the overall increase in prices will probably weaken only slowly between now and the end of the year and will continue to depress the economy. Another factor is the sharp rise in interest rates, which is likely to be prolonged and marks the end of the phase of negative interest rates. Not only are higher interest rates making it more difficult for companies to invest but they also mean that buying a home is becoming prohibitively expensive for a growing number of households. Assuming that the conflict in Ukraine continues into 2023 and interest rates do not go back down, the growth of the global economy is expected to have weakened further by the end of this year.

1.2 Trends in the USA

US economic output shrank in the first half of 2022, primarily due to the exceptionally large trade deficit, the huge wave of Omicron cases at the start of the year, and the strong depletion of inventories across the economy in the second quarter. DZ BANK does not anticipate that the Federal Reserve's restrictive monetary policy will result in a continued period of recession for the US economy; in other words, the central bank is achieving its targeted 'soft landing'. This is indicated, in particular, by the healthy labor market and households' high levels of savings, which are still propping up consumer spending at present. At the same time, there are positive signals from the industry because the availability of components has recently improved.

However, the very high rates of inflation continue to be one of the biggest risks to the economy. Despite substantial wage increases, inflation is eating into households' real incomes. This is likely to be reflected in slower growth of consumer spending. The Federal Reserve is also taking a hard line against inflation. Interest-rate rises are resulting in worse funding terms for consumers and companies. DZ BANK continues to anticipate growth of 2.5 percent for 2022.

1.3 Trends in the eurozone

Contrary to the initial calculations, the eurozone's gross domestic product (GDP) increased markedly, by 0.5 percent, in the first quarter compared with the previous quarter. However, the growth figure was distorted by excessively large jumps within Ireland's statistics for investment in intellectual property and for imports and therefore does not reflect the actual underlying growth trend. The difficult conditions created by persistent supply problems, the uncertainty resulting from the war in Ukraine – including the aforementioned difficulties with gas supplies – and substantial inflationary pressure do not suggest that the situation will ease over the remainder of the year, even though the second quarter was also positive. Although a technical recession – two consecutive quarters of negative growth – can probably be avoided in the second half of 2022, the economic outlook remains bleak in other respects.

Overall, the forecast of weak economic growth and continued high levels of inflation can be described as a stagflationary trend. Another contributory factor is the protracted war in Ukraine. Moreover, the shift in monetary policy at the European Central Bank (ECB) is acting as a brake on economic growth. DZ BANK anticipates that the eurozone's economy will expand by 1.3 percent in 2022, despite an average inflation rate of 7.0 percent. This is partly due to the situation in the first half of 2022 described above.

1.4 Trends in Germany

Like other countries, Germany cannot escape high inflation, the global supply chain problems, the uncertainty resulting from the war in Ukraine – including the aforementioned difficulties with gas supplies – and the rise in interest rates after a policy of zero interest rates that has been in place for many years. This suggests that the economy is unlikely to stage a robust recovery any time soon.

Against this backdrop and in view of Germany's comparatively high dependency on gas supplies from Russia, DZ BANK anticipates a small increase in GDP of 1.0 percent for 2022. As measured by the Harmonized Index of Consumer Prices (HICP), Germany's inflation rate of 7.0 percent will be significantly higher than the ECB's target of 2.0 percent.

1.5 Trends in the financial sector

The conditions that have prevailed in the financial sector for some years, including structural change driven by competition, the agenda of regulatory reforms, and active support for companies' green transformation, have not changed compared with 2021. Detailed statements on these matters can be found in the outlook in the 2021 group management report.

Turning to interest-rate markets, monetary policy changed direction this year. The main central banks decided to depart from the expansionary monetary policy pursued in response to the financial crisis, although there are big differences between them in terms of the extent and timing of the monetary policy measures themselves. The Bank of England, for example, has been steadily raising its key interest rate since December 2021 – reaching 1.25 percent – in view of rising inflation rates. In addition to the discontinuation of its asset purchase programs, the US Federal Reserve increased interest rates four times to reach a range of 2.25 percent to 2.5 percent (as at July 31, 2022) and is planning further interest-rate hikes.

After reassessing the situation following the recent increases in inflation, the ECB implemented its first interest-rate hike on July 21, 2022, taking the key rate to 0.5 percent, and raised the prospect of further rises. It had already announced that it would gradually wind down the asset purchase programs established to soften the impact of the financial crisis and the fallout from the COVID-19 pandemic.

This monetary policy environment caused the nominal interest-rate level – starting from a very low level at the beginning of this year – to rise sharply in the first half of 2022; the previously relatively flat yield curve also became steeper. Although the interest-rate level is likely to continue to normalize, a significant increase in nominal interest rates combined with positive real interest rates is not currently expected.

In the last few years, central banks' expansionary monetary policy, and particularly the ECB's bond-buying programs, meant that structural problems in some European Monetary Union (EMU) member countries went unnoticed in the capital markets. Owing to the COVID-19 pandemic, the economies of these countries are particularly struggling and their need to obtain funding in the capital markets has risen sharply in view of the fiscal support measures that have been required. The widening of credit spreads on the bonds of individual countries as a result of the announced ending of the asset purchase programs is being monitored closely by the ECB. The central bank is concerned that if eurozone countries see an excessive rise in yields that is not justified by the fundamentals, the monetary policy transmission mechanism could be disrupted. This potential fragmentation risk is to be mitigated by the option of flexibly reinvesting liquidity from securities in the PEPP portfolio when they mature. In addition, the ECB approved the Transmission Protection Instrument (TPI) on July 21, 2022, with which it aims to control undesirable yield differentials between the government bonds of various EU member states. It remains to be seen what effect this tool will have, including in terms of the stability of the eurozone.

As described above, the predicted combination of weak economic growth, persistently high inflation rates, and a difficult geopolitical environment is leading to a stagflationary trend (see sections 1.1 to 1.4 of the outlook). Additional information on overarching macroeconomic risk factors can be found in the risk report (chapter VI.3).

It is not possible to rule out continued negative effects because of these conditions over the remainder of 2022, not only for businesses, consumers, and the real estate sector but also for the capital and financial markets, which in turn could have an adverse impact on the financial sector. In the medium term, at least, the moderate rise in interest rates should serve to somewhat stabilize the financial position and financial performance of the entities in the financial sector.

2 Financial performance

The forecasts below are based on the outcome of the DZ BANK Group's projection process. Changes in the underlying assumptions, particularly as a result of the macroeconomic conditions described above, may lead to deviations from the forecasts.

Profit before taxes is expected to fall sharply in 2022 compared with the exceptionally high figure that was achieved in 2021, which had been partly due to favorable conditions. The 2022 figure is therefore likely to be almost at the bottom end of the target range of €1.5 billion to €2.0 billion. The predicted financial performance will be heavily influenced by the challenging economic and geopolitical environment. At present, the resulting correction in the capital and financial markets is weighing particularly heavily on the earnings of the R+V and UMH operating segments. The evolving risk situation may also have negative implications, especially for the operating segments in the DZ BANK Group that are sensitive to interest rates.

In 2022, **net interest income** including income from long-term equity investments is predicted to remain at the high level recorded in 2021. This prediction is partly based on the encouraging level of customer business, especially in the BSH, DZ BANK – CICB, DZ HYP, and TeamBank operating segments.

Despite a higher, slightly steeper yield curve, the still difficult economic conditions in the eurozone may lead to falls in income for the interest-rate-sensitive business models within the DZ BANK Group.

Although **net fee and commission income** is projected to be noticeably lower in 2022 than in 2021, which had benefited from favorable conditions, it will still make a very strong contribution to the earnings of the DZ BANK Group thanks to the net fee and commission income generated by the UMH, DZ BANK – CICB, and DZ PRIVATBANK operating segments.

The volatility currently observable in the capital and financial markets could continue to have a negative impact on confidence and sentiment among retail and institutional investors, thereby depressing net fee and commission income.

Gains and losses on trading activities are anticipated to improve markedly in 2022 owing to positive IFRS-related valuation effects.

The customer-driven capital markets business in the DZ BANK – CICB operating segment may continue to suffer as the capital and financial markets environment is expected to remain volatile.

Gains and losses on investments will probably decline sharply this year, partly due to the inclusion in the prior-year figure of positive non-recurring items (such as the sale of direct equity investments at VR Equitypartner).

Other gains and losses on valuation of financial instruments are expected to deteriorate markedly year on year to a net loss in 2022, primarily due to the negative effects of valuing securities from government issuers in European periphery countries in the DZ HYP operating segment and valuing guarantee commitments for investment products in the UMH operating segment.

The forecast for this key figure may be adversely affected by volatility in the capital markets, for example as a result of the widening of credit spreads on securities from the aforementioned issuers.

According to the latest projections, **net income from insurance business** in 2022 is expected to be well below the 2021 figure. This is because gains and losses on investments held by insurance companies are expected to deteriorate sharply in the R+V operating segment owing to the volatile conditions in the capital and financial markets. However, this will be partly offset by premiums earned, which are likely to be slightly higher than the very encouraging level achieved in 2021.

The net income from insurance business generated in the remainder of 2022 may be negatively impacted not only by exceptional developments in the capital and financial markets but also by loss events and changes in underwriting practices.

The difficult environment faced by businesses and consumers – especially the supply chain problems, the impact of the war in Ukraine, and high inflation, combined with more expensive commodities and the jump in energy prices – means that expenses for **loss allowances** are forecast to rise and to reach their expected level in 2022, in contrast with 2021, which had been characterized by an unremarkable risk situation and the net reversal of loss allowances.

In 2022, **administrative expenses** are expected to rise moderately year on year. This will predominantly be due to growth-related increases in general and administrative expenses in selected operating segments and higher contributions to protection schemes.

In 2022, **other net operating income** is anticipated to climb sharply year on year, partly because the 2021 figure had been adversely impacted by non-recurring items (such as the recognition of restructuring expenses in the DVB operating segment).

The **cost/income ratio** for the DZ BANK Group is likely to rise sharply in 2022 compared with 2021 owing to the expected decrease in income.

One of the main strategic aims continues to be to reduce the cost/income ratio over the long term by rigorously managing costs on the one hand and by accelerating growth in the operating business of all segments on the other.

Regulatory RORAC, the risk-adjusted performance measure based on regulatory risk capital, will probably fall significantly year on year in 2022 in view of the expected considerable drop in profit before taxes.

3 Liquidity and capital adequacy

The DZ BANK Group is assuming that it can continue to maintain an appropriate level of **liquidity adequacy** in the second half of 2022. Further information on liquidity adequacy can be found in the risk report (chapter VI.5).

As matters currently stand, the DZ BANK Group's **capital adequacy** will continue to be assured for the second half of 2022 from both economic and regulatory perspectives; that is to say, it will continue to have at its disposal the available internal capital and own funds necessary to cover the risks associated with the finance business and other risks arising from the group's business operations. Further information on capital adequacy can be found in the risk report (chapter VI.6).

V Opportunity report

1 Management of opportunities

The DZ BANK Group defines opportunities as situations presenting the potential for further returns that could be exploited.

The management of opportunities is integrated into the annual strategic planning process. The potential for returns is identified and analyzed on the basis of various macroeconomic scenarios, trends, and changes in the market environment, and then included in strategic financial planning. Details about the strategic planning process can be found in 'DZ BANK Group fundamentals' in the 2021 (group) management report (chapter I.2.4).

