Notes

A General disclosures

» 01 Basis of preparation

Pursuant to section 115 of the German Securities Trading Act (WpHG) in conjunction with section 117 no. 2 WpHG, the interim consolidated financial statements of DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main, (DZ BANK) for the first half of the 2024 financial year have been prepared in accordance with the provisions of the International Financial Reporting Standards (IFRS), as adopted by the European Union (EU). In particular, the requirements of IAS 34 *Interim Financial Reporting* have been taken into account.

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

» 02 Accounting policies and estimates

Changes in accounting policies

The financial statements of the entities consolidated in the DZ BANK Group have been prepared using uniform accounting policies. The accounting policies used to prepare these financial statements were the same as those applied in the consolidated financial statements for the 2023 financial year, unless these policies are subject to the amendments described below.

First-time application in 2024 of changes in IFRS

The listed amendments to IFRS have been applied for the first time in DZ BANK's interim consolidated financial statements for the first half of the 2024 financial year:

- *Lease Liability in a Sale and Leaseback* (Amendments to IFRS 16 Leases)
- *Classification of Liabilities as Current or Non-current* and *Non-current Liabilities with Covenants* (Amendments to IAS 1 *Presentation of Financial Statements*)
- *Supplier Finance Arrangements* (Amendments to IAS 7 *Statement of Cash Flows* and IFRS 7 *Financial Instruments: Disclosures*)

The amendments to IFRS 16 clarify that the leaseback liability arising in a sale and leaseback transaction with variable payments that do not depend on an index or interest rate constitutes a lease liability pursuant to IFRS 16. They also clarify that the initial measurement requirements in IFRS 16.100(a) apply to the recognition of the right-of-use asset and the gain or loss from the sale and leaseback. Finally, the amendments clarify that the seller-lessee subsequently measures the right-of-use asset arising from the leaseback by applying IFRS 16.29-35. These amendments to IFRS 16 do not have any impact on the accounting treatment of the Group's sale-and-leaseback transactions.

The amendments to IAS 1 provide further details on how an entity must recognize debt and other liabilities on its balance sheet where the settlement date is uncertain. Such debt and other liabilities must be classified as either current (due or potentially due to be settled within one year) or non-current. The amendments also aim to improve the information that an entity should provide if its right to postpone settling a debt by 12 months or more is subject to covenants. The amendments to IAS 1 have no impact on DZ BANK's consolidated financial statements because there is no distinction between current and non-current liabilities on its balance sheet.

The amendments to IFRS 16 and IAS 1 must be applied for the first time to financial years beginning on or after January 1, 2024; early adoption is permitted.

The amendments to IAS 7 *Statement of Cash Flows* and IFRS 7 *Financial Instruments* define additional disclosure requirements regarding supply chain finance arrangements. The aim is to make the impact of such arrangements on liabilities, cash flows, and liquidity risk more transparent. In the future, an entity will have to describe the contractual terms and conditions of such finance arrangements under IAS 7 and IFRS 7. It will also have to indicate the associated line items and their carrying amounts at the start and end of the reporting period, disclose the range of payment due dates for the relevant transactions and for comparable other liabilities, and state any risk concentrations. These amendments must be applied to financial years beginning on or after January 1, 2024. The amendments to IAS 7 and IFRS 7 have no impact on DZ BANK's consolidated financial statements.

Changes in presentation

As a consequence of the adjustments resulting from new knowledge gained in the second half of 2023 that was set out in note 02 (accounting policies and estimates) of the consolidated financial statements as at December 31, 2023, the following amounts for the prior-year period have been adjusted in the income statement and statement of comprehensive income.

Income statement for the period January 1 to June 30, 2023

€ million	Jan. 1– Jun. 30, 2023 before restatement	Amount of restatement	**Jan. 1– Jun. 30, 2023 after restatement**
(…)			
Insurance service result	1,163	-31	**1,132**
Insurance revenue	6,209	-41	**6,168**
Insurance service expenses	-4,957	10	**-4,947**
Net income/expenses from reinsurance contracts held	-89	-	**-89**
(…)			
Insurance finance income or expenses	-2,496	9	**-2,487**
(…)			
Profit before taxes	1,954	-22	1,932
Income taxes	-542	6	**-536**
Net profit	**1,412**	**-15**	**1,397**
Attributable to:			
Shareholders of DZ BANK	1,365	-14	**1,351**
Non-controlling interests	47	-2	**45**

Statement of comprehensive income for the period January 1 to June 30, 2023

€ million	Jan. 1–Jun. 30, 2023 before restatement	Amount of restatement	Jan. 1–Jun. 30, 2023 after restatement
Net profit	1,412	-15	1,397
Other comprehensive income/loss	209	-85	124
Items that may be reclassified to the income statement	**-188**	**-85**	**-273**
(...)			
Insurance finance income or expenses included in other comprehensive income	-1,107	-122	-1,229
(...)			
Income taxes	-7	37	30
(...)			
Total comprehensive income/loss	**1,621**	**-100**	**1,521**
Attributable to:			
Shareholders of DZ BANK	1,552	-91	1,461
Non-controlling interests	69	-9	60

The aforementioned changes result in related adjustments to the statement of changes in equity and statement of cash flows as well as to the associated disclosures in note 03 (segment information), note 10 (insurance finance income or expenses), note 15 (items reclassified to the income statement), note 16 (income taxes relating to components of other comprehensive income), note 37 (equity), note 45 (insurance revenue), note 46 (presentation of income and expense in the insurance business), and note 47 (change in the carrying amounts of insurance contract liabilities).

As a consequence of the changes to the statement of cash flows that were set out in note 02 (accounting policies and estimates) of the consolidated financial statements as at December 31, 2023, the comparative disclosures have been adjusted in the statement of cash flows for the reporting period January 1 to June 30, 2024, primarily in relation to the assignment of cash and non-cash changes. This resulted in changes to the amounts in the reconciliation of net profit to cash flows from operating activities and in cash flows from investing activities.

As a consequence of the changed assignment to the main geographical markets in the disclosures on revenue from contracts with customers – specifically in the disclosures on revenue from contracts with customers, broken down by operating segment – that were set out in note 02 (accounting policies and estimates) of the consolidated financial statements as at December 31, 2023, the comparative disclosures have also been adjusted for the reporting period January 1 to June 30, 2024.

Sources of estimation uncertainty

It is sometimes necessary to make assumptions and estimates in accordance with the relevant financial reporting standards in order to determine the carrying amounts of assets, liabilities, income, and expenses recognized in the interim consolidated financial statements. These assumptions and estimates are based on historical experience, planning, and expectations or forecasts regarding future events.

Assumptions and estimates are used primarily in determining the fair value of financial assets and financial liabilities and in identifying any impairment of financial assets. Estimates also have a material impact on determining the impairment of goodwill or intangible assets acquired as part of business combinations. Furthermore, assumptions and estimates affect the measurement of right-of-use assets, insurance contract liabilities, other assets held by insurance companies, provisions for employee benefits, provisions for share-based payment transactions, provisions relating to building society operations, and other provisions as well as the recognition and measurement of income tax assets and income tax liabilities.

B Disclosures relating to the income statement and the statement of comprehensive income

» 03 Segment information

Information on operating segments

INFORMATION ON OPERATING SEGMENTS FOR THE PERIOD JANUARY 1 TO JUNE 30, 2024

€ million	BSH	R+V	TeamBank	UMH
Net interest income	282	-	262	31
Net fee and commission income	-1	-	-18	1,126
Gains and losses on trading activities	-	-	-	-
Gains and losses on investments	-	-	-	5
Other gains and losses on valuation of financial instruments	-	-	-	69
Gains and losses from the derecognition of financial assets measured at amortized cost	-	-	-	-
Insurance service result	-	954	-	-
Gains and losses on investments held by insurance companies and other insurance company gains and losses	-	3,033	-	-
Insurance finance income or expenses	-	-3,407	-	-
Gains and losses from the derecognition of financial assets measured at amortized cost in the insurance business	-	-	-	-
Loss allowances	-6	-	-86	-
Administrative expenses	-249	-	-143	-612
Other net operating income	22	6	4	-3
Profit/loss before taxes	**47**	**586**	**19**	**616**
Cost/income ratio (%)	82.2	-	57.7	49.8
Regulatory RORAC (%)	7.4	12.5	7.5	>100.0
Average own funds/solvency requirement	1,266	9,392	510	660
Total assets/total equity and liabilities as at Jun. 30, 2024	81,945	130,810	10,791	4,853

	DZ BANK – CICB	DZ HYP	DZ PRIVAT-BANK	VR Smart Finanz	DZ BANK – holding function	Other/ Consolidation	**Total**
	791	389	89	69	-77	522	2,358
	312	5	115	-17	-	43	1,565
	-72	-	12	-	-	-413	-473
	7	-	-	-	-	-	12
	88	-25	-22	-	-	2	112
	37	-	-1	-	-	-	36
	-	-	-	-	-	16	970
	-	-	-	-	-	-88	2,945
	-	-	-	-	-	-	-3,407
	-	-	-	-	-	2	2
	-53	-39	-	-23	-	1	-206
	-728	-131	-146	-39	-117	-111	-2,276
	1	9	5	-1	-	30	73
	383	**208**	**52**	**-10**	**-194**	**4**	**1,711**
	62.5	34.7	73.7	76.5	-	-	54.3
	13.7	31.1	30.9	-12.3	-	-	17.8
	5,606	1,339	337	163	-	-	19,273
	392,695	86,396	25,289	3,554	23,704	-95,930	664,107

INFORMATION ON OPERATING SEGMENTS FOR THE PERIOD JANUARY 1 TO JUNE 30, 2023

€ million	BSH	R+V	TeamBank	UMH
Net interest income	244	-	268	17
Net fee and commission income	-6	-	-22	988
Gains and losses on trading activities	-	-	-	-
Gains and losses on investments	-	-	-	-2
Other gains and losses on valuation of financial instruments	3	-	-1	71
Gains and losses from the derecognition of financial assets measured at amortized cost	-	-	-	-
Insurance service result	-	1,122	-	-
Gains and losses on investments held by insurance companies and other insurance company gains and losses	-	2,104	-	-
Insurance finance income or expenses	-	-2,487	-	-
Gains and losses from the derecognition of financial assets measured at amortized cost in the insurance business	-	3	-	-
Loss allowances	-4	-	-51	-
Administrative expenses	-269	-	-143	-595
Other net operating income	18	-2	6	-37
Profit/loss before taxes	**-14**	**740**	**57**	**442**
Cost/income ratio (%)	>100.0	-	57.0	57.4
Regulatory RORAC (%)	-2.3	16.6	23.4	>100.0
Average own funds/solvency requirement	1,261	8,895	487	649
Total assets/total equity and liabilities as at Dec. 31, 2023	84,369	127,039	10,640	5,156

	DZ BANK – CICB	DZ HYP	DZ PRIVAT-BANK	VR Smart Finanz	DZ BANK – holding function	Other/ Consolidation	**Total**
	658	346	70	60	-55	255	**1,863**
	203	5	109	-14	-	51	**1,314**
	584	-1	10	-	-	-300	**293**
	-1	-	-	-	-	-5	**-8**
	-91	27	3	-	-	51	**63**
	5	-	-	-	-	-	**5**
	-	-	-	-	-	10	**1,132**
	-	-	-	-	-	-29	**2,075**
	-	-	-	-	-	-	**-2,487**
	-	-	-	-	-	-	**3**
	36	-20	-	-12	-	-1	**-52**
	-732	-153	-144	-37	-139	-108	**-2,320**
	35	9	5	-3	-	20	**51**
	697	**212**	**53**	**-6**	**-194**	**-55**	**1,932**
	52.5	39.6	73.1	86.0	-	-	**53.9**
	25.7	31.4	33.0	-7.7	-	-	**20.8**
	5,421	1,354	320	160	-	-	**18,548**
	375,464	87,410	26,190	3,454	23,077	-98,210	**644,589**

General information on operating segments

The information on operating segments has been prepared using the management approach in accordance with IFRS 8. Under this standard, external reporting must include segment information that is used internally for the management of the entity and for the purposes of quantitative reporting to the chief operating decision-makers. The information on operating segments has therefore been prepared on the basis of the internal management reporting system.

Definition of operating segments

Segmentation is fundamentally based on the integrated risk and capital management system, the function of which is to create transparency, notably in respect of the risk structure and risk-bearing capacity of the individual management units. The segment information presents separate disclosures for the management units DZ HYP AG, Hamburg/Münster, (DZ HYP), TeamBank AG Nürnberg, Nuremberg, (TeamBank), DZ PRIVATBANK, and the BSH, R+V, UMH, and VR Smart Finanz subgroups. DZ BANK is broken down into the central institution and corporate bank (DZ BANK – CICB) and the group management function (DZ BANK – holding function) in line with the internal financial reporting structure. The DZ BANK – CICB operating segment comprises the cooperative central institution function, which supports the operating activities of the local cooperative banks, and the corporate bank function. DZ BANK – holding function is mainly used to pool tasks carried out on behalf of the DZ BANK Group in relation to commercial law, tax, and prudential supervision. The total assets of DZ BANK – holding function include the equity, plus a number of other items such as a notional carrying amount for the long-term equity investment in DZ BANK – CICB, together with the carrying amounts of the long-term equity investments in the other management units. The notional long-term equity investment in DZ BANK – CICB is measured in an amount equating to 11 percent of the risk-weighted assets of DZ BANK – CICB. DZ BANK – holding function does not constitute an operating segment within the meaning of IFRS 8.5 but is presented separately in line with the internal reporting structure. All other companies in the DZ BANK Group, which are not required to provide regular quantitative reports to the chief operating decision-makers, and the consolidations are reported on an aggregated basis under Other/Consolidation.

Presentation of operating segments

Interest income and associated interest expenses generated by the operating segments are offset and reported as net interest income in the information on operating segments because, from a group perspective, the operating segments are managed solely on the basis of the net figure.

Measurement

Internal reporting to the chief operating decision-makers is primarily based on the IFRS accounting and measurement principles applicable to the DZ BANK Group.

Intragroup transactions between operating segments and internal transactions in the DZ BANK – CICB operating segment are carried out on an arm's-length basis. These transactions are predominantly reported internally using the financial reporting standards applied to external financial reporting.

The key indicators for assessing the performance of the operating segments are profit/loss before taxes, the cost/income ratio, and the return on risk-adjusted capital (regulatory RORAC).

The cost/income ratio shows the ratio of administrative expenses to operating income and reflects the economic efficiency of the operating segment concerned.

Operating income 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.

Regulatory RORAC is a risk-adjusted performance measure. It reflects the relationship between profit before taxes and the average own funds for the year (calculated as an average of the monthly figures) in accordance with the own funds/solvency requirements for the financial conglomerate. It therefore shows the return on the regulatory risk capital employed.

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 are 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 are primarily the result of the elimination of intragroup dividend payments and are also attributable to the early redemption of issued bonds and commercial paper acquired by entities in the DZ BANK Group other than the issuer. Internal transactions in the DZ BANK – CICB operating segment are 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.

» 04 Net interest income

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
INTEREST INCOME AND CURRENT INCOME AND EXPENSE	**7,993**	**6,135**
Interest income from	**7,953**	**6,093**
Lending and money market business	6,534	5,101
Bonds and other fixed-income securities	608	404
Portfolio hedges of interest-rate risk	813	595
Financial assets with a negative effective interest rate	-3	-6
Other assets	1	-1
Current income and expense from	**41**	**42**
Shares and other variable-yield securities	15	15
of which income from other shareholdings	4	9
Investments in subsidiaries	3	2
Entities accounted for using the equity method	22	25
of which relating to investments in joint ventures	24	19
of which relating to investments in associates	-2	6
Income from profit-pooling, profit-transfer and partial profit-transfer agreements	1	-
INTEREST EXPENSE ON	**-5,635**	**-4,273**
Deposits from banks and customers	-4,003	-3,294
Debt certificates issued including bonds	-1,380	-720
Subordinated capital	-80	-75
Portfolio hedges of interest-rate risk	-178	-187
Financial liabilities with a positive effective interest rate	8	12
Provisions and other liabilities	-2	-8
Total	**2,358**	**1,863**

The interest income from other assets included gains from non-credit-risk-related modifications of €0 million (first half of 2023: €2 million) and losses from non-credit-risk-related modifications of €0 million (first half of 2023: €3 million), such gains and losses resulting from financial assets. The interest expense on provisions and other liabilities included interest expense on lease liabilities of €4 million (first half of 2023: €4 million).

» 05 Net fee and commission income

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Fee and commission income	**2,838**	**2,599**
Securities business	2,202	1,989
Asset management	190	167
Payments processing including card processing	180	190
Lending business and trust activities	99	91
Financial guarantee contracts and loan commitments	55	44
International business	6	6
Building society operations	18	18
Other	88	94
Fee and commission expenses	**-1,273**	**-1,285**
Securities business	-908	-929
Asset management	-120	-101
Payments processing including card processing	-106	-108
Lending business	-39	-40
Financial guarantee contracts and loan commitments	-6	-6
Building society operations	-35	-36
Other	-60	-65
Total	**1,565**	**1,314**

Fee and commission income included revenue from contracts with customers pursuant to IFRS 15 in an amount of €2,836 million (first half of 2023: €2,592 million); see note 53.

» 06 Gains and losses on trading activities

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Gains and losses on non-derivative financial instruments and embedded derivatives	-162	-937
of which gains and losses on financial instruments designated as at fair value through profit or loss that are related to derivatives held for trading purposes	283	-68
Gains and losses on derivatives	-387	1,216
Gains and losses on exchange differences	76	14
Total	**-473**	**293**

Gains and losses on exchange differences included currency translation gains of €19 million on financial instruments not measured at fair value through profit or loss (first half of 2023: gains of €9 million).