Opportunity management is an integral component of governance and is therefore taken into account in the general management approach, in the management of subsidiaries via appointments to key posts, and in the DZ BANK Group's committees. Details about the governance of the DZ BANK Group can be found in 'DZ BANK Group fundamentals' in the 2021 (group) management report (chapter I.2.2).

2 Potential opportunities

The strategic focus in the DZ BANK Group follows the guiding principle of fulfilling the role of a **network-oriented central institution and financial services group**. Business activities are centered on the local cooperative banks and their customers. The objective of this strategic approach is to consolidate the positioning of the cooperative financial network as one of the leading financial services providers in Germany on a long-term basis. The partnership between the cooperative banks and the entities in the DZ BANK Group is built on the principles of subsidiarity, decentralization, and regional market responsibility.

The DZ BANK Group drives forward **strategic initiatives and programs** at three levels.

– Firstly, the entities in the DZ BANK Group work on strategic projects and initiatives in collaboration with the cooperative banks and Atruvia, with the BVR taking a leading role. The strategy agenda entitled 'Shaping the future cooperatively' provides a framework within which the entities of the cooperative financial network are implementing the initiatives in the strategic KundenFokus (customer focus) project with the aim of establishing an omnichannel model to strengthen their competitiveness.

– Secondly, the entities in the DZ BANK Group have jointly identified key areas of collaboration (such as operating models and sustainability) that offer the potential for reinforcing the future viability and profitability of all the members of the cooperative financial network. The aim is to continue to press ahead with collaboration in these areas of activity over the coming years.

– At the third level, each individual entity in the DZ BANK Group pursues its own strategic initiatives, such as the 'Verbund First 4.0' strategic program at DZ BANK. The strategic focus of the DZ BANK Group is described in chapter I.1 in 'DZ BANK Group fundamentals' in the 2021 (group) management report.

VI Risk report

1 Disclosure principles

In its capacity as the parent company in the DZ BANK Group, DZ BANK is publishing this risk report in order to meet the transparency requirements for risks applicable to the DZ BANK Group as specified in **sections 115** and **117** of the **German Securities Trading Act** (WpHG) and German Accounting Standard (GAS) 16. 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 are taken into account.

The risk report also includes information in compliance with those **recommended risk-related disclosures** that have been issued by the Financial Stability Board, the European Banking Authority, and the European Securities and Markets Authority that extend beyond the statutory requirements and that are intended 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.

DZ BANK Group

2 Summary

2.1 Risk management system

The DZ BANK Group's risk management system was described in detail in the DZ BANK Group and DZ BANK risk report ('2021 risk report') within the 2021 group management report. Those disclosures are also applicable to the first half of this year, unless otherwise indicated in this report.

The information in this section is limited to the core components of the risk management system.

2.1.1 Fundamental features

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 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 have been approved by the Board of Managing Directors. The **risk appetite statement** contains risk policy guidelines and risk strategy requirements applicable throughout the group. It also sets out quantitative guidelines reflecting risk appetite.

The methods used to **measure risk** are an integral element of the risk management system and are progressively refined and enhanced. Risk model calculations are used to manage the DZ BANK Group.

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 survival 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 tools used for the purposes of risk management are also designed to enable the DZ BANK Group to respond appropriately to **significant market movements**. Possible changes in risk factors are reflected in adjusted risk parameters in the mark-to-model measurement of credit risk and market risk. Conservative crisis scenarios for short-term and medium-term liquidity are intended to ensure that liquidity risk management also takes adequate account of market crises.

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, and the regulatory capital ratios, plus the leverage ratio and the minimum requirement for own funds and eligible liabilities (MREL).

2.1.3 Management units

Based on the requirements set out in GAS 20.A1.3, this risk report is structured according to **risk type**. 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 (referred to below as **management units**).

All entities in the DZ BANK Group are integrated into the groupwide risk management system. The DZ BANK Group largely comprises the DZ BANK banking group and R+V. The management units form the core of the financial services 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, as specified in statutory requirements, 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 have been created within the DZ BANK Group for the purposes of economic risk management. The management units are assigned to the Bank sector and Insurance sector as follows:

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

Insurance sector:
– R+V.

The management units represent the operating segments of the DZ BANK Group. From a risk perspective, the 'DZ BANK' management unit equates to the central institution and corporate bank operating segment and the holding function.

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) of the Capital Requirements Regulation (CRR), under which – provided certain conditions are met – regulatory supervision at individual bank level may be replaced by supervision of the entire banking group.

Furthermore, **DZ BANK** and **DZ HYP** have elected to apply the **liquidity waiver** pursuant to article 8 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.

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.

Risk is managed groupwide on a consolidated basis.

2.2 Risk factors and risks
The entities in the DZ BANK Group are exposed to a number of risk factors. These include adverse factors concerning the entity's environment that either affect multiple types of risk (general risk factors) or are typical of specific types of risk (specific risk factors). Disclosures on **general risk factors** can be found in section 3 of this risk report. The **specific risk factors** are shown in the risk-type-specific sections of the 2021 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. 3 and Fig. 4 respectively of the 2021 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.

2.3 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. 2 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 KPIs are explained in more detail later in this risk report.

FIG. 2 – LIQUIDITY AND CAPITAL ADEQUACY KPIS

	Measured figure		Internal minimum threshold value		External minimum target	
	Jun. 30, 2022	Dec. 31, 2021	2022	2021	2022	2021
LIQUIDITY ADEQUACY						
DZ BANK Group (economic perspective)						
Economic liquidity adequacy (€ billion)[1]	13.2	19.4	4.0	4.0	0.0	0.0
DZ BANK banking group (normative internal perspective)						
Liquidity coverage ratio – LCR (%)	141.2	147.7	110.0	110.0	100.0	100.0
Net stable funding ratio – NSFR (%)	121.3	127.1	105.0	105.0	100.0	100.0
CAPITAL ADEQUACY						
DZ BANK Group (economic perspective)						
Economic capital adequacy (%)	203.2	210.7	120.0	120.0	100.0	100.0
DZ BANK financial conglomerate (normative internal perspective)						
Coverage ratio (%)	135.5	150.8	110.0	110.0	100.0	100.0
DZ BANK banking group (normative internal perspective)						
Common equity Tier 1 capital ratio (%)[2]	13.3	15.3	10.0	10.0	9.0	9.0
Tier 1 capital ratio (%)[2]	14.8	16.8	11.9	11.9	10.8	10.8
Total capital ratio (%)[2]	16.4	18.5	14.3	14.3	13.2	13.3
Leverage ratio (%)[2]	4.5	7.3	4.0	3.5	3.0	3.3
MREL ratio (%)[3, 4]	35.4	37.3	26.8		25.1	
Subordinated MREL ratio (%)[3]	25.0	26.5	24.8		23.8	

Not available

1 The measured value relates to the stress scenario with the lowest minimum liquidity surplus. The internal threshold value relates to the observation threshold.
2 The external minimum targets are the binding regulatory minimum capital requirements. Further details can be found in section 6.2.2.
3 Calculated as the ratio of the total of regulatory own funds and eligible bail-in-able liabilities to the total risk exposure amount (TREA).
4 The calculation of the MREL ratio was changed with effect from January 1, 2022. This means that the figure as at December 31, 2021 differs from the corresponding disclosures in the 2021 risk report. Details on the change of method can be found in section 6.2.2.

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 potential crisis-related threats.

In addition, the DZ BANK Group remained within its economic **risk-bearing capacity** in the first half of 2022 and also complied with regulatory requirements for capital adequacy on every reporting date.

3 General risk factors

3.1 General risk factors that have not changed materially

The general risk factors that were material to the DZ BANK Group and remained unchanged compared with 2021 are set out below. Details of these risk factors can be found in the 2021 risk report.

Regulatory risk factors:
- Regulatory capital buffers
- Switch in interest-rate benchmarks

Macroeconomic risk factors:
- Risks to the global economy as a result of the COVID-19 pandemic
- Economic divergence in the eurozone

Risk factors affecting environmental, social, or corporate governance matters (ESG risk factors):
- Climate-related and environmental risks
- Social risks and corporate governance risks

Rating downgrades for DZ BANK

3.2 General risk factors that have changed materially

Disclosures on the macroeconomic risk factors listed below were published in the 2021 risk report. Due to material changes in the first six months of the year, these disclosures have been updated below.

3.2.1 The war in Ukraine and the Russian gas embargo

At present, the war in Ukraine is casting a shadow over the outlook for the global economy. Western countries imposed sanctions on Russia at an early stage and have gradually tightened them. The effects are being felt not only by Russia. The entire global economy is suffering from steep increases in the cost of commodities and high energy prices. Germany and other European Union (EU) countries are particularly badly affected because of their dependence on Russian energy supplies.

Repeated interruptions to, or reductions in, the supply of gas from Russia may be reflected in high energy prices, which will weigh on macroeconomic growth. If the supply of Russian gas to Europe were to be cut off completely, this would presumably have an even greater impact on growth and inflation. A physical lack of gas, particularly in the winter months, would lead to supply restrictions that would primarily affect industry. These difficulties could become more challenging as a result of supply relationships and interdependencies between entities. In this kind of risk scenario, a general economic recession would be very likely.

This would impact on **credit risk** and **operational risk** in the Bank sector and on **market risk** in the Insurance sector.

3.2.2 International trade disputes and supply chain problems

For global trade, there continues to be a risk of a renewed escalation of **trade disputes between the United States, China, and Europe** in addition to the effects of disrupted supply chains described in chapter IV.1 in the outlook. This could have negative consequences for the global economy, and for the export-dependent German economy in particular. The sanctions imposed on Russia by western countries create further potential for tension between the EU and the United States in respect of countries that either fail to implement these sanctions or only partially impose them, for example China.

The war in Ukraine is leading to both bottlenecks and supply problems. One of the areas affected is food. Furthermore, the considerable **vulnerability of international supply chains** to specific critical events has become evident in recent years. Such events include, for example, COVID-19-related stoppages in production and logistics in China, the blocking of the Suez Canal by a ship that became stuck, the war in Ukraine, and the conflict between Taiwan and China.

For companies in Germany, restrictions on global trade may, on the one hand, lead to higher import prices and a shortage of base products, and on the other, cause a decline in exports. A reduction of the global trade volume may have a negative impact on **credit risk** in the Bank sector.

3.2.3 Inflation – stagflation

Chapter IV.1 in the outlook describes the anticipated trend in inflation. Given the risk that prices will continue to rise faster than the currently expected rates of inflation, this issue is also addressed below as a risk factor.

In the first half of 2022, inflation continued to gather pace in the eurozone and in the United States due to a combination of several factors. As well as low prices in the previous year and pent-up demand for consumer products and capital goods as a result of the pandemic, the main reasons were rising energy prices worldwide and problems in global supply chains. The war in Ukraine further accelerated the increase in energy and food prices. Current shortages of some products as a result of the supply bottlenecks may still trigger substantial price increases for manufacturers, which may pass them on to consumers.

This means that there is a risk that the currently elevated level of inflation may not be a temporary phenomenon and some major components could keep the inflation rate above the ECB's inflation target for an extended period. This would be particularly problematic if the higher prices, combined with the reduction in manufacturing output, also made consumers reluctant to spend and wages simultaneously rose as this would result in a wage/price spiral. This could ultimately lead to a period of stagflation, i.e. a combination of elevated inflation, stagnant output and demand, and rising unemployment. Moreover, the ECB's latitude for tackling inflation is probably more limited than in the past, not least because the pandemic has resulted in further increases in government debt in vulnerable eurozone countries.