» 07 Gains and losses on investments

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Gains and losses on the disposal of bonds and other fixed-income securities	**7**	**-1**
Gains and losses on the disposal of shares and other variable-yield securities	**5**	**-2**
Gains and losses on investments in associates	**-**	**-5**
Impairment losses	-	-8
Reversals of impairment losses	-	3
Total	**12**	**-8**

» 08 Other gains and losses on valuation of financial instruments

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Gains and losses from fair value hedge accounting	**6**	**-27**
Gains and losses on derivatives used for purposes other than trading	**25**	**68**
Gains and losses on financial instruments designated as at fair value through profit or loss	**16**	**-21**
Gains and losses on non-derivative financial instruments and embedded derivatives that are not related to derivatives held for trading purposes	77	-79
Gains and losses on derivatives	-61	58
Gains and losses on financial assets mandatorily measured at fair value through profit or loss	**65**	**43**
Total	**112**	**63**

Gains and losses on derivatives used for purposes other than trading result from the recognition and measurement of derivatives that are used for economic hedging but are not included in hedge accounting and/or are not related to financial instruments designated as at fair value through profit or loss.

» 09 Gains and losses on investments held by insurance companies and other insurance company gains and losses

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Income from investments held by insurance companies	**4,776**	3,369
Interest income and current income	1,411	1,247
Income from reversals of impairment losses and reversals of loss allowances, and unrealized gains	393	119
Gains on valuation through profit or loss of investments held by insurance companies	2,552	1,791
Gains on disposals	421	212
Expenses in connection with investments held by insurance companies	**-1,416**	-1,098
Administrative expenses	-88	-96
Depreciation/amortization expense, additions to loss allowances, and impairment losses and unrealized losses	-85	-236
Losses on valuation through profit or loss of investments held by insurance companies	-590	-452
Losses on disposals	-653	-315
Other non-insurance gains and losses	**-415**	-196
Total	**2,945**	**2,075**

Other non-insurance gains and losses included interest expense on lease liabilities amounting to €1 million (first half of 2023: €0 million).

Income from and expenses in connection with investments held by insurance companies included additions to loss allowances of €20 million (first half of 2023: €11 million) and reversals of loss allowances of €34 million (first half of 2023: €32 million).

» 10 Insurance finance income or expenses

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Insurance finance income or expenses from insurance contracts	-3,409	-2,488
Insurance finance income or expenses from reinsurance contracts held	3	1
Total	**-3,407**	**-2,487**

» 11 Loss allowances

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Loss allowances for loans and advances to banks	**-1**	**9**
Additions	-18	-19
Reversals	15	27
Recoveries on loans and advances to banks previously impaired	2	1
Loss allowances for loans and advances to customers	**-196**	**-81**
Additions	-1,361	-1,122
Reversals	1,128	985
Directly recognized impairment losses	-23	-23
Recoveries on loans and advances to customers previously impaired	43	60
Other	17	18
Loss allowances for investments	**-**	**6**
Additions	-12	-6
Reversals	12	12
Loss allowances for other assets	**-**	**-1**
Reversals	-	1
Directly recognized impairment losses	-1	-2
Other loss allowances for loans and advances	**-9**	**14**
Additions to and reversals of provisions for loan commitments	-9	18
Additions to and reversals of provisions for financial guarantee contracts	-6	-4
Additions to and reversals of other provisions for loans and advances	7	-1
Total	**-206**	**-52**

Gains and losses from credit-risk-related modifications and other gains and losses on financial assets that are purchased or originated credit-impaired assets (POCI assets) are reported under the 'Other' line item. Other gains and losses on POCI assets consist of the changes in the loss allowances for these assets within the reporting period.

» 12 Administrative expenses

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Staff expenses	-1,089	-1,044
General and administrative expenses	-1,048	-1,135
Depreciation and amortization	-139	-141
Total	**-2,276**	**-2,320**

» 13 Other net operating income

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Income from the reversal of provisions and accruals	41	74
Gains and losses on non-current assets and disposal groups classified as held for sale	19	3
Restructuring expenses	-13	-
Gains on the disposal of other assets	12	11
Income and expense from impairment losses on other intangible assets, and reversals thereof, and from disposals of other intangible assets	-1	-50
Residual other net operating income	17	15
Total	**73**	**51**

» 14 Income taxes

IAS 34 states that income taxes in interim consolidated financial statements are to be calculated on the basis of the best possible estimate of the weighted average tax rate for the year as a whole. This tax rate is based on the legislation that is in force or has been adopted at the relevant balance sheet date.

» 15 Items reclassified to the income statement

The following amounts were recognized in other comprehensive income/loss or reclassified from other comprehensive income/loss to the income statement in the reporting period:

€ million	Jan. 1–Jun. 30, 2024	Jan. 1–Jun. 30, 2023
Gains and losses on debt instruments measured at fair value through other comprehensive income	**-1,520**	935
Gains (+)/losses (-) arising during the reporting period	-1,914	845
Gains (-)/losses (+) reclassified to the income statement during the reporting period	394	90
Exchange differences on currency translation of foreign operations	**6**	-1
Gains (+)/losses (-) arising during the reporting period	6	-1
Insurance finance income or expenses included in other comprehensive income	**821**	-1,229
Gains (+)/losses (-) arising during the reporting period	821	-1,229
Share of other comprehensive income/loss of joint ventures and associates accounted for using the equity method	**2**	-8
Gains (+)/losses (-) arising during the reporting period	2	-8

» 16 Income taxes relating to components of other comprehensive income

The table below shows the income taxes on the various components of other comprehensive income:

€ million	Jan. 1–Jun. 30, 2024			Jan. 1–Jun. 30, 2023		
	Amount before taxes	Income taxes	Amount after taxes	Amount before taxes	Income taxes	Amount after taxes
Items that may be reclassified to the income statement	**-691**	**207**	**-484**	-303	30	-273
Gains and losses on debt instruments measured at fair value through other comprehensive income	-1,520	528	-992	935	-239	696
Exchange differences on currency translation of foreign operations	6	-7	-1	-1	2	1
Insurance finance income or expenses included in other comprehensive income	821	-314	508	-1,229	268	-962
Share of other comprehensive income/loss of joint ventures and associates accounted for using the equity method	2	-	2	-8	-	-8
Items that will not be reclassified to the income statement	**-160**	**113**	**-47**	549	-153	397
Gains and losses on equity instruments for which the fair value OCI option has been exercised	259	-23	236	267	-67	201
Gains and losses in relation to financial liabilities for which the fair value option has been exercised, attributable to changes in own credit risk	-550	172	-378	316	-99	217
Gains and losses arising from remeasurement of defined benefit plans	132	-37	95	-34	13	-21
Total	**-851**	**320**	**-531**	**247**	**-122**	**124**

C Balance sheet disclosures

» 17 Cash and cash equivalents

€ million	Jun. 30, 2024	Dec. 31, 2023
Cash on hand	291	366
Balances with central banks	104,227	101,463
Total	**104,518**	**101,830**

» 18 Loans and advances to banks

	Repayable on demand		Other loans and advances		Total	
€ million	Jun. 30, 2024	Dec. 31, 2023	Jun. 30, 2024	Dec. 31, 2023	Jun. 30, 2024	Dec. 31, 2023
Domestic banks	**4,272**	4,945	**121,292**	117,557	**125,564**	122,502
Affiliated banks	3,482	2,831	114,512	115,153	117,994	117,984
Other banks	790	2,115	6,780	2,404	7,570	4,519
Foreign banks	**1,715**	2,108	**9,912**	4,256	**11,627**	6,364
Total	**5,987**	7,054	**131,204**	121,813	**137,191**	128,867

» 19 Loans and advances to customers

€ million	Jun. 30, 2024	Dec. 31, 2023
Loans and advances to domestic customers	180,521	178,389
Loans and advances to foreign customers	27,160	26,388
Total	**207,681**	**204,776**

» 20 Hedging instruments (positive fair values)

Hedging instruments (positive fair values) amounted to €955 million (December 31, 2023: €923 million) and resulted solely from derivatives used as fair value hedges.

» 21 Financial assets held for trading

€ million	Jun. 30, 2024	Dec. 31, 2023
DERIVATIVES (POSITIVE FAIR VALUES)	**16,014**	**16,482**
Interest-linked contracts	13,571	13,799
Currency-linked contracts	1,316	1,759
Share-/index-linked contracts	901	688
Credit derivatives	226	225
Other contracts	1	11
BONDS AND OTHER FIXED-INCOME SECURITIES	**11,556**	**8,334**
Money market instruments	928	60
Bonds	10,628	8,275
SHARES AND OTHER VARIABLE-YIELD SECURITIES	**1,771**	**1,329**
Shares	1,771	1,325
Investment fund units	-	4
RECEIVABLES	**3,184**	**8,815**
of which from affiliated banks	767	816
of which from other banks	2,039	7,522
Money market placements	**2,210**	**7,815**
with banks	2,210	7,798
with customers	-	17
Promissory notes and registered bonds	**974**	**1,000**
from banks	596	539
from customers	378	461
Total	**32,525**	**34,961**

» 22 Investments

€ million	Jun. 30, 2024	Dec. 31, 2023
Bonds and other fixed-income securities	**50,912**	**44,453**
Money market instruments	1,352	925
Bonds	49,559	43,527
Shares and other variable-yield securities	**3,005**	**2,880**
Shares and other shareholdings	379	388
Investment fund units	2,626	2,492
Investments in subsidiaries	**205**	**180**
Investments in joint ventures	**348**	**312**
Investments in associates	**170**	**145**
Total	**54,640**	**47,970**

The carrying amount of investments in joint ventures accounted for using the equity method totaled €348 million (December 31, 2023: €312 million). €149 million of the investments in associates has been accounted for using the equity method (December 31, 2023: €139 million).

» 23 Investments held by insurance companies

€ million	Jun. 30, 2024	Dec. 31, 2023
Investment property	3,799	3,866
Investments in subsidiaries	760	810
Investments in joint ventures	62	62
Investments in associates	23	-
Mortgage loans	11,959	12,008
Promissory notes and loans	5,802	5,996
Registered bonds	5,639	5,531
Other loans	955	1,014
Variable-yield securities	12,227	11,871
Fixed-income securities	54,070	53,647
Derivatives (positive fair values)	66	159
Deposits with ceding insurers and other investments	104	40
Assets related to unit-linked contracts	23,033	20,563
Total	**118,497**	**115,568**

» 24 Property, plant and equipment, investment property, and right-of-use assets

€ million	Jun. 30, 2024	Dec. 31, 2023
Land and buildings	851	858
Office furniture and equipment	172	178
Investment property	279	280
Right-of-use assets	548	554
Total	**1,850**	**1,870**

» 25 Other assets

€ million	Jun. 30, 2024	Dec. 31, 2023
Other assets held by insurance companies	3,364	3,578
Goodwill	155	155
Other intangible assets	449	437
of which software	396	388
of which acquired customer relationships	6	10
Other loans and advances	595	526
Residual other assets	1,605	1,149
Total	**6,167**	**5,845**

Residual other assets included initial margins from client clearing of €1,082 million (December 31, 2023: €522 million).

The breakdown of other assets held by insurance companies is as follows:

€ million	Jun. 30, 2024	Dec. 31, 2023
Intangible assets	149	160
Reinsurance contract assets	330	368
Insurance contract assets	-	1
Receivables	976	1,028
Credit balances with banks, checks and cash on hand	526	647
Property, plant and equipment	430	424
of which right-of-use assets held by insurance companies	57	64
Residual other assets	953	952
Loss allowances	-2	-2
Total	**3,364**	**3,578**

» 26 Loss allowances

Loss allowances for loans and advances to banks and for loans and advances to customers also comprise the loss allowances recognized for finance lease receivables.

The following table shows the changes in loss allowances, which are reported on the assets side of the balance sheet, broken down by individual balance sheet item:

	Loans and advances to banks			Loans and advances to customers			
€ million	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	POCI assets
Balance as at Jan. 1, 2023	17	5	32	244	535	1,157	18
Additions	15	1	3	120	434	553	14
Utilizations	-	-	-	-	-1	-96	-2
Reversals	-17	-3	-8	-218	-293	-461	-13
Other changes	-	-	1	108	-163	54	-5
Balance as at Jun. 30, 2023	**16**	**3**	**27**	**255**	**512**	**1,208**	**11**
Balance as at Jan. 1, 2024	15	2	26	243	504	1,430	18
Additions	16	1	1	113	497	722	25
Utilizations	-	-	-	-	-1	-104	-3
Reversals	-13	-1	-2	-201	-267	-633	-24
Other changes	-	-	1	85	-154	88	-
Balance as at Jun. 30, 2024	**19**	**3**	**26**	**240**	**580**	**1,504**	**17**

	Investments			Other assets	Total
€ million	Stage 1	Stage 2	Stage 3	Stage 1	
Balance as at Jan. 1, 2023	4	11	4	2	2,029
Additions	1	1	1	-	1,143
Utilizations	-	-	-	-	-100
Reversals	-4	-2	-1	-1	-1,021
Other changes	3	-3	-	-	-5
Balance as at Jun. 30, 2023	**3**	**6**	**4**	**1**	**2,047**
Balance as at Jan. 1, 2024	3	1	4	1	2,248
Additions	1	1	4	-	1,382
Utilizations	-	-	-3	-	-110
Reversals	-1	-2	-5	-	-1,148
Other changes	-	-	-	-	21
Balance as at Jun. 30, 2024	**3**	**1**	**-**	**-**	**2,392**

» 27 Non-current assets and disposal groups classified as held for sale

The non-current assets and disposal groups classified as held for sale include individual non-current assets together with assets and liabilities from disposal groups not qualifying as discontinued operations, as described below.

The disposal groups not qualifying as discontinued operations include units in various investment funds with a carrying amount of €47 million. The sale is expected to take place within a year.

The individual non-current assets classified as held for sale comprise real estate. The carrying amount comes to a total of €20 million. The sale of these individual non-current assets classified as held for sale is expected to take place within a year.

At the level of the BSH subgroup, shares in the Hungarian subsidiary Fundamenta-Laskáskassza Lakástrakarékpénztár Zrt., Budapest, (FLK) were sold to MBH Bank Nyrt, Budapest, Hungary, which is part of Magyar Bankholding, on March 27, 2024. FLK constitutes a disposal group not qualifying as a discontinued operation. The gain on disposal amounted to €1 million and was recognized under other net operating income.

The sale of individual non-current assets classified as held for sale gave rise to income of €17 million in the period under review, which was recognized under other net operating income.

» 28 Deposits from banks

	Repayable on demand		With agreed maturity or notice period		Total	
€ million	Jun. 30, 2024	Dec. 31, 2023	Jun. 30, 2024	Dec. 31, 2023	Jun. 30, 2024	Dec. 31, 2023
Domestic banks	**48,617**	48,289	**110,027**	109,078	**158,644**	157,367
Affiliated banks	45,504	44,407	26,020	27,644	71,524	72,052
Other banks	3,113	3,881	84,007	81,434	87,120	85,315
Foreign banks	**10,825**	9,219	**13,804**	7,995	**24,629**	17,214
Total	**59,442**	57,507	**123,830**	117,073	**183,273**	174,580

» 29 Deposits from customers

	Repayable on demand		With agreed maturity or notice period		Total	
€ million	Jun. 30, 2024	Dec. 31, 2023	Jun. 30, 2024	Dec. 31, 2023	Jun. 30, 2024	Dec. 31, 2023
Domestic customers	38,326	38,660	96,834	97,628	135,160	136,288
Foreign customers	21,731	19,529	3,050	3,824	24,781	23,354
Total	**60,057**	58,189	**99,884**	101,452	**159,941**	159,641

» 30 Debt certificates issued including bonds

€ million	Jun. 30, 2024	Dec. 31, 2023
Bonds issued	**89,493**	**88,011**
Mortgage Pfandbriefe	33,079	31,859
Public-sector Pfandbriefe	1,684	1,696
Other bonds	54,730	54,457
Other debt certificates issued	**26,156**	**15,757**
Total	**115,649**	**103,768**

As was also the case as at December 31, 2023, all other debt certificates issued are commercial paper.

» 31 Hedging instruments (negative fair values)

Hedging instruments (negative fair values) amounted to €592 million (December 31, 2023: €624 million) and resulted solely from derivatives used as fair value hedges.

» 32 Financial liabilities held for trading

€ million	Jun. 30, 2024	Dec. 31, 2023
DERIVATIVES (NEGATIVE FAIR VALUES)	**16,525**	**17,131**
Interest-linked contracts	13,720	13,687
Currency-linked contracts	1,235	1,897
Share-/index-linked contracts	1,421	1,362
Other contracts	78	112
Credit derivatives	70	73
SHORT POSITIONS	**2,473**	**701**
BONDS ISSUED	**21,910**	**20,836**
DEPOSITS	**3,938**	**9,007**
of which from affiliated banks	3,724	3,688
of which from other banks	140	4,943
Money market deposits	**3,786**	**8,854**
from banks	3,765	8,571
from customers	21	284
Promissory notes and registered bonds issued	**152**	**153**
to banks	98	60
to customers	53	93
Total	**44,845**	**47,675**

As was also the case as at December 31, 2023, bonds issued mainly comprise share certificates and index-linked certificates.