Stagflation may impact **credit risk** in the Bank sector and **market risk** in the Insurance sector, in particular. As at the reporting date, no stagflation-related increase in the measured risks was evident.

3.3 New general risk factors

The following macroeconomic risk factors emerged in the first half of 2022. They had not yet been relevant during the previous year.

3.3.1 Abrupt change in the interest-rate environment

Market interest rates rose significantly across all maturity periods in the first half of the year as a result of the change in direction of monetary policy introduced in the United States by the Federal Reserve Board in mid-March and the tightening that was announced by the ECB in June and implemented in July. After the low-interest-rate environment of previous years, this abrupt change, with its potentially ongoing interest-rate rises, poses a challenge to the Bank sector and the Insurance sector.

In the **Bank sector**, any further rapid rise in interest rates could trigger market risk as regards liquidity and capital and this would particularly affect BSH because of its building society operations and its own-account investing activities. In the **Insurance sector**, a rise in interest rates would result in fair value losses on investments. There is also a risk that policyholders could increasingly allow existing life insurance policies to lapse.

3.3.2 Correction in real estate markets

Despite warnings about over-inflated valuations, real estate prices in Germany rose further even after the outbreak of the COVID-19 pandemic. In the face of already high price levels, the rises observed during the first six months of 2022 in home-finance interest rates and inflation increased the risk of a correction in real estate markets. Rising interest rates increase the financial burden for real estate buyers, whereas inflation simultaneously reduces the income that households have available for repayments. In the commercial real estate market, project developers and property developers are affected by the increasing costs of materials and energy costs as well as by disrupted supply chains. For hotel real estate, in particular, uncertainty continues to exist about how the COVID-19 pandemic will unfold going forward. These developments will mainly affect the Bank sector's **credit risk**. No material impact on the credit risk key figures was evident as at the reporting date.

4 Dealing with the impact of acute global crises

4.1 Relaxation of supervisory requirements

The lowering of the **external minimum targets** for regulatory key figures that had been carried out by the supervisory authorities in 2020 in response to the **COVID-19 pandemic** continued to apply unchanged in the first half of 2022. The same was true for the lower **internal thresholds** for selected regulatory capital adequacy metrics that had been adopted by the Board of Managing Directors of DZ BANK in the previous year. The banking supervisor's pandemic-related relaxing of requirements relating to the preparation of a group recovery plan in previous years ceased to apply. In particular, the number of stress scenarios to be prepared has been increased back to four, compared with only two in the previous year.

4.2 Risk management measures

As a result of the normalization of the risks arising from the COVID-19 pandemic, the **special reporting measures relating to the pandemic** implemented in 2020 were integrated into the standard risk reporting system in the first half of 2022. The financial and risk radar and the CET1 radar were no longer used.

A new instrument for reporting to the Board of Managing Directors of DZ BANK was established in February of this year, the **Russia/Ukraine radar**, which is used to closely manage and monitor risks arising from the war in Ukraine.

In response to the war in Ukraine, a one-year ad hoc scenario was added to the groupwide **stress test report** in March 2022. Among other things, this scenario assumes a complete halt in gas supplies from Russia and incorporates rising inflation and interest rates. A two-year scenario was developed in the second quarter based on the threats and risks that continue to be relevant (inflation, interest-rate increases, war in Europe) and contains the medium-term outlook of a halt in gas supplies from Russia. This two-year scenario was reported for the first time as at June 30, 2022.

Disclosures on the **risks** resulting from the COVID-19 pandemic and the war in Ukraine can be found in the relevant risk-type-specific sections of this report. This concerns credit risk (section 7.3) in the Bank sector and actuarial risk (section 13.1) and market risk (section 14.2) in the Insurance sector.

5 Liquidity adequacy

5.1 Economic perspective

5.1.1 Quantitative variables

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 one-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. 3 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, 2022 amounted to €29.8 billion (December 31, 2021: €30.3 billion). The decline in liquid securities eligible for GC Pooling resulted from a reduction in the securities in the DZ BANK Group's own portfolio and was not entirely offset by an increase in the net position of collateral received and pledged. Conversely, the liquidity value increased due to a reduction in the pledged volume of liquid securities eligible as collateral for central bank loans.

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 range of funding sources in the unsecured money markets is shown in Fig. 4. The changes in the composition of the sources of funding compared with the end of 2021 were attributable to the diversification of customer and investor behavior resulting from changes in interest rates triggered by the money market policy implemented by the ECB.

Further information on liquidity management and funding can be found in chapter II.5 in the business report.

FIG. 3 – LIQUID SECURITIES

€ billion	Jun. 30, 2022	Dec. 31, 2021
Liquid securities eligible for GC Pooling (ECB Basket)[1]	**14.9**	16.4
Securities in own portfolio	19.3	23.0
Securities received as collateral	25.2	16.9
Securities provided as collateral	-29.6	-23.6
Liquid securities eligible as collateral for central bank loans	**8.9**	8.0
Securities in own portfolio	18.6	20.5
Securities received as collateral	6.4	8.2
Securities provided as collateral	-16.1	-20.6
Other liquid securities	**6.1**	5.9
Securities in own portfolio	5.9	5.8
Securities received as collateral	0.3	0.1
Securities provided as collateral	-0.2	-
Total	**29.8**	**30.3**
Securities in own portfolio	43.7	49.3
Securities received as collateral	32.0	25.3
Securities provided as collateral	-45.9	-44.2

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

FIG. 4 – UNSECURED SHORT-TERM AND MEDIUM-TERM FUNDING

€ billion	Jun. 30, 2022	Dec. 31, 2021
Deposits	**95.1**	97.5
Deposits of local cooperative banks	48.7	58.5
Current account deposits of other customers	46.4	39.0
Money market borrowing	**73.2**	32.2
Central banks, interbank, and customer banks	17.0	5.5
Corporate customers and institutional customers	33.8	14.1
Certificates of deposit/commercial paper	22.5	12.6

5.1.2 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. 5 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 one year is at its lowest point.

FIG. 5 – LIQUIDITY UP TO 1 YEAR IN THE STRESS SCENARIOS WITH DEFINED LIMITS: MINIMUM LIQUIDITY SURPLUSES

	Forward cash exposure		Counterbalancing capacity		Minimum liquidity surplus	
€ billion	Jun. 30, 2022	Dec. 31, 2021	Jun. 30, 2022	Dec. 31, 2021	Jun. 30, 2022	Dec. 31, 2021
Downgrading	-48.9	-22.5	81.4	51.7	32.6	29.2
Corporate crisis	-40.5	-11.0	53.6	32.9	13.2	21.9
Market crisis	-43.8	-13.2	66.5	42.2	22.8	29.0
Combination crisis	-44.3	0.5	60.3	18.9	16.0	19.4

The reduction in the forward cash exposure and the increase in the counterbalancing capacity mainly resulted from a TLTRO tranche that is due to mature on June 28, 2023. The slightly larger increase in the forward cash exposure and counterbalancing capacity in the combination crisis stress scenario compared with the other stress scenarios was caused by a change in the date on which the liquidity surplus was at a minimum. Although this date was in the first month of the one-year forecast period as at the end of 2021, it was at the end of the forecast period as at the reporting date.

The liquidity risk value measured as at June 30, 2022 for the stress scenario with defined limits with the lowest minimum liquidity surplus (squeeze scenario) was €13.2 billion (December 31, 2021: €19.4 billion). The decrease in the minimum liquidity surplus was largely due to a reduction in the local cooperative banks' current account deposits at DZ BANK.

The risk values as at June 30, 2022 were above the internal threshold value (€4.0 billion) and above the **limit** (€1.0 billion). They were also above the external minimum target (€0 billion). The observation threshold, limit, and external minimum target remained unchanged compared with 2021.

The minimum liquidity surplus as at June 30, 2022 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 new general risk factor 'abrupt change in the interest-rate environment' (see section 3.3.1) had no significant impact on economic liquidity adequacy.

5.2 Normative internal perspective

5.2.1 Liquidity coverage ratio

The LCR for the DZ BANK banking group calculated in accordance with Commission Delegated Regulation (EU) 2015/61 as at June 30, 2022 is shown in Fig. 6.

FIG. 6 – LIQUIDITY COVERAGE RATIO AND ITS COMPONENTS

	Jun. 30, 2022	Dec. 31, 2021
Total liquidity buffer (€ billion)	129.2	97.3
Total net liquidity outflows (€ billion)	91.5	65.9
LCR (%)	141.2	147.7

The decrease in the LCR from 147.7 percent as at December 31, 2021 to 141.2 percent as at June 30, 2022 resulted from the LCR's greater sensitivity in respect of the increased net liquidity outflows. This negative effect had a larger impact than the countervailing, positive effect of the higher excess cover (calculated by deducting the net liquidity outflows from the liquidity buffer).

The larger liquidity buffer was mainly due to the growth of balances with central banks on the back of a higher volume of long-term own issues and deposits from financial and non-financial customers. While long-term own issues are only included in liquidity outflows in the last 30 days before the maturity date, deposits are added to the outflows with a specific factor based on their maturity period. This caused a smaller increase in net liquidity outflows – mainly due to long-term funding – and led to positive excess cover. 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 **internal threshold value** that applies to the DZ BANK banking group (110.0 percent) was exceeded as at the reporting date. The regulatory **external minimum target** applicable to the DZ BANK banking group (100.0 percent) was also exceeded as at June 30, 2022.

5.2.2 Net stable funding ratio

The NSFR is intended to limit mismatches between the maturity structures of assets-side and liabilities-side business. The ratio is the amount of available stable funding (equity and liabilities) relative to the amount of required stable funding (assets-side business). The funding sources are weighted according to their degree of stability and assets are weighted according to their degree of liquidity based on factors defined by the supervisory authority. The NSFR, which has a longer-term focus, complements the LCR, which has a short-term focus.

The NSFR for the DZ BANK banking group is shown in Fig. 7.

FIG. 7 – NET STABLE FUNDING RATIO AND ITS COMPONENTS

	Jun. 30, 2022	Dec. 31, 2021
Available stable funding (weighted equity and liabilities; € billion)	281.0	293.7
Required stable funding (weighted assets; € billion)	231.7	231.1
Excess cover/shortfall (€ billion)[1]	49.3	62.6
NSFR (%)	**121.3**	**127.1**

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

Excess cover in relation to the NSFR is the difference between the available stable funding and the required stable funding.

The fall in the NSFR from 127.1 percent as at December 31, 2021 to 121.3 percent as at June 30, 2022 was mainly due to a reduction in the excess cover. This was, in turn, due to a fall in the amount of available stable funding – mainly operational deposits of the cooperative financial network – and a simultaneous increase in funding requirements resulting from loans and encumbered reverse repos.

As at the reporting date, both the **internal threshold** for the NSFR of 105.0 percent and the regulatory **external minimum target** of 100.0 percent were exceeded.

6 Capital adequacy

6.1 Economic perspective

The annual recalculation of the overall solvency requirement took place as at December 31, 2021 owing to scheduled changes to the parameters for the risk measurement procedures carried out in the second quarter of 2022 for the Insurance sector on the basis of R+V's 2021 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, 2021 given in this risk report have been restated accordingly and are not directly comparable with the figures in the 2021 risk report.
The DZ BANK Group's **available internal capital** as at June 30, 2022 stood at €29,337 million. The comparable figure as at December 31, 2021 was €31,873 million. The year-on-year decline in the available internal capital was largely due to the Insurance sector and was primarily explained by the trend in capital markets.

The **limit** derived from the available internal capital was set at €22,215 million as at June 30, 2022 (December 31, 2021: €23,588 million).

As at June 30, 2022, **aggregate risk** was calculated at €14,435 million. The comparable figure as at December 31, 2021 was €15,131 million. The decrease was primarily driven by lower credit risk and business risk in the Bank sector.

As at June 30, 2022, the **economic capital adequacy ratio** for the DZ BANK Group was calculated at 203.2 percent. The comparable figure as at December 31, 2021 was 210.7 percent. As at the reporting date, the economic capital adequacy ratio was higher than the internal threshold value of 120.0 percent and the external minimum target of 100.0 percent. The internal threshold value and the external minimum target for 2022 are unchanged compared with those for 2021. The decrease in the economic capital adequacy ratio compared with the end of 2021 was due to the smaller amount of available internal capital.

Fig. 8 provides an overview of economic capital adequacy and its components.

FIG. 8 – ECONOMIC CAPITAL ADEQUACY OF THE DZ BANK GROUP

	Jun. 30, 2022	Dec. 31, 2021
Available internal capital (€ million)[1]	29,337	31,873
Limit (€ million)	22,215	23,588
Aggregate risk (€ million)[1]	14,435	15,131
Economic capital adequacy (%)[1]	**203.2**	**210.7**

1 Value as at December 31, 2021 after recalculation of R+V's overall solvency requirement. Different values were stated in the 2021 risk report.

In the case of the risk types in the Bank sector and Insurance sector, the risk capital requirement also contains any decentralized **capital buffer requirement** that has been assigned. 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. 9.

FIG. 9 – LIMITS AND RISK CAPITAL REQUIREMENTS IN THE BANK SECTOR

	Limit		Risk capital requirement	
€ million	Jun. 30, 2022	Dec. 31, 2021	Jun. 30, 2022	Dec. 31, 2021
Credit risk	6,437	7,188	4,469	5,037
Equity investment risk	1,230	1,220	969	996
Market risk	6,680	5,725	3,863	3,713
Technical risk of a home savings and loan company[1]	720	706	689	639
Business risk[2]	280	640	89	407
Operational risk	1,112	1,102	930	941
Total (after diversification)	**15,380**	**15,403**	**10,250**	**10,871**

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. 10 sets out the limits and overall solvency requirements for the **Insurance sector**, broken down by risk type, and includes policyholder participation. 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.

FIG. 10 – LIMITS AND OVERALL SOLVENCY REQUIREMENTS IN THE INSURANCE SECTOR

	Limit		Overall solvency requirement	
€ million	Jun. 30, 2022	Dec. 31, 2021	Jun. 30, 2022	Dec. 31, 2021[1]
Life actuarial risk[2]	850	600	655	343
Health actuarial risk	300	350	153	231
Non-life actuarial risk	3,200	4,600	1,775	1,939
Market risk	3,880	4,400	3,073	3,169
Counterparty default risk	350	350	265	235
Operational risk	1,000	1,000	683	718
Risks from entities in other financial sectors	180	180	130	130
Total (after diversification)	**6,155**	**7,460**	**3,703**	**3,685**

1 Values after recalculation of the overall solvency requirement. Different values were stated in the 2021 risk report.
2 Reputational risk is implicitly included in the overall solvency requirement for life actuarial risk (lapse risk).

In addition to the amounts shown in Fig. 9 and Fig. 10, the aggregate risk includes a **centralized capital buffer requirement across all types of risk**, which was calculated at €482 million as at June 30, 2022 (December 31, 2021: €575 million). The corresponding **limit** was €680 million (December 31, 2021: €725 million). This decrease in the centralized capital buffer requirement was predominantly due to the updating of components of credit risk.

6.2 Normative internal perspective

6.2.1 DZ BANK financial conglomerate

The DZ BANK financial conglomerate comprises the DZ BANK banking group and the R+V Versicherung AG insurance group. The changes in the coverage ratio and in the own funds and solvency requirements of the DZ BANK financial conglomerate are shown in Fig. 11.

FIG. 11 – REGULATORY CAPITAL ADEQUACY OF THE DZ BANK FINANCIAL CONGLOMERATE[1]

	Jun. 30, 2022	Dec. 31, 2021[2]
Own funds (€ million)	33,687	36,896
Solvency requirements (€ million)	24,868	24,470
Coverage ratio (%)	**135.5**	**150.8**

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 2021 risk report.

The decrease in the coverage ratio calculated for the DZ BANK financial conglomerate from 150.8 percent as at December 31, 2021 to 135.5 percent as at June 30, 2022 was attributable, in particular, to the reduction in own funds. By contrast, the DZ BANK financial conglomerate's solvency requirements increased. The change in the coverage ratio was attributable to effects in the DZ BANK banking group and in the R+V Versicherung AG insurance group (see sections 6.2.2 and 6.2.3 of this risk report).

The final coverage ratio calculated for the financial conglomerate as at June 30, 2022 was higher than both the internal threshold value (110.0 percent) and the external minimum target (100.0 percent). According to current projections, this is also expected to be the case for the rest of 2022.

6.2.2 DZ BANK banking group

Regulatory capital ratios

The regulatory **own funds** of the DZ BANK banking group as at June 30, 2022 determined in accordance with the CRR transitional guidance amounted to a total of €23,821 million (December 31, 2021: €27,729 million). This equated to a decline in own funds of €3,908 million compared with the end of 2021, mainly comprising a decrease in common equity Tier 1 capital of €3,734 million and a fall in Tier 2 capital of €174 million.

The decrease in common equity Tier 1 capital was mostly due to temporary accounting effects at R+V. As a member of the DZ BANK Group, R+V already had to measure its assets at fair value in accordance with IFRS 9. Equity and liabilities, and therefore liabilities to policyholders, will only be treated in the same way after the transition to IFRS 17 next year. This led to a temporary technical interest-rate risk caused by the strong increase in interest rates during the reporting period. The result was a negative contribution to earnings and a significantly lower contribution to common equity Tier 1 capital as at June 30, 2022. A countervailing effect is anticipated in 2023.

Tier 2 capital declined from €2,546 million as at December 31, 2021 to €2,372 million as at June 30, 2022, a decrease of €174 million. This decrease was attributable to a €76 million increase in the deduction amount pursuant to the transitional guidance that is applicable until the IFRS 9 impairment requirements are applied in full and a €99 million reduction in the excess of loss allowances.

Risk-weighted assets went down from €150,137 million as at December 31, 2021 to €145,209 million as at June 30, 2022, a decrease of €4,928 million that comprised two opposing effects. On the one hand, the carrying amount of DZ BANK's long-term equity investment in R+V, which is accounted for using the equity method, fell in the first half of 2022. Yet on the other, the same period saw highly volatile movements in the capital markets, which led to a rise in market risk.

As at June 30, 2022, the DZ BANK banking group's **common equity Tier 1 capital ratio** was 13.3 percent, a decrease of 2.0 percentage points compared with December 31, 2021 (15.3 percent). The **Tier 1 capital ratio** of 14.8 percent calculated as at the reporting date was 2.0 percentage points lower than the figure as at December 31, 2021 too (16.8 percent). The **total capital ratio** also went down, from 18.5 percent as at December 31, 2021 to 16.4 percent as at the reporting date.

Fig. 12 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 had to comply with in 2021 under the Supervisory Review and Evaluation Process for Basel Pillar 2 (SREP) comprised those components of 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 2021, also had to be satisfied. In this process, the banking supervisor specified a mandatory add-on (**Pillar 2 requirement**) that is factored 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. 12 – REGULATORY CAPITAL RATIOS[1]

	Jun. 30, 2022	Dec. 31, 2021
Capital		
Common equity Tier 1 capital (€ million)	19,287	23,021
Additional Tier 1 capital (€ million)	2,161	2,161
Tier 1 capital (€ million)	**21,449**	**25,183**
Total Tier 2 capital (€ million)	2,372	2,546
Own funds (€ million)	**23,821**	**27,729**
Risk-weighted assets		
Credit risk including long-term equity investments (€ million)	124,387	132,296
Market risk (€ million)	10,139	7,355
Operational risk (€ million)	10,683	10,487
Total (€ million)	**145,209**	**150,137**
Capital ratios		
Common equity Tier 1 capital ratio (%)	13.3	15.3
Tier 1 capital ratio (%)	14.8	16.8
Total capital ratio (%)	16.4	18.5

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. 13.

FIG. 13 – REGULATORY MINIMUM CAPITAL REQUIREMENTS ACCORDING TO SREP

%	2022	2021
Minimum requirement for common equity Tier 1 capital	4.50	4.50
Additional Pillar 2 capital requirement	0.96	0.98
Capital conservation buffer	2.50	2.50
Countercyclical capital buffer[1]	0.02	0.02
O-SII capital buffer	1.00	1.00
Mandatory minimum requirement for common equity Tier 1 capital	**8.98**	**9.01**
Minimum requirement for additional Tier 1 capital	1.50	1.50
Additional Pillar 2 capital requirement	0.32	0.33
Mandatory minimum requirement for Tier 1 capital	**10.80**	**10.84**
Minimum requirement for Tier 2 capital[2]	2.00	2.00
Additional Pillar 2 capital requirement	0.43	0.44
Mandatory minimum requirement for total capital	**13.22**	**13.27**

1 The value for the countercyclical capital buffer is recalculated at each reporting date. Unlike the other reported values, which apply to the entire financial year, the countercyclical capital buffers shown for 2022 and 2021 relate solely to the reporting dates.
2 The minimum requirement can also be satisfied with common equity Tier 1 capital.

Relaxation of the minimum capital requirements in response to the COVID-19 pandemic

Because of the COVID-19 pandemic, the supervisory authorities introduced various relief measures for banks, including in relation to the **binding minimum capital requirements**. For example, a bank can temporarily use up its capital conservation buffer and O-SII capital buffer without incurring sanctions. In such an eventuality, it must submit a capital conservation plan to the supervisory authorities. If, as a result, the combined capital buffer requirement and thus one of the three thresholds for the maximum distributable amount can no longer be met, the rules regarding the limits for distributions continue to apply. DZ BANK does not use the aforementioned relief measures and consequently they are not taken into account in Fig. 13.

Because of the COVID-19 pandemic, the supervisory authorities in some countries reduced the capital buffer rates used to calculate the countercyclical capital buffer, which is another part of the mandatory minimum capital requirements. In some cases, the authorities lowered the rates right down to 0 percent. In a general administrative act dated March 31, 2020, the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) [German Federal Financial Supervisory Authority] lowered the domestic countercyclical capital buffer rate for Germany to 0 percent. This rate continues to apply. The reduced capital buffer rates for Germany and other countries are factored into the calculation of the institution-specific countercyclical capital buffer rate.

Banks are also temporarily permitted to not comply with the **Pillar 2 capital recommendation** without this having any impact on a possible distribution. DZ BANK does not currently exercise this option.