» 33 Provisions

€ million	Jun. 30, 2024	Dec. 31, 2023
Provisions for employee benefits	**1,348**	**1,508**
Provisions for defined benefit plans	919	1,045
Provisions for other long-term employee benefits	198	213
of which for semi-retirement schemes	76	79
Provisions for termination benefits	209	221
of which for early retirement schemes	24	26
of which for restructuring	148	156
Provisions for short-term employee benefits	22	29
Provisions for share-based payment transactions	**46**	**58**
Other provisions	**1,573**	**1,669**
Provisions for onerous contracts	11	10
Provisions for restructuring	32	31
Provisions for loan commitments	147	138
Provisions for financial guarantee contracts	110	105
Other provisions for loans and advances	46	52
Provisions relating to building society operations	832	913
Residual provisions	397	420
Total	**2,967**	**3,235**

The underlying discount rate used to measure the defined benefit obligations rose from 3.20 percent as at December 31, 2023 to 3.60 percent as at June 30, 2024. The assumptions about salary and annuity trends were unchanged compared with December 31, 2023.

» 34 Insurance contract liabilities

€ million	Jun. 30, 2024	Dec. 31, 2023
Insurance contract liabilities	**108,869**	**105,150**
Liability for remaining coverage	96,711	93,033
Liability for incurred claims	12,158	12,117
Reinsurance contract liabilities	**1**	**1**
Liability for remaining coverage	1	2
Total	**108,871**	**105,151**

» 35 Other liabilities

€ million	Jun. 30, 2024	Dec. 31, 2023
Other liabilities of insurance companies	5,426	5,620
Accruals	1,060	1,518
Other payables	241	250
Lease liabilities	574	576
Residual other liabilities	885	907
Total	**8,187**	**8,872**

Residual other liabilities included initial margins from client clearing of €503 million (December 31, 2023: €489 million).

The table below gives a breakdown of insurance companies' other liabilities.

€ million	Jun. 30, 2024	Dec. 31, 2023
Other provisions	377	394
Payables and residual other liabilities	5,050	5,226
Total	**5,426**	**5,620**

Other provisions included provisions for defined benefit plans of €112 million (December 31, 2023: €125 million). The underlying discount rate used to measure the defined benefit obligations rose from 3.20 percent as at December 31, 2023 to 3.60 percent as at June 30, 2024. The assumptions about salary and annuity trends were unchanged compared with December 31, 2023.

Payables and residual other liabilities included lease liabilities of €69 million (December 31, 2023: €75 million).

» 36 Subordinated capital

€ million	Jun. 30, 2024	Dec. 31, 2023
Subordinated liabilities	4,309	4,257
Share capital repayable on demand	4	5
Total	**4,313**	**4,261**

» 37 Equity

The table below shows a breakdown of the reserve from other comprehensive income:

	Items not reclassified to the income statement		Items reclassified to the income statement		
€ million	Reserve from equity instruments for which the fair value OCI option has been exercised	Reserve from gains and losses on financial liabilities for which the fair value option has been exercised, attributable to changes in own credit risk	Reserve from debt instruments measured at fair value through other compre-hensive income	Currency translation reserve	Reserve for insurance contracts measured at fair value through other compre-hensive income
Equity as at Jan. 1, 2023	690	59	-10,786	80	8,785
Other comprehensive income/loss	179	217	603	-12	-856
Total comprehensive income/loss	**179**	**217**	**603**	**-12**	**-856**
Acquisition/disposal of non-controlling interests	-	-	16	-	-16
Reclassifications within equity	-190	-1	-	-	-
Equity as at Jun. 30, 2023	**679**	**275**	**-10,166**	**68**	**7,913**
Equity as at Jan. 1, 2024	514	267	-7,889	62	6,405
Other comprehensive income/loss	212	-377	-874	4	434
Total comprehensive income/loss	**212**	**-377**	**-874**	**4**	**434**
Changes in scope of consolidation	-	-	-	22	-
Acquisition/disposal of non-controlling interests	-	-	1	-	-
Reclassifications within equity	-100	-2	-	-	-
Equity as at Jun. 30, 2024	**625**	**-112**	**-8,763**	**88**	**6,839**

The changes in loss allowances included in the reserve from other comprehensive income, broken down by individual balance sheet item, were as follows:

	Investments			Investments held by insurance companies			Total
€ million	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	
Balance as at Jan. 1, 2023	7	-	24	34	17	1	83
Additions	3	-	-	4	1	6	15
Utilizations	-	-	-	-	-	-6	-6
Reversals	-4	-	-	-27	-5	-	-37
Other changes	-	-	-	17	-8	-	9
Balance as at Jun. 30, 2023	**6**	**-**	**24**	**27**	**5**	**1**	**63**
Balance as at Jan. 1, 2024	9	2	25	31	35	13	115
Additions	5	1	-	8	10	2	26
Utilizations	-	-	-	-	-	-2	-2
Reversals	-3	-1	-	-7	-10	-18	-39
Other changes	-	-1	-	-1	-	17	15
Balance as at Jun. 30, 2024	**10**	**2**	**25**	**30**	**35**	**12**	**115**

The information on regulatory capital and on capital management pursuant to IAS 1.134-136, which also forms part of these IFRS interim consolidated financial statements, can be found in the interim group management report in chapter VI ‘Risk report’, section 5 ‘Capital adequacy’.

D Financial instruments and fair value disclosures

» 38 Classes, categories, and fair values of financial instruments

The following tables show the breakdown of net carrying amounts and fair values of financial assets and financial liabilities by class (in accordance with IFRS 7) and by category of financial instrument (in accordance with IFRS 9):

€ million	Jun. 30, 2024 Carrying amount	Jun. 30, 2024 Fair value	Dec. 31, 2023 Carrying amount	Dec. 31, 2023 Fair value
FINANCIAL ASSETS MEASURED AT FAIR VALUE	**192,138**	**192,155**	**188,770**	**188,785**
Financial assets measured at fair value through profit or loss	**74,844**	**74,861**	**75,149**	**75,164**
Financial assets mandatorily measured at fair value through profit or loss	***70,556***	***70,573***	***70,134***	***70,149***
Loans and advances to customers	231	231	221	221
Hedging instruments (positive fair values)	955	955	923	923
Financial assets held for trading	32,525	32,542	34,961	34,975
Investments	3,517	3,517	3,385	3,385
Investments held by insurance companies	33,327	33,327	30,644	30,644
Financial assets designated as at fair value through profit or loss	***4,288***	***4,288***	***5,015***	***5,015***
Loans and advances to banks	1,175	1,175	1,202	1,202
Loans and advances to customers	567	567	613	613
Investments	2,545	2,545	3,200	3,200
Financial assets measured at fair value through other comprehensive income	**117,246**	**117,246**	**113,573**	**113,573**
Financial assets mandatorily measured at fair value through other comprehensive income	***111,724***	***111,724***	***108,080***	***108,080***
Loans and advances to banks	-	-	31	31
Loans and advances to customers	2,043	2,043	2,115	2,115
Investments	33,638	33,638	30,169	30,169
Investments held by insurance companies	76,042	76,042	75,765	75,765
Financial assets designated as at fair value through other comprehensive income	***5,522***	***5,522***	***5,493***	***5,493***
Investments	407	407	394	394
Investments held by insurance companies	5,114	5,114	5,099	5,099
Non-current assets and disposal groups classified as held for sale	**48**	**48**	**48**	**48**
FINANCIAL ASSETS MEASURED AT AMORTIZED COST	**455,627**	**442,320**	**440,080**	**428,109**
Cash and cash equivalents	104,227	104,226	101,463	101,462
Loans and advances to banks	135,969	130,819	127,591	122,965
Loans and advances to customers	202,076	191,281	199,175	189,565
Investments	14,030	13,948	10,362	10,288
Investments held by insurance companies	110	118	154	193
Other assets	1,929	1,929	2,043	2,043
Fair value changes of the hedged items in portfolio hedges of interest-rate risk	-2,713		-2,389	
Non-current assets and disposal groups classified as held for sale	-	-	1,680	1,592
FINANCE LEASES	**423**	**411**	**456**	**447**
Loans and advances to customers	423	411	456	447
Non-current assets and disposal groups classified as held for sale	-	-	1	1