Compliance with the minimum capital requirements

The **internal threshold values** and **external minimum targets** applicable to 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, 2022. The internal threshold values are shown in Fig. 2.

Leverage ratio

The **leverage ratio** of the DZ BANK banking group determined in accordance with the CRR transitional guidance went down by 2.8 percentage points from 7.3 percent as at December 31, 2021 to 4.5 percent as at June 30, 2022. This decline was mainly due to the ending of the temporary exemption from including balances with central banks. These exposures have had to be included again since April 1, 2022. As at the reporting date, balances with central banks amounted to €93.6 billion. A significant fall in Tier 1 capital from €25.2 billion as at December 31, 2021 to €21.4 billion as at June 30, 2022 also contributed to the decrease in the leverage ratio.

As at June 30, 2021, the banking supervisor introduced a binding **external minimum target** of 3.0 percent in connection with initial application of CRR II. Since the DZ BANK banking group had used the aforementioned temporary exemption for balances with central banks, the external minimum target stood at 3.26 percent until this exemption expired on March 31, 2022. Since April 1, 2022, the external minimum target has again been 3.0 percent.

Both the **internal threshold value** of 4.0 percent for the leverage ratio and the **external minimum target** of 3.0 percent specified by the banking regulator were exceeded as at June 30, 2022. Based on current projections, it is expected that these minimum requirements will also be satisfied in the second half of the year.

MREL ratio

The calculation of the MREL ratio was changed with effect from January 1, 2022. The MREL ratio is now calculated as the ratio of the total of regulatory own funds and eligible bail-in-able liabilities to the total risk exposure amount of the DZ BANK banking group.

The following quantitative disclosures for the MREL ratio are based on the amended calculation method. The values as at December 31, 2021 have been adjusted accordingly and therefore differ from those shown in the 2021 risk report.

The **MREL ratio** measured for the DZ BANK banking group was 35.4 percent as at June 30, 2022 (December 31, 2021: 37.3 percent). The lower ratio compared to the end of 2021 is explained by the decline in common equity Tier 1 capital as a result of temporary accounting effects at R+V of €3,909 million and by a reduction in senior preferred liabilities due to transactions that matured, which meant that the liabilities were no longer eligible for the MREL volume.

DZ BANK's Board of Managing Directors set the **internal threshold value** for the DZ BANK banking group's MREL ratio for 2022 at 26.8 percent. The **external minimum target** for 2022 is 25.1 percent. In 2021, neither an internal threshold value nor an external minimum target applied to the MREL ratio. The MREL ratio measured as at June 30, 2022 was above the internal threshold value and the external minimum target.

Subordinated MREL ratio

The subordinated MREL ratio has been calculated and reported to the supervisory authorities since the start of this year. In contrast to the MREL ratio, the subordinated MREL ratio only takes into account subordinated MREL-eligible liabilities.

The **subordinated MREL ratio** of the DZ BANK banking group was 25.0 percent as at June 30, 2022 (December 31, 2021: 26.5 percent). The decline in common equity Tier 1 capital was due to temporary accounting effects at R+V of €3,909 million that were not offset by the €582 million increase in senior non-preferred liabilities.

The **internal threshold value** applicable to the subordinated MREL ratio of the DZ BANK banking group was 24.8 percent for the first six months of the year. For the second half of 2022, this value is 25.5 percent. The supervisory authorities specified an **external minimum target** of 23.8 percent for 2022 as a whole. In 2021, neither an internal threshold value nor an external minimum target applied to the MREL ratio. The subordinated MREL ratio measured as at June 30, 2022 was above the internal threshold value and the external minimum target.

6.2.3 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 R+V Versicherung AG insurance group met the solvency requirements under Solvency II as at June 30, 2022.

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, 2022.

Bank sector

7 Credit risk

7.1 Overview of the credit risk situation

Economic conditions worsened in the first half of 2022. Various factors contributed to this: the rise in interest rates, inflation, the negative economic impact of the war in Ukraine, supply chain problems brought on by COVID-19-related stoppages in production and logistics in China, and lower growth forecasts.

The credit risk situation of the entities in the Bank sector did not worsen materially despite these unfavorable macroeconomic conditions. The exposure affected by the acute global crises was modest as at the reporting date, and the impairment requirement that emerged in the first six months of 2022 was at a moderate level. Changes in the credit portfolio will be monitored closely in the second half of the financial year, especially in view of these conditions.

7.2 Lending volume

7.2.1 Asset class structure of the credit portfolio

The reporting to the Board of Managing Directors on concentrations of credit risk includes a presentation of the credit portfolio broken down by asset class. This is done by dividing the credit portfolio into business-related homogeneous segments on the basis of characteristics such as industry code to reflect the sector, product type, and the rating system used to determine the credit rating. The characteristics are selected in such a way that the segments are subject to uniform risk drivers.

In its role as central institution for the Volksbanken Raiffeisenbanken cooperative financial network, DZ BANK provides funding for the entities in the Bank sector and for the cooperative banks. For this reason, the cooperative banks, which are assigned to the asset class **entities within the cooperative financial network**, account for one of the largest loans and receivables items in the group's credit portfolio.

DZ BANK also supports the cooperative banks in the provision of larger-scale funding to corporate customers. Corporate banking exposures relate to business with commercial customers, which is assigned mainly to one of the following asset classes: corporates, commercial real estate customers, and asset-based lending/project finance. The syndicated business resulting from the corporate customer lending business, the direct business of DZ BANK, the real estate lending business of DZ HYP and BSH, and DZ HYP's local authority lending business determine the asset-class breakdown for the remainder of the portfolio.

The total lending volume increased by 4 percent overall in the first half of the year, from €430.7 billion as at December 31, 2021 to €450.0 billion as at June 30, 2022. The rise in the lending volume was mainly due to an increase in volume in the entities within the cooperative financial network and corporates asset classes, which went up by €10.1 billion and €6.1 billion respectively compared with the end of 2021. DZ BANK accounted for most of the increase, which was driven by lending business (primarily support loan business and money market loans) with entities in the cooperative financial network and business performance in the Corporate Banking and Structured Finance divisions.

As at June 30, 2022, a significant proportion (39 percent) of the lending volume was concentrated in the financial sector (December 31, 2021: 38 percent). In addition to the local cooperative banks, the borrowers in this customer segment comprised banks from other sectors of the banking industry and other financial institutions.

Fig. 14 shows the breakdown of the credit portfolio by asset class.

FIG. 14 – BANK SECTOR: LENDING VOLUME, BY ASSET CLASS

€ billion	Jun. 30, 2022	Dec. 31, 2021
Entities within the cooperative financial network	133.7	123.6
Financials	44.0	40.6
Corporates	73.2	67.1
Asset-based lending/project finance	11.6	11.9
Public sector	39.6	43.5
Real estate (commercial and retail customers)	119.6	117.9
Retail business (excluding real estate customers)	17.5	16.7
ABSs and ABCPs[1]	9.0	7.4
Other	1.9	1.9
Total	**450.0**	**430.7**

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

7.2.2 Geographical structure of the credit portfolio

Fig. 15 shows the geographical distribution of the credit portfolio by country group. The lending volume is assigned to the individual country groups using the International Monetary Fund's breakdown, which is updated annually. The relevant country is the one in which the economic risk arises.

FIG. 15 – BANK SECTOR: LENDING VOLUME, BY COUNTRY GROUP

€ billion	Jun. 30, 2022	Dec. 31, 2021
Germany	377.3	362.4
Other industrialized countries	56.3	53.9
of which: USA	9.3	8.5
of which: France	6.4	6.5
of which: Austria	5.8	5.2
Advanced economies	2.8	2.5
Emerging markets	9.2	9.0
Supranational institutions	4.4	2.9
Total	**450.0**	**430.7**

As at June 30, 2022, 96 percent (December 31, 2021: 97 percent) of the total lending volume was concentrated in Germany and other industrialized countries.

7.2.3 Residual maturity structure of the credit portfolio

The breakdown of the credit portfolio by residual maturity as at June 30, 2022 presented in Fig. 16 shows that the lending volume had increased by €10.9 billion in the **short-term maturity band** compared with December 31, 2021. This was primarily attributable to DZ BANK.

FIG. 16 – BANK SECTOR: LENDING VOLUME, BY RESIDUAL MATURITY

€ billion	Jun. 30, 2022	Dec. 31, 2021
≤ 1 year	113.9	103.0
> 1 year to ≤ 5 years	107.7	114.6
> 5 years	228.4	213.1
Total	**450.0**	**430.7**

By contrast, there was a decrease of €6.9 billion in the **medium-term maturity band** that was attributable to BSH.

The lending volume in the **long-term maturity band** increased by €15.3 billion, which was mainly accounted for by BSH and DZ BANK.

7.2.4 Rating structure of the credit portfolio

Fig. 17 shows the lending volume by rating class according to the VR credit rating master scale. The proportion of the total lending volume represented by rating classes 1A to 3A (investment grade) was 87 percent as at June 30, 2022 (December 31, 2021: 85 percent). Rating classes 3B to 4E (non-investment grade) represented 12 percent as at the reporting date (December 31, 2021: 14 percent). Defaults, represented by rating classes 5A to 5E, accounted for less than 1 percent of the total lending volume as at June 30, 2022, which was unchanged compared with the end of 2021.

FIG. 17 – BANK SECTOR: LENDING VOLUME, BY RATING CLASS

€ billion		Jun. 30, 2022	Dec. 31, 2021
Investment grade	1A	30.5	32.7
	1B	7.8	7.6
	1C	147.2	135.8
	1D	14.0	13.4
	1E	15.9	14.4
	2A	18.4	16.7
	2B	28.1	25.7
	2C	27.8	23.3
	2D	32.6	30.8
	2E	40.9	39.7
	3A	27.8	25.8
Non-investment grade	3B	15.3	17.4
	3C	12.9	14.7
	3D	10.0	9.6
	3E	4.4	6.2
	4A	2.4	2.9
	4B	3.4	3.5
	4C	1.3	1.2
	4D	1.8	1.7
	4E	2.3	1.6
Default		3.2	3.4
Not rated		2.3	2.6
Total		**450.0**	**430.7**

In the analysis of **individual concentrations**, the ten counterparties associated with the largest lending volumes accounted for 5 percent of total lending as at June 30, 2022. This was the same as the figure at the end of 2021. These counterparties largely comprised borrowers from the public sector domiciled in Germany and from the financial sector (including the cooperative banks) with investment-grade ratings.

7.2.5 Collateralized lending volume

Fig. 18 shows the breakdown of the collateralized lending volume at overall portfolio level by type of collateral.

FIG. 18 – BANK SECTOR: COLLATERAL VALUE, BY TYPE OF COLLATERAL

€ billion	Jun. 30, 2022	Dec. 31, 2021
Guarantees, indemnities, risk subparticipation	7.2	7.3
Credit insurance	5.0	4.9
Land charges, mortgages, registered ship and aircraft mortgages	117.4	116.0
Pledged loans and advances, assignments, other pledged assets	1.5	2.3
Financial collateral	1.9	1.8
Other collateral	0.3	0.2
Total collateral	**133.2**	**132.6**
Lending volume	378.1	355.3
Uncollateralized lending volume	**244.9**	**222.7**
Collateralization rate (%)	**35.2**	**37.3**

In the case of **traditional lending business**, 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 had risen to €133.2 billion as at June 30, 2022, compared with €132.6 billion as at December 31, 2021. The collateralization rate was 35.2 percent as at the reporting date (December 31, 2021: 37.3 percent).