€ million	Jun. 30, 2024 Carrying amount	Jun. 30, 2024 Fair value	Dec. 31, 2023 Carrying amount	Dec. 31, 2023 Fair value
FINANCIAL LIABILITIES MEASURED AT FAIR VALUE	**77,918**	**77,811**	**78,663**	**78,591**
Financial liabilities mandatorily measured at fair value through profit or loss	**47,740**	**47,671**	**50,554**	**50,515**
Hedging instruments (negative fair values)	592	592	624	624
Financial liabilities held for trading	44,845	44,776	47,675	47,636
Other liabilities	2,303	2,303	2,256	2,256
Financial liabilities designated as at fair value through profit or loss	**30,177**	**30,140**	**28,109**	**28,076**
Deposits from banks	3,658	3,657	3,804	3,804
Deposits from customers	7,646	7,626	7,420	7,399
Debt certificates issued including bonds	18,874	18,856	16,885	16,872
FINANCIAL LIABILITIES MEASURED AT AMORTIZED COST	**434,357**	**425,766**	**417,111**	**409,333**
Deposits from banks	179,615	175,202	170,776	167,289
Deposits from customers	152,296	150,824	152,222	150,921
Debt certificates issued including bonds	96,775	93,573	86,883	83,583
Other liabilities	2,019	2,020	2,098	2,098
Subordinated capital	4,313	4,146	4,261	3,933
Fair value changes of the hedged items in portfolio hedges of interest-rate risk	-660		-634	
Liabilities included in disposal groups classified as held for sale	-	-	1,505	1,509
LEASES	**643**	**643**	**664**	**664**
Other liabilities	643	643	652	652
Liabilities included in disposal groups classified as held for sale	-	-	12	12
FINANCIAL GUARANTEE CONTRACTS AND LOAN COMMITMENTS	**256**	**510**	**242**	**585**
Financial guarantee contracts	**110**	**110**	**105**	**105**
Provisions	110	110	105	105
Loan commitments	**147**	**400**	**138**	**480**
Provisions	147	400	138	480

There is no active market with quoted prices pursuant to IFRS 13.76 for home savings loans, home savings deposits, or similar assets and liabilities. The specific features of a home savings product also mean that there is currently no suitable method for calculating fair value in accordance with IFRS 13. The home savings contracts cannot be measured individually because the allocation of home savings loans depends on the overall performance of the collective building society operations (allocation assets) and thus, in particular, on the performance of the home savings deposits (link to the collective). Consequently, the financial assets and financial liabilities resulting from collective building society operations are shown only at their carrying amounts in the table above.

Building society simulation models are used to calculate risk-bearing capacity and for regulatory purposes. These models have been updated in line with the increased requirements imposed by the banking supervisor in recent years. Statistical parameters, empirical values, and current market assessments are used in the models. The present value of the expected future cash flows from the collective contracts in force, less cost components and risk margins, is compared with the balance of the carrying amounts from building society operations below. The balance of the carrying amounts from building society operations amounted to an excess of liabilities and stood at minus €56,940 million (December 31, 2023: minus €60,338 million), whereas the collective present value came to minus €48,130 million (December 31, 2023: minus €52,854 million).

The differences between the carrying amount and the fair value of financial assets held for trading, financial liabilities held for trading, deposits from banks, deposits from customers, and debt certificates issued including bonds in the 'financial assets measured at fair value' and 'financial liabilities measured at fair value' classes are due to the deferral of unrecognized day-one profit or loss on financial instruments at the time of initial recognition, which is based on unobservable valuation parameters.

» 39 Differences not recognized at the time of initial recognition

Differences that are not recognized at the time of initial recognition of financial instruments (day-one profit or loss) arise if the fair value of a financial instrument differs from its transaction price at the time of initial recognition and the calculation of the fair value is not substantiated by a price quoted in an active market for an identical asset or identical liability or is not based on a valuation technique that only uses data from observable markets. Such transactions are initially recognized at fair value on the balance sheet, plus the unrecognized day-one profit or loss. This unrecognized difference is amortized to profit or loss over the maturity period or at the time that all parameters factored into the valuation models are observable.

The following table shows the deferred day-one profit or loss that has not yet been amortized to profit or loss, broken down by class pursuant to IFRS 7.

	Measured at fair value	
€ million	Financial assets	Financial liabilities
Balance as at Jan. 1, 2023	14	87
Additions as a result of transactions	9	19
Differences amortized to profit or loss	-2	-42
Balance as at Jun. 30, 2023	**21**	**64**
Balance as at Jan. 1, 2024	15	72
Additions as a result of transactions	5	80
Differences amortized to profit or loss	-1	-48
Reclassifications	-3	3
Balance as at Jun. 30, 2024	**16**	**107**

» 40 Assets and liabilities measured at fair value on the balance sheet

Fair value hierarchy

The fair value measurements are assigned to the levels of the fair value hierarchy as follows:

€ million	Level 1		Level 2		Level 3	
	Jun. 30, 2024	Dec. 31, 2023	**Jun. 30, 2024**	Dec. 31, 2023	**Jun. 30, 2024**	Dec. 31, 2023
Assets	**99,543**	86,356	**59,834**	68,911	**32,776**	33,518
Loans and advances to banks	-	-	1,175	1,232	-	-
Loans and advances to customers	-	-	2,205	2,309	636	641
Hedging instruments (positive fair values)	-	-	955	918	-	5
Financial assets held for trading	9,828	5,870	21,418	27,368	1,295	1,737
Investments	28,779	23,171	9,165	11,536	2,165	2,442
Investments held by insurance companies	60,889	57,267	24,916	25,549	28,680	28,692
Non-current assets and disposal groups classified as held for sale	47	48	-	-	-	-
Liabilities	**2,959**	623	**73,552**	76,664	**1,300**	1,304
Deposits from banks	-	-	3,657	3,804	-	-
Deposits from customers	-	-	7,258	7,109	368	290
Debt certificates issued including bonds	682	-	17,636	16,363	538	510
Hedging instruments (negative fair values)	-	-	592	624	-	-
Financial liabilities held for trading	2,257	617	42,125	46,514	394	505
Other liabilities	20	6	2,283	2,250	-	-

The investments held by insurance companies measured at fair value include assets related to unit-linked contracts. These are offset within insurance contract liabilities by financial liabilities that arise from unit-linked insurance products and are measured using the variable fee approach under IFRS 17, and within other liabilities by liabilities measured at fair value from investment contracts that are allocated to unit-linked life insurance.

Transfers

Assets and liabilities held at the balance sheet date and measured at fair value on a recurring basis were transferred as follows between Levels 1 and 2 of the fair value hierarchy:

€ million	Transfers from Level 1 to Level 2		Transfers from Level 2 to Level 1	
	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023	**Jan. 1– Jun. 30, 2024**	Jan. 1– Jun. 30, 2023
Financial assets measured at fair value	**3,447**	2,038	**14,626**	15,103
Financial assets held for trading	862	46	4,763	6,394
Investments	2,004	1,552	7,323	8,060
Investments held by insurance companies	581	440	2,539	649
Financial liabilities measured at fair value	**15**	2,534	**1,055**	1,665
Debt certificates issued including bonds	-	2,520	682	-
Financial liabilities held for trading	15	13	374	1,665

Transfers from Level 1 to Level 2 were due to quoted prices no longer being obtainable in active markets for identical assets or liabilities. Transfers from Level 2 to Level 1 were due to the availability of quoted prices in active markets that had previously not existed.

In the DZ BANK Group, transfers between Levels 1 and 2 take place when there is a change in the inputs that is relevant to categorization in the fair value hierarchy.

Fair value measurements within Levels 2 and 3

Fair value measurements within Level 2 of the fair value hierarchy either use prices available in active markets for similar, but not identical, financial instruments or use valuation techniques largely based on observable market data. If valuation techniques are used that include a material valuation parameter that is not observable in the market, the relevant fair value measurements are categorized within Level 3 of the fair value hierarchy.

Generally, the discounted cash flow (DCF) method is used in the model-based measurement of the fair value of financial instruments without optionalities. Modeling of the yield curves is based on a multi-curve approach with collateral discounting. Simple products on which options exist are measured using customary standard models in which the inputs are quoted in active markets. For structured products on which options exist, a wide range of standard valuation techniques are used. Valuation models are calibrated to available market prices and validated regularly. The fair values of structured products can be measured by breaking these products into their constituent parts, which are then measured using the valuation methods described below.

The basis for measurement is the selection of an adequate yield curve for each specific instrument. The measurement is carried out by selecting appropriate tenor-specific forward curves for projecting variable cash flows. The nature and collateralization of the transactions determines how they are discounted using yield curves that can be adjusted on the basis of relevant spreads.

Prices in active markets are used (provided these prices are available) for the fair value measurement of loans and advances as well as unstructured bonds. Otherwise, the DCF method is mainly used. Discounting is based on yield curves that are adjusted for liquidity-related and credit rating-related costs using spreads. Product-dependent funding spreads are added to the yield curve for liabilities attributable to registered creditors, debt certificates issued including bonds, and subordinated capital. Bonds and other fixed-income securities are adjusted using issuer-specific spreads or spreads derived from the issuer's internal and external credit rating, sector, and risk category. Customer-appropriate spreads and collateralization rates are taken into account for the measurement of loans when the DCF method is used. If material unobservable inputs are used for measurement and there are no indications that the transaction price is not identical to the fair value at the time of first-time recognition on the balance sheet, the valuation method is calibrated in such a way that the model price at the time of acquisition corresponds to the transaction price. In exceptional cases, the nominal amount of the debt instrument in question provides the best evidence of fair value.

The fair value measurement of shares and other variable-yield securities and of other shareholdings is determined by applying income capitalization approaches and observing transaction prices. The best indicator of fair value is obtained from the transaction prices for recent transactions involving the relevant financial instruments, provided there have been any such transactions. Otherwise, the fair value is measured using income capitalization approaches in which future income and dividends – calculated on the basis of forecasts and estimates – are discounted, taking risk parameters into account.

The fair value measurement of investment fund units is determined using the pro rata net asset value. This is adjusted for any outstanding performance-related remuneration entitlements of fund managers; risk adjustments are also taken into account. Some investments in real estate companies are also measured at net asset value. In this case, the liabilities are subtracted from the fair values of the real estate tied up in the company and the result is multiplied by the percentage of shareholding. The prices of units in real estate funds that are not managed by the DZ BANK Group are provided by the asset management company that manages these funds. These units are measured regularly at net asset value. Fair value measurement is also based on valuations, current values, and prices in recent transactions.

The fair value measurement of standardized derivatives traded in liquid markets is based on observable market prices and/or industry-standard models using observable inputs. To discount the cash flows of derivatives, a distinction is made between non-collateralized and collateralized transactions when using yield curves in order to take into account the specific funding costs. Moreover, calculation of the model prices for products on which options exist mostly requires the input of additional market data (e.g. volatilities, correlations, repo rates). As far as possible, this data is derived implicitly from quoted market prices that are available. If observable quoted market prices are not available, or only available to a limited extent, the DZ BANK Group uses customary interpolation and extrapolation mechanisms, historical time series analyses, and fundamentals analyses of economic variables to generate the required inputs. It also uses expert assessments on a small scale.

The fair value measurement of OTC financial derivatives applies the option in IFRS 13.48, which enables the total net amount to be measured. In the first step, credit risk is not taken into account. Next, counterparty-specific credit risk arising from derivatives is recognized after the total net amount has been determined. Credit valuation adjustments (CVAs) are recognized to take into account counterparty credit risk and debt valuation adjustments (DVAs) are recognized to take into account the group’s own credit risk. Their measurement also takes account of collateral and uses market-implied parameters with matching maturities or internal parameters with matching maturities for the probability of default and loss given default.

The measurement of financial instruments also involves carrying out measurement adjustments to a suitable degree. These include, among other things, model reserves that enable uncertainties regarding model selection, model parameters, and model configuration to be taken into account. The DZ BANK Group measures financial instruments at the price at which these financial instruments can be realized in the market. If this differs from the measurement of the individual instruments (e.g. measurement at middle rates), the bid/ask adjustments (close-out reserves) are determined on a net basis applying the option in IFRS 13.48. Measurement takes account of the group’s funding structure.

If the value of the financial instruments is based on unobservable inputs and they are thus assigned to Level 3 of the fair value hierarchy, the exact value of these inputs can be determined as at the balance sheet date from a range of appropriate possible alternatives. Determining the value for the inputs from a range has an impact on the fair value recognized. The following disclosures explain the material unobservable input categories (known as risk categories) for Level 3 financial instruments. These categories are factored into the significance analysis. Their areas of application are also shown below.

Risk categories

Asset-backed-securities spreads (ABS spreads)

ABS spreads encompass ABS spread curves derived from sector, rating, or expert assessments. These curves are used, for example, to measure ABSs and other structured bonds. The presentation of the sensitivities to ABS spreads relates to a shift of plus 1 basis point.

Adjustment spreads

Adjustment spreads help to calibrate model prices to transaction prices. They are particularly factored into the measurement of bonds and registered securities. Financial instruments for which subordinated spreads are available are all assigned to Level 3 as these generally have their own specific unobservable spreads with a significant effect on fair value.

Probability of default

Probability of default describes a banking regulation-related risk parameter used to measure credit risk. The probability of default of a borrower, issuer, or counterparty is the probability that the borrower, issuer, or counterparty will not be able to meet its payment obligations or other contractual obligations in the future. The presentation of the sensitivities to probability of default relates to a shift of plus 1 basis point.

Bond spreads

Bond spreads contain both credit rating-related and issuer-related spread curves for corporates and governments. Also in this category are benchmark bond spread curves that, for example, are factored into the measurement of issues, bonds, promissory notes, bond futures, and bond options. The presentation of the sensitivities to bond spreads relates to a shift of plus 1 basis point.

Credit default swap spreads (CDS spreads)

This category encompasses CDS spreads for corporates and governments. They are used to measure CDSs and are factored into the measurement of structured issues. The presentation of the sensitivities to CDS spreads relates to a shift of plus 1 basis point.

Discount rate for investments in companies

Both observable and unobservable inputs are factored into the discount rate for investments in companies. The risk-free basic interest rate is an observable input. The material unobservable inputs are the premium for market risk, the company-specific beta factor and, if applicable, a growth markdown. A sensitivity analysis is carried out at the level of the discount rate as a whole rather than at the level of the individual unobservable inputs factored into the discount rate. The presentation of the sensitivities to the discount rate for investments in companies relates to a shift of plus 1 basis point.

Dividend estimate

This category covers estimated future dividend yields as well as repo yields and convenience yields. The presentation of the sensitivities to dividends relates to a shift of plus 1 percent.

Duration

Duration is the unobservable, weighted average lifetime of mortgage-backed securities. The presentation of the sensitivities to duration relates to a shift of plus 1 year.

Equity prices
This category includes not only equity prices but also prices for equity indices. Equity prices are used to measure equities and derivative products based on equities, but they are also used to measure issues and profit-sharing rights. The presentation of the sensitivities to equity prices relates to a shift of plus 1 percent in relation to fair value.

Fair value adjustments
As a component of fair value, fair value adjustments must be taken into account in the significance analysis in their full absolute amount, provided they are unobservable. The absolute amount of the fair value adjustment must be disclosed as the sensitivity.

Fund prices
This category contains prices both for commodity funds and for equity funds. Fund prices are factored into the measurement of funds and issues. The presentation of the sensitivities to fund prices relates to a shift of plus 1 percent in relation to fair value.

Funding and treasury spreads
Funding and treasury spreads are internal measurement spreads for determining the fair values of own issues. The presentation of the sensitivities to funding and treasury spreads relates to a shift of plus 1 basis point.

Impairment
Impaired financial instruments are generally assigned to Level 3 of the fair value hierarchy. The absolute amount must be disclosed as the sensitivity.

Mean reversion
This category comprises the unobservable parameter ‘mean reversion’ in the Hull-White model, which is used to model short rates. The presentation of the sensitivities to mean reversion relates to a shift of plus 1 basis point.

Illiquid market prices
In some circumstances, depending on the liquidity of the bond spread curve, liquid market price information may not be available as at the valuation date for marked-to-market financial instruments such as bonds. Where this is the case, the financial instruments are assigned to Level 3 of the fair value hierarchy. The presentation of the sensitivities to illiquid market prices relates to a shift of plus 1 percent in relation to fair value (fair value changes by 1 percent of the current market price).

Volatilities
These include various volatilities for commodities, equities, and currencies as well as cap/floor volatilities and swaption volatilities. For the latter, particularly derivative products such as swaps and options, fly volatilities and risk reversal volatilities are also factored into the calculations. The presentation of the sensitivities to volatilities relates to a shift of plus 1 percentage point for volatilities with log-normal distribution and a shift of plus 1 basis point for volatilities with normal distribution.

Yield curves

In addition to standard yield curves, this category covers cross-currency spread curves and tenor basis spread curves as well as fixing, fund, and swap rates. Yield curves are factored into the measurement of most financial instruments. The presentation of the sensitivities to yield curves relates to a shift of plus 1 basis point.

Aggregate sensitivity

For each product type whose fair value is based on unobservable inputs and are therefore assigned to Level 3, the inputs used in the measurement of the assets and liabilities are used to determine and present an aggregate sensitivity. The aggregate sensitivity, presented in euros, provides information about the sensitivity of assets and liabilities in each class to a change in the unobservable inputs used in the measurement of this class, such inputs belonging to the risk category identified for this class. The aggregate sensitivity relates to a standardized change in the inputs in the risk category, for example relating to a change of plus 1 basis point. For example, an aggregate sensitivity of €1 million for the 'yield curves' risk category means that a change of plus 10 basis points would result in an increase in fair value of €10 million for the line item.

The following tables show the valuation techniques, risk categories, sensitivity reference values, and the aggregate sensitivities used for the fair value measurements at Level 3 of the fair value hierarchy.