7.2.6 Volume of closely monitored and non-performing loans

Closely monitored loans and forborne exposure

Fig. 19 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.

FIG. 19 – BANK SECTOR: CLOSELY MONITORED LENDING VOLUME AND FORBORNE EXPOSURE

€ million	Jun. 30, 2022	Dec. 31, 2021
Yellow list lending volume	**3,779**	3,348
of which: forborne exposure	125	120
Watchlist lending volume	**5,685**	4,397
of which: forborne exposure	1,074	753
Default list lending volume	**3,175**	3,363
of which: forborne exposure	1,726	1,878
Total lending volume on monitoring lists	**12,639**	**11,109**
of which: forborne exposure	2,925	2,751
Off-monitoring-list forborne exposure	**427**	**461**
Total forborne exposure[1]	**3,353**	**3,213**

1 Both on and off the monitoring lists.

The closely monitored lending volume rose by 14 percent from December 31, 2021 to June 30, 2022. This increase was largely due to customers of DZ BANK and was primarily a result of the war in Ukraine. This was also accompanied by a rise of 6 percent in the closely monitored forborne exposure. Including the off-monitoring-list forborne exposure, the overall growth of the forborne exposure totaled 4 percent.

Non-performing loans

As at June 30, 2022, the volume of non-performing loans had fallen to €3.2 billion from €3.4 billion as at December 31, 2021. The year-on-year decrease, which was mainly attributable to the reduction in the portfolio at DVB, was accompanied by a decline in the NPL ratio from 0.8 percent to 0.7 percent.

Fig. 20 shows key figures relating to the volume of non-performing loans.

FIG. 20 – BANK SECTOR: KEY FIGURES FOR NON-PERFORMING LOANS

	Jun. 30, 2022	Dec. 31, 2021
Total lending volume (€ billion)	450.0	430.7
Volume of non-performing loans (€ billion)[1]	3.2	3.4
Balance of loss allowances (€ billion)[2]	1.3	1.5
Coverage ratio (%)[3]	69.6	75.7
NPL ratio (%)[4]	0.7	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.

7.3 Credit portfolios particularly affected by acute global crises

The following sections describe credit portfolios in which the effects of acute global crises were more noticeable than in the rest of the credit portfolios. However, no significantly heightened risk was as yet evident in connection with the exposures in the affected portfolios as at the reporting date. They are described solely for reasons of transparency. The figures presented below are included in the disclosures for the lending volume as a whole (see section 7.2).

7.3.1 Credit portfolios particularly affected by the COVID-19 pandemic

The **automotive sector** has been in a state of upheaval for a number of years and is faced with a number of issues, notably low margins and huge capital requirements. COVID-19 lockdowns in China, shortages of base products (especially semiconductors), and the war in Ukraine led to supply chain disruptions that impacted on production in the first six months of the year. Increased costs for commodities, energy, and transportation also weighed heavily. DZ BANK's automotive finance portfolio, which is assigned to the corporates segment, is still deemed to be stable with a good credit quality. It is assumed that the general recovery in demand for vehicles will continue. However, this positive trend may slow because of the increasing strains on the sector. The European Parliament's decision to end the sale of vehicles with internal combustion engines by 2035 will further accelerate the switch to electric vehicles and so keep the pressure on borrowers to transform. The volume of lending in DZ BANK's automotive finance portfolio came to €5.0 billion as at June 30, 2022 (December 31, 2021: €4.5 billion).

DZ HYP's lending business with corporates includes financing for **hotels, department stores, and shopping malls**. In 2020 and 2021, these asset classes were identified as being subject to a heightened degree of uncertainty in view of the COVID-19 pandemic, government-imposed safeguards, and potential long-term structural changes. Nonetheless, those credit portfolios have shown themselves to be crisis-resistant overall due to their conservative finance structures, the quality of the real estate, and borrower credit ratings. No defaults occurred. In the last two years, the impact of the pandemic has been taken into account in the revenue projections and in appraisals to value mortgage properties as well as in the annual financial statements and ratings of borrowers. At present, the asset classes concerned are no longer subject to any significantly increased uncertainty. Nonetheless, there is the risk that hotels will be impacted heavily once more by COVID-19 if case numbers rise again in the autumn of this year and governments impose safeguards. Added to this is the risk that muted economic growth and rising inflation could have a negative effect on willingness to travel, which has picked up again recently.

Increased levels of uncertainty surround loans to **project developers and property developers** due to the increases in the cost of materials and energy since 2021 related to the pandemic and to shortages of materials and staff. This trend was further exacerbated by the war in Ukraine. Project developers and property developers responded to this by delaying the start of new projects.

As at June 30, 2022, the **volume** of corporate loans extended by DZ HYP amounted to a total of €47.3 billion (December 31, 2021: €47.6 billion). Of this total, the following amounts were attributable to the asset classes

particularly affected by the COVID-19 pandemic as at the reporting date (figures as at December 31, 2021 shown in parentheses):
- Hotel financing: €2.8 billion (€2.7 billion)
- Department store financing: €0.6 billion (€0.7 billion)
- Shopping mall financing: €2.9 billion (€2.9 billion)
- Property developer and project developer finance: €5.4 billion (€4.5 billion)

The **cruise ship industry**, for which **DZ BANK** provides funding (comprising cruise ship finance and the financing of cruise ship building), was also significantly impacted by the COVID-19 pandemic. However, unlike the portfolios previously referred to, the financing provided for the cruise ship industry has been assigned to the credit portfolios with increased risk content (see section 7.4.2).

The COVID-19 pandemic may continue to have an adverse impact on credit risk in the Bank sector in the second half of 2022. The rise in infection levels from the autumn onward, and the measures taken by governments to contain them, will together have a significant influence on the extent of the negative impact of the pandemic.

7.3.2 Credit portfolios particularly affected by the war in Ukraine and the Russian gas embargo

In the first half of the year, the **war in Ukraine** had a significantly negative impact on the credit ratings of borrowers in the countries affected directly (Russia, Ukraine, and Belarus). The exposure of Bank sector entities in these countries totaled €765 million as at June 30, 2022 (December 31, 2021: €959 million). The proportion of the Bank sector's total lending volume as at the reporting date was less than 1 percent, as was also the case at the end of 2021. The exposure was notable for export and trade finance as well as project finance and securities.

Fig. 21 shows the breakdown of the net lending volume by country affected.

FIG. 21 – BANK SECTOR: NET LENDING VOLUME IN COUNTRIES AFFECTED DIRECTLY BY THE WAR IN UKRAINE

€ million	Jun. 30, 2022	Dec. 31, 2021
Russia	184	222
Belarus	12	13
Ukraine	3	15
Total	**199**	**250**

Over and above the countries directly involved in the war in Ukraine, the conflict has a negative impact globally on the credit ratings of borrowers. This was reflected in the figures for the Bank sector's total lending volume (see section 7.2). The closely monitored lending volume had increased as at the reporting date as a result of the war in Ukraine (see section 7.2.6).

Initial analysis of the impact of the threatened **Russian gas embargo** on credit risk in the Bank sector was carried out. Individual parts of the portfolio were identified as being affected. No material negative impact on credit risk is currently evident.

7.3.3 Credit portfolios particularly affected by the Taiwan crisis

Tensions between China and Taiwan escalated significantly following a visit by a high-level US government delegation to Taiwan at the start of August 2022. China held military maneuvers just off the coast of Taiwan in the first half of August. It is currently assumed that the conflict between China and Taiwan will ease now that these maneuvers have ended. Nonetheless, the risk of unwelcome military activity has gone up significantly, which could lead to an increase in credit risk in the second half of 2022.

The net lending volume disbursed – predominantly by DZ BANK – to counterparties in Taiwan as at June 30, 2022 amounted to €311 million (December 31, 2021: €131 million) . Taiwan was assigned to the 1D rating class on the credit rating master scale as at June 30, 2022, the same rating as at December 31, 2021. The exposure is characterized by short-dated trade finance activities and longer-term project finance.

No increase in credit risk can currently be discerned as a result of the Taiwan crisis.

7.4 Credit portfolios with increased risk content

The credit portfolios with increased risk content are analyzed separately because of their significance for the risk position. The figures presented below are included in the above analyses of the total lending volume (see section 7.2).

7.4.1 Loans and advances to borrowers in eurozone periphery countries

As at June 30, 2022, loans and advances to borrowers in the countries directly affected by the **economic divergence in the eurozone** amounted to €5,407 million (December 31, 2021: €6,465 million). This mainly consisted of securities business. The decrease was mainly due to reductions in fair value and to disposals and maturities at DZ HYP.

Fig. 22 shows the borrower structures for the lending volume in the eurozone periphery countries.

FIG. 22 – BANK SECTOR: LOANS AND ADVANCES TO BORROWERS IN EUROZONE PERIPHERY COUNTRIES[1]

€ million	Jun. 30, 2022	Dec. 31, 2021
Portugal	**560**	917
of which: public sector	477	827
of which: non-public sector	83	90
of which: financial sector	-	-
Italy	**2,582**	3,002
of which: public sector	2,168	2,548
of which: non-public sector	414	454
of which: financial sector	131	144
Spain	**2,265**	2,547
of which: public sector	1,382	1,625
of which: non-public sector	883	922
of which: financial sector	320	273
Total	**5,407**	**6,465**
of which: public sector	4,027	4,999
of which: non-public sector	1,380	1,466
of which: financial sector	452	417

1 Unlike the other presentations of lending volume, traditional lending business in this case includes long-term equity investments.

7.4.2 Finance for cruise ships and cruise ship building

Cruise ship finance

Cruise ship finance in the Bank sector is mainly brought together under **DZ BANK**. The shipping companies that have been financed currently have adequate liquidity buffers. However, these buffers could decrease to a critical level if new dangerous variants of the COVID-19 virus suppress demand for cruises. Although the Omicron variant caused trips to either be cancelled or ended early in December 2021 and January 2022, the impact was limited. Occupancy and booking figures of the affected shipping companies showed an upward trend during the reporting period. However in the future, these companies will need to return to past revenue levels so that they can meet the increased levels of payment obligations that have arisen as a result of repayments being deferred in the past two years. The war in Ukraine only had a small impact on the cruise ship business.

As at June 30, 2022, the volume of cruise ship finance amounted to €1,059 million (December 31, 2021: €1,099 million). Of this total, €671 million was covered by export credit insurance as at June 30, 2022 (December 31, 2021: €678 million).

Finance for cruise ship building

A distinction is made between cruise ship finance and the financing of cruise ship building. This segment, which likewise only affects **DZ BANK** in the Bank sector, is still undergoing consolidation. In consultation with the parties ordering cruise ships, the order book has been stretched out, thereby ensuring a basic level of capacity utilization in the next few years. However, the shipyards that build cruise ships face the challenge of significantly reducing their production capacity and workforce capacity. The shipyards currently find themselves in the middle of this transformation process, which – together with rising energy and procurement costs – is also likely to affect customer credit quality in the second half of the year. This subportfolio is therefore classified as a portfolio with increased risk content.

The lending volume related to the financing of cruise ship building stood at €357 million as at June 30, 2022 (December 31, 2021: €341 million).

7.5 Risk position

7.5.1 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, 2022, the **risk capital requirement** amounted to €4,469 million (December 31, 2021: €5,037 million) with a **limit** of €6,437 million (December 31, 2021: €7,188 million). The decrease was mainly attributable to the reduced portfolios of DZ HYP in eurozone periphery countries.

Fig. 23 shows the credit value-at-risk together with the average probability of default and expected loss.

FIG. 23 – BANK SECTOR: FACTORS DETERMINING THE CREDIT VALUE-AT-RISK

	Average probability of default (%)		Expected loss (€ million)		Credit value-at-risk[1] (€ million)	
	Jun. 30, 2022	Dec. 31, 2021	Jun. 30, 2022	Dec. 31, 2021	Jun. 30, 2022	Dec. 31, 2021
Traditional lending business	0.4	0.5	423	432	2,431	2,448
Securities business	0.1	0.2	34	44	977	1,498
Derivatives and money market business	0.1	0.2	13	13	293	238
Total			469	489	3,701	4,184
Average	0.3	0.4				

Not relevant

1 As it is not possible to show the risk capital requirement including the capital buffer requirement in the analysis of credit-risk-bearing instruments, the risk capital requirement is presented without the capital buffer requirement.

7.5.2 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. 24.

FIG. 24 – BANK SECTOR: CREDIT VALUE-AT-RISK[1] FOR CREDIT PORTFOLIOS WITH INCREASED RISK CONTENT

€ million	Jun. 30, 2022	Dec. 31, 2021
Eurozone periphery countries	646	1,109
Cruise ship finance	13	13
Finance for cruise ship building	4	4

1 Excluding decentralized capital buffer requirement.

The decline in the credit value-at-risk for the Bank sector entities' exposure in the **eurozone periphery countries** was in line with the change in the loans and advances to borrowers in these countries.

The credit value-at-risk to finance **cruise ships** and **cruise ship building** amounted to €13 million and €4 million respectively as at June 30, 2022. The figures were unchanged in comparison with December 31, 2021 and stemmed entirely from DZ BANK.

8 Equity investment risk

The **carrying amounts of long-term equity investments** relevant for the measurement of equity investment risk amounted to €2,819 million as at June 30, 2022 (December 31, 2021: €2,953 million).

The **risk capital requirement** for equity investment risk was calculated to be €969 million as at the reporting date (December 31, 2021: €996 million). The **limit** was €1,230 million (December 31, 2021: €1,220 million).

9 Market risk

9.1 Value-at-risk

Fig. 25 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. 26 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 €45 million as at June 30, 2022 (December 31, 2021: €10 million).

The significant increase in the key value-at-risk figures for interest-rate risk, spread risk, and aggregate risk was primarily attributable to the high level of market volatility in the first half of 2022.

9.2 Risk capital requirement

As at June 30, 2022, the risk capital requirement for **market risk** amounted to €3,863 million (December 31, 2021: €3,713 million) with a limit of €6,680 million (December 31, 2021: €5,725 million).

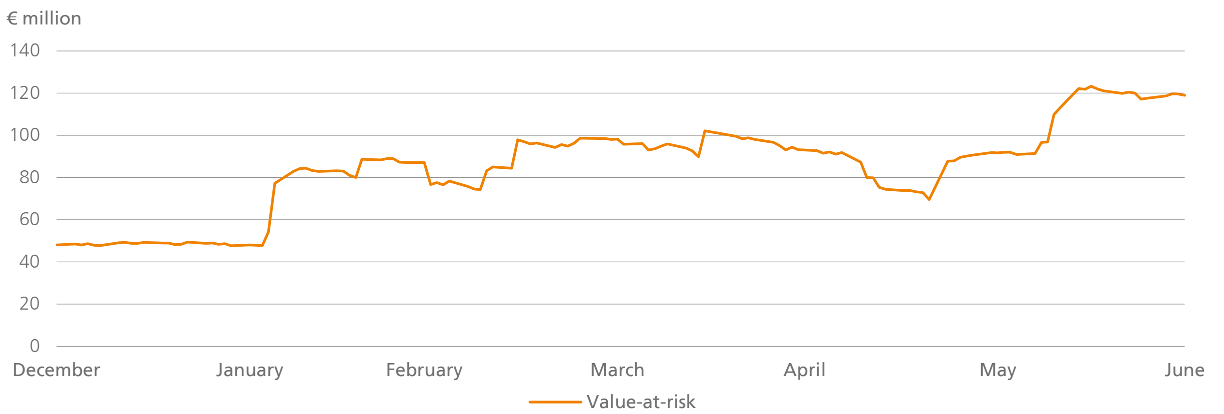
The Bank sector's risk capital requirement encompasses the **asset-management risk of UMH**. The asset-management risk as at June 30, 2022 amounted to €295 million (December 31, 2021: €347 million). The decline in risk was largely explained by the trend in capital markets.

FIG. 25 – BANK SECTOR: CHANGE IN MARKET RISK BY RISK SUBTYPES[1, 2]

€ million	Interest-rate risk	Spread risk	Equity risk[3]	Currency risk	Commodity risk	Diversification effect[4,5]	Aggregate risk
Jun. 30, 2022	**42**	**76**	**13**	**4**	**3**	**-20**	**119**
Average	28	60	12	3	3	-21	85
Maximum	50	76	14	6	4	-26	123
Minimum	9	41	11	1	2	-17	48
Dec. 31, 2021	**10**	**43**	**14**	**2**	**2**	**-22**	**48**

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 Total effects of diversification between the types of market risk for all consolidated management units.
5 The minimum and maximum amounts for the different subcategories of market risk may stem from different points in time during the reporting period. Consequently, they cannot be aggregated to produce the minimum or maximum aggregate risk due to the diversification effect.

FIG. 26 – 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.

10 Technical risk of a home savings and loan company

As at June 30, 2022, the **capital requirement** for the technical risk of a home savings and loan company amounted to €689 million (December 31, 2021: €639 million) with a **limit** of €720 million (December 31, 2021: €706 million). In the prevailing market conditions, stronger effects – that therefore lead to increased risk – result from the changes in the parameters 'customer behavior' and 'decline in new business' that are simulated in the risk calculation.

11 Business risk and reputational risk

As at June 30, 2022, the **risk capital requirement** for business risk (including reputational risk) amounted to €89 million (December 31, 2021: €407 million). The **limit** was €280 million as at the reporting date (December 31, 2021: €640 million). Reputational risk is included in the figures shown.

The decrease in risk was attributable to an improvement in the budgeted figures taken from the IFRS income statement that are used to calculate risk. The limit was also lowered to tie in with this decline in risk.

12 Operational risk

12.1 Impact of the war in Ukraine

The monitoring of sanctions necessitates manual transaction checks that entail an increased workload. This may result, for example, in delays to the execution of transactions, increased strain on staff or, if applicable, penalty interest payments for trading that involves securities subject to sanctions. As at June 30, 2022, the relevant risk indicators revealed latent increased risk. Risk indicators are intended to enable risk trends and concentrations to be identified at an early stage and to detect weaknesses in business processes.

12.2 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 therefore 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, 2021 to June 30, 2022 – represent the relevant reporting period for an analysis of net losses. The internal net losses from claims reported in this period and classified by operational risk subtype are shown and compared with their long-term mean in Fig. 27.

FIG. 27 – BANK SECTOR: NET LOSSES[1] BY OPERATIONAL RISK SUBTYPE

Proportion of total net losses (%)	July 1, 2021– Jun. 30, 2022	Long-term mean[2]
Compliance risk	38.8	44.4
Legal risk	38.1	36.7
Information risk including ICT risk	1.5	5.5
Security risk	0.7	2.0
Outsourcing risk	1.1	0.6
Project risk	5.1	0.8
Other operational risk	14.6	10.0

1 Internal losses.
2 The long-term mean is derived from loss data recorded since 2006.

In the past four quarters, internal losses were dominated by **compliance risk** and **legal risk**. In both of these risk subtypes, recognizing a provision on the basis of an alleged dereliction of duty in connection with capital markets transactions at the same time as reversing a provision for the potential reimbursement of fees led to a slight increase in losses overall. The proportion of the total internal losses attributable to the legal risk subtype thus continued to be above the long-term mean. Net losses related to **other operational risk** rose compared with the figure as at December 31, 2021 and were also higher than the long-term mean calculated as at June 30, 2022. The increase was particularly attributable to a loss that occurred as a result of the erroneous exercising of options.

By contrast, net losses for the **other risk subtypes** as at June 30, 2022 were on a par with the end of 2021, although the proportion of the total internal net losses attributable to these risk subtypes had declined owing to the increase in losses attributable to compliance risk, legal risk, and other operational risk.
Losses did not reach a critical level relative to the expected loss from operational risk at any point in the reporting year.

12.3 Risk position

The **risk capital requirement** for operational risk was calculated at €930 million as at June 30, 2022 (December 31, 2021: €941 million) with a **limit** of €1,112 million (December 31, 2021: €1,102 million).

Fig. 28 shows the structure of the risk profile for operational risk in the Bank sector and at DZ BANK based on **risk subtype**.

FIG. 28 – BANK SECTOR: DISTRIBUTION OF RISK CAPITAL REQUIREMENT FOR OPERATIONAL RISK, BY RISK SUBTYPE[1]

%	Jun. 30, 2022	Dec. 31, 2021
Compliance risk	32.0	32.5
Legal risk	20.0	20.6
Information risk including ICT risk	14.4	14.3
Security risk	5.6	5.5
Outsourcing risk	6.5	6.5
Project risk	7.5	7.4
Other operational risk	13.9	13.3

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, 2022 compared with the end of the previous year. In the first half of 2022, **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. The proportion of the risk capital requirement attributable to legal risk and compliance risk decreased slightly compared with December 31, 2021 due to the reversal of a provision for potential reimbursements of fees. The largest increase in the risk capital requirement was seen in **other operational risk**. It largely resulted from a loss associated with the erroneous exercising of options and from adjustments to the hypothetical scenarios for the incorrect communication/interpretation of business information and incorrect execution of transactions and processes.

Insurance sector

13 Actuarial risk

13.1 Impact of the war in Ukraine

In relation to credit insurance policies assigned to the **reinsurance business**, R+V imposed extensive underwriting restrictions in respect of Russian and Ukrainian counterparties in the first half of the year. A small volume of claims were recorded for these counterparties during the reporting period. The war in Ukraine did not lead to any significant increase in non-life actuarial risk, within which risk from credit insurance policies is included.

13.2 Claims rate trend in non-life insurance

Various storms that occurred in the first half of the year adversely resulted in expenses for the **direct non-life insurance business** of around €152 million. Reinsurance treaties are in place in order to reduce actuarial risk. The individual events that have occurred so far do not yet currently qualify for the reinsurance treaty for natural disaster events. Increased costs for basic claims, natural disaster claims, and major claims, combined with lower gains on settlements, led to an annual claims rate for the year as a whole and for the reporting year that was higher than in the comparative prior-year period.

In the **inward reinsurance business**, there were major claim events with claims incurred of €165 million in the first half of the year. The ratios for basic claims and medium claims declined, whereas the large claims ratio went up. Thanks to the provisions already recognized, no additional COVID-19-related expense is predicted for this year.

13.3 Risk position

As at June 30, 2022, the **overall solvency requirement** for **life actuarial risk** amounted to €655 million (December 31, 2021: €343 million) with a **limit** of €850 million (December 31, 2021: €600 million). The increase in risk was due to higher lapse risk resulting from the rise in interest rates during the first half of 2022.

As at the reporting date, the **overall solvency requirement** for **health actuarial risk** was €153 million (December 31, 2021: €231 million) with a **limit** of €300 million (December 31, 2021: €350 million). The decrease in risk was due to the decline in insurance liabilities as a consequence of the rise in interest rates.

As at June 30, 2022, the **overall solvency requirement** for **non-life actuarial risk** amounted to €1,775 million (December 31, 2021: €1,939 million) with a **limit** of €3,200 million (December 31, 2021: €4,600 million). The reduction in risk was largely due to decreased insurance liabilities as a consequence of the rise in interest rates.

14 Market risk

14.1 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 capital requirements for spread risk are calculated using a factor approach based on the relevant lending volume.

As at June 30, 2022, the **total lending volume** of R+V had declined by 13 percent to €90.8 billion (December 31, 2021: €104.5 billion). This decrease was primarily the result of a fall in the fair values of fixed-income securities as a consequence of the rise in interest rates.
The volume of lending in the **home finance** business totaled €14.2 billion as at June 30, 2022 (December 31, 2021: €13.1 billion). Of this amount, 85 percent (December 31, 2021: 87 percent) was accounted for by loans for less than 60 percent of the value of the property.

The volume of home finance was broken down by finance type as at the reporting date as follows (figures as at December 31, 2021 shown in parentheses):
- Consumer home finance: €12.8 billion (€11.9 billion)
- Commercial home finance: €0.1 billion (€0.1 billion)
- Commercial finance: €1.3 billion (€1.1 billion).

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

The financial sector and the public sector, which are the dominant **asset classes**, together accounted for 65 percent of the total lending volume as at June 30, 2022 (December 31, 2021: 67 percent).

The explanation of the asset class concept in the Bank sector (see section 7.2.1) applies analogously to the Insurance sector. Fig. 29 shows the breakdown of the lending volume by asset class.

FIG. 29 – INSURANCE SECTOR: LENDING VOLUME, BY ASSET CLASS

€ billion	Jun. 30, 2022	Dec. 31, 2021
Financials	39.8	46.7
Corporates	13.3	16.3
Public sector	19.0	22.9
Real estate (commercial and retail customers)	17.3	16.3
ABSs and ABCPs[1]	1.6	1.5
Other	-	0.8
Total	**90.8**	**104.5**

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

An analysis of the **geographical breakdown** of the lending volume in Fig. 30 reveals that Germany and other industrialized countries accounted for the lion's share – 91 percent – of the lending volume as at June 30, 2022 (December 31, 2021: 90 percent).

FIG. 30 – INSURANCE SECTOR: LENDING VOLUME, BY COUNTRY GROUP

€ billion	Jun. 30, 2022	Dec. 31, 2021
Germany	34.6	37.8
Other industrialized countries	47.8	56.6
of which: France	10.1	12.6
of which: USA	6.4	7.5
of which: Netherlands	5.5	6.0
Advanced economies	1.0	1.3
Emerging markets	4.2	5.2
Supranational institutions	3.1	3.7
Total	**90.8**	**104.5**

Obligations in connection with the life insurance business require investments with longer maturities. This is also reflected in the breakdown of **residual maturities** shown in Fig. 31. As at June 30, 2022, 85 percent (December 31, 2021: 86 percent) of the total lending volume had a residual maturity of more than five years. By contrast, 2 percent of the total lending volume was due to mature within one year as at June 30, 2022 (December 31, 2021: 3 percent).

FIG. 31 – INSURANCE SECTOR: LENDING VOLUME, BY RESIDUAL MATURITY

€ billion	Jun. 30, 2022	Dec. 31, 2021
≤ 1 year	2.2	2.6
> 1 year to ≤ 5 years	11.3	12.3
> 5 years	77.3	89.5
Total	**90.8**	**104.5**

The **rating structure** of the lending volume in the Insurance sector is shown in Fig. 32. Of the total lending volume as at June 30, 2022, 76 percent was attributable to investment-grade borrowers (December 31, 2021: 79 percent). The lending volume that is not rated, which made up 22 percent of the total lending volume (December 31, 2021: 19 percent), essentially comprised consumer home finance for which external ratings were not available. The unrated lending volume 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 32 – INSURANCE SECTOR: LENDING VOLUME, BY RATING CLASS

€ billion		Jun. 30, 2022	Dec. 31, 2021
Investment grade	1A	23.0	27.0
	1B	9.5	11.7
	1C	-	-
	1D	11.7	12.6
	1E	-	-
	2A	8.2	11.1
	2B	5.0	6.2
	2C	6.0	7.3
	2D	2.8	3.2
	2E	-	-
	3A	2.8	3.5
Non-investment grade	3B	0.3	0.3
	3C	0.4	0.5
	3D	-	-
	3E	0.2	0.2
	4A	0.1	0.1
	4B	0.4	0.5
	4C	-	0.1
	4D	-	-
	4E	-	-
Default		-	-
Not rated		20.3	20.2
Total		**90.8**	**104.5**

To rate the creditworthiness of the lending volume, R+V uses external ratings that have received general approval. It also applies its own expert ratings in accordance with the provisions of Credit Rating Agency Regulation III to validate the external credit ratings. R+V has defined the external credit rating as the maximum, even in cases where its own rating is better. The ratings calculated in this way are matched to the DZ BANK credit rating master scale using the methodology shown in Fig. 20 of the 2021 risk report.

In the analysis of **individual concentrations**, the ten counterparties associated with the largest lending volumes accounted for 17 percent of R+V's total lending volume as at June 30, 2022 (December 31, 2021: 18 percent).

14.2 Credit portfolios particularly affected by acute global crises

The credit portfolio in the countries directly affected by the **war in Ukraine** is shown below. It consisted of a small volume of securities. Almost the entire securities portfolio was sold after the end of 2021. No significantly heightened risk was as yet evident in connection with the remaining portfolio as at the reporting date. It is described solely for reasons of transparency. The figures presented below are included in the disclosures for the lending volume as a whole (see section 14.1).

R+V's net lending volume in Russia, Ukraine, and Belarus totaled €2 million as at June 30, 2022 (December 31, 2021: €191 million). This equated to less than 1 percent of the Insurance sector's total lending exposure as at the reporting date, as was also the case at the end of 2021.
Fig. 33 shows the breakdown of the net lending volume by country affected.

FIG. 33 – INSURANCE SECTOR: NET LENDING VOLUME IN COUNTRIES AFFECTED DIRECTLY BY THE WAR IN UKRAINE

€ million	Jun. 30, 2022	Dec. 31, 2021
Russia	-	115
Belarus	1	7
Ukraine	1	70
Total	**2**	**191**

Over and above the countries involved in the war in Ukraine, the conflict has a negative impact globally on the credit ratings of securities issuers. This was also reflected in R+V's other securities exposures, which showed minor rating downgrades in the first half of the year.

Initial analysis of the impact of the threatened **Russian gas embargo** on market risk in the Insurance sector was carried out. Individual parts of the portfolio were identified as being affected. No material negative impact on market risk is currently evident.

14.3 Credit portfolios with increased risk content

R+V's exposure in credit portfolios with increased risk content is analyzed separately because of its significance for the risk position in the Insurance sector. This currently only affects the exposure in **eurozone periphery countries**. The figures presented here are included in the above analyses of the total lending volume (see section 14.1).

Investments in eurozone periphery countries totaled €4,882 million as at June 30, 2022 (December 31, 2021: €5,822 million). This constituted a reduction of 16 percent, which was attributable to a fall in fair values.

Fig. 34 shows the country breakdown of the exposure.

FIG. 34 – INSURANCE SECTOR: EXPOSURE IN EUROZONE PERIPHERY COUNTRIES

€ million	Jun. 30, 2022	Dec. 31, 2021
Portugal	**42**	**49**
of which: public sector	31	40
of which: non-public sector	10	9
of which: financial sector	3	4
Italy	**2,262**	**2,844**
of which: public sector	1,683	1,866
of which: non-public sector	580	978
of which: financial sector	455	838
Spain	**2,579**	**2,929**
of which: public sector	1,356	1,607
of which: non-public sector	1,222	1,322
of which: financial sector	991	1,080
Total	**4,882**	**5,822**
of which: public sector	3,070	3,513
of which: non-public sector	1,812	2,309
of which: financial sector	1,449	1,922

14.4 Risk position

As at June 30, 2022, the **overall solvency requirement** for market risk amounted to €3,073 million (December 31, 2021: €3,169 million) with a **limit** of €3,880 million (December 31, 2021: €4,400 million). The decrease in risk was due to the lower fair values of investments as a consequence of the rise in interest rates.

Fig. 35 shows the overall solvency requirement for the various types of market risk.

FIG. 35 – INSURANCE SECTOR: OVERALL SOLVENCY REQUIREMENT FOR MARKET RISK, BY RISK SUBTYPE

€ million	Jun. 30, 2022	Dec. 31, 2021
Interest-rate risk	1,400	1,250
Spread risk	923	1,305
Equity risk	1,523	1,332
Currency risk	308	319
Real-estate risk	428	441
Total (after diversification)	**3,073**	**3,169**

The overall solvency requirement for market risk includes a **decentralized capital buffer requirement**. This capital buffer requirement covers the spread and migration risk arising from sub-portfolios of Italian government bonds while also taking account of the increase in market risk that could arise from refinement of the method for measuring interest-rate risk.

As at June 30, 2022, the decentralized capital buffer requirement for market risk totaled €285 million (December 31, 2021: €204 million). This uplift resulted from the recognition of a new capital buffer requirement for interest-rate risk.

15 Counterparty default risk

Receivables arising from ceded reinsurance amounted to €194 million as at June 30, 2022 (December 31, 2021: €121 million), with entities with an external rating of A or better making up 99 percent of this amount (December 31, 2021: 100 percent). As at the prior-year reporting date, receivables from entities with an external rating of BBB or worse made up less than 1 percent of the total volume. The remaining receivables related to entities without a rating.

Overdue receivables from policyholders and insurance brokers more than 90 days past due as at the reporting date amounted to €219 million as at June 30, 2022 (December 31, 2021: €149 million).

As at June 30, 2022, the **overall solvency requirement** for counterparty default risk amounted to €265 million (December 31, 2021: €235 million) with a **limit** of €350 million that was unchanged compared with the end of 2021. This increase was attributable to larger derivatives exposures and higher amounts past due.

16 Operational risk

As at June 30, 2022, the **overall solvency requirement** for operational risk amounted to €683 million (December 31, 2021: €718 million). The decrease in risk was due to the decline in risk drivers in the form of insurance liabilities as a consequence of the rise in interest rates. At €1,000 million, the **limit** as at the reporting date was unchanged compared with the end of the previous year.

17 Risks from entities in other financial sectors

As at June 30, 2022, the **overall solvency requirement** for risks in connection with non-controlling interests in insurance companies and with entities in other financial sectors stood at €130 million (unchanged on the value as at December 31, 2021). At €180 million, the **limit** was likewise unchanged compared with the end of the previous year.