Measurements of fair value at Level 3 as at June 30, 2024

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Risk category	Sensitivity reference value	Aggregate sensitivity (€ million)
Loans and advances to customers	Other bank loans	21	Mark-to-model (DCF)	Probability of default	Shift of +1 basis point	-
	Other bank loans	14	Present value for which loss allowances have been recognized	Impairment	Absolute amount (impairment)	-
	Registered securities	405	Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	3
			Mark-to-model (DCF)	Probability of default	Shift of +1 basis point	-
			Mark-to-model (DCF)	Yield curves	Shift of +1 basis point	-
	Other loans and advances	196	Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	2
Financial assets held for trading	Shares	1	Mark-to-market	Fair value adjustments	Absolute amount (fair value adjustment)	-
	Bonds	4	Black model (simple option pricing model)	Fair value adjustments	Absolute amount (fair value adjustment)	-
			Mark-to-market	Fair value adjustments	Absolute amount (fair value adjustment)	-
	Bonds	189	Mark-to-market	Illiquid market prices	Shift of +1% in relation to fair value	2
	Bonds	37	Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	-
			Black model (simple option pricing model)	Fair value adjustments	Absolute amount (fair value adjustment)	5
			Black model (simple option pricing model)	Volatilities (log-normal)	Shift of +1 percentage point	1
	Derivatives	61	Black model (simple option pricing model)	Volatilities (normal)	Shift of +1 basis point	-5
			Analytical yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	2
	Derivatives	17	Analytical yield curve model	Volatilities (normal)	Shift of +1 basis point	26
			Multi-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	48
	Derivatives	564	Multi-factor yield curve model	Volatilities (normal)	Shift of +1 basis point	10
	Derivatives	6	Local volatility model	Volatilities (log-normal)	Shift of +1 percentage point	-
			One-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	8
			One-factor yield curve model	Volatilities (normal)	Shift of +1 basis point	2
	Derivatives	89	One-factor yield curve model	Mean reversion	Shift of +1 basis point	-
	Derivatives	141	Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	16
	Promissory notes and registered bonds	187	Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	-

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Risk category	Sensitivity reference value	Aggregate sensitivity (€ million)
Investments	Shares and other shareholdings	258	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
			Mark-to-model (DCF)	Dividend estimate	Shift of +1 percentage point	2
	Shares and other shareholdings	120	Mark-to-model (DCF)	Yield curves	Shift of +1 basis point	-
	Shares and other shareholdings	1	Simplified income capitalization approach			-
			Mark-to-market	Illiquid market prices	Shift of +1% in relation to fair value	12
	Bonds	1,187	Mark-to-market	Fair value adjustments	Absolute amount (fair value adjustment)	-
			Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	-
			Mark-to-model (DCF)	Duration	Shift of +1 year	-6
	Bonds	295	Mark-to-model (DCF)	Adjustment spreads	Shift of +1 basis point	-
	Bonds	17	Present value for which loss allowances have been recognized	Impairment	Absolute amount (impairment)	-
	Investments in associates	16	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
	Investments in associates	1	Mark-to-model (DCF)	Yield curves	Shift of +1 basis point	-
	Investments in associates	4	Simplified income capitalization approach			-
	Investments in subsidiaries	75	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
	Investments in subsidiaries	46	Simplified income capitalization approach			-
	Investments in subsidiaries	73	Mark-to-model (DCF)	Yield curves	Shift of +1 basis point	-
	Investments in subsidiaries	10	Net asset value			-
	Investment fund units	53	Mark-to-model (other)	Fund prices	Shift of +1% in relation to fair value	1
	Investment fund units	9	Net asset value			-

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Risk category	Sensitivity reference value	Aggregate sensitivity (€ million)
Investments held by insurance companies	Shares and other variable-yield securities	3	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
	Shares and other variable-yield securities	25	Valuation reports			-
	Shares and other variable-yield securities	12	Simplified income capitalization approach			-
	Shares and other variable-yield securities	5,729	Net asset value			-
	Investments in associates	10	Simplified income capitalization approach			-
	Investments in associates	13	Net asset value			-
	Investments in joint ventures	4	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
	Investments in joint ventures	58	Net asset value			-
	Investments in subsidiaries	276	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
	Investments in subsidiaries	1	Simplified income capitalization approach			-
	Investments in subsidiaries	220	Net asset value			-
	Fixed-income securities	518	Multi-factor yield curve model	Bond spreads	Shift of +1 basis point	-1
	Fixed-income securities	2,823	Mark-to-model (DCF)	Bond spreads	Shift of +1 basis point	-2
			Mark-to-model (DCF)	ABS spreads	Shift of +1 basis point	-
	Fixed-income securities	1	Mark-to-market	Illiquid market prices	Shift of +1% in relation to fair value	-
	Mortgage loans	11,955	Mark-to-model (DCF)	Bond spreads	Shift of +1 basis point	-10
	Registered bonds	2,400	Mark-to-model (DCF)	Bond spreads	Shift of +1 basis point	-3
			Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	46
	Registered bonds	1,248	Multi-factor yield curve model	Bond spreads	Shift of +1 basis point	-2
	Promissory notes and loans	2,858	Mark-to-model (DCF)	Bond spreads	Shift of +1 basis point	-2
	Promissory notes and loans	303	Multi-factor yield curve model	Bond spreads	Shift of +1 basis point	-
	Other loans and receivables	105	Amortized cost			-
	Other loans and receivables	117	Mark-to-model (DCF)	Probability of default	Shift of +1 basis point	-
	Assets managed for third parties	2	Net asset value			-

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Risk category	Sensitivity reference value	Aggregate sensitivity (€ million)
Deposits from customers			Multi-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	7
	Other deposits	211	Multi-factor yield curve model	Volatilities (normal)	Shift of +1 basis point	4
			Analytical yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	1
	Other deposits	157	Analytical yield curve model	Volatilities (normal)	Shift of +1 basis point	-12
Debt certificates issued including bonds	Other bonds	360	Mark-to-market	Illiquid market prices	Shift of +1 percentage point	-4
	Other bonds	16	Analytical yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	-
			Multi-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	5
			Multi-factor yield curve model	Funding & treasury spreads	Shift of +1 basis point	1
	Other bonds	163	Multi-factor yield curve model	Volatilities (normal)	Shift of +1 basis point	-
Financial liabilities held for trading	Bonds issued, share certificates and index-linked certificates, and other debt certificates issued	2	Black model (simple option pricing model)	Fair value adjustments	Absolute amount (fair value adjustment)	-
	Bonds issued, share certificates and index-linked certificates, and other debt certificates issued	95	Local volatility model	Fair value adjustments	Absolute amount (fair value adjustment)	3
			Analytical yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	2
	Derivatives	9	Analytical yield curve model	Volatilities (normal)	Shift of +1 basis point	9
			Black model (simple option pricing model)	Fair value adjustments	Absolute amount (fair value adjustment)	8
			Black model (simple option pricing model)	Volatilities (log-normal)	Shift of +1 percentage point	-1
	Derivatives	93	Black model (simple option pricing model)	Volatilities (normal)	Shift of +1 basis point	-6
			Local volatility model	Fair value adjustments	Absolute amount (fair value adjustment)	3
	Derivatives	37	Local volatility model	Volatilities (log-normal)	Shift of +1 percentage point	-2
			Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	27
			Mark-to-model (DCF)	Volatilities (log-normal)	Shift of +1 percentage point	-7
	Derivatives	60	Mark-to-model (DCF)	Yield curves	Shift of +1 basis point	-
	Derivatives	1	Mark-to-model (other)	Expert appraisal	Shift of +1% in relation to fair value	-
	Derivatives	64	Multi-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	6
			One-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	2
			One-factor yield curve model	Volatilities (normal)	Shift of +1 basis point	-1
	Derivatives	33	One-factor yield curve model	Mean reversion	Shift of +1 basis point	-

Measurements of fair value at Level 3 as at December 31, 2023

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Risk category	Sensitivity reference value	Aggregate sensitivity (€ million)
Loans and advances to customers	Other bank loans	18	Mark-to-model (DCF)	Probability of default	Shift of +1 basis point	-
	Other bank loans	14	Present value for which loss allowances have been recognized	Impairment	Absolute amount (impairment)	-
	Registered securities	14	Black model (simple option pricing model)	Bond spreads	Shift of +1 basis point	-
	Registered securities	405	Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	4
	Other loans and advances	1	Mark-to-model (DCF)	Probability of default	Shift of +1 basis point	-
			Mark-to-model (DCF)	Yield curves	Shift of +1 basis point	-
	Other loans and advances	189	Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	3
Derivatives used for hedging (positive fair values)	Derivatives	5	Mark-to-model (DCF)	Yield curves	Shift of +1 basis point	-
Financial assets held for trading	Shares	1	Mark-to-market	Equity prices	Shift of +1% in relation to fair value	-
	Bonds	35	Black model (simple option pricing model)	Bond spreads	Shift of +1 basis point	-
	Bonds	182	Mark-to-market	Illiquid market prices	Shift of +1 percentage point	1
	Bonds	74	Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	-
			Black model (simple option pricing model)	Fair value adjustments	Absolute amount (fair value adjustment)	4
	Derivatives	83	Black model (simple option pricing model)	Volatilities (normal)	Shift of +1 basis point	-6
			Analytical yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	2
	Derivatives	22	Analytical yield curve model	Volatilities (normal)	Shift of +1 basis point	14
			Multi-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	53
	Derivatives	508	Multi-factor yield curve model	Volatilities (normal)	Shift of +1 basis point	10
			Local volatility model	Dividend estimate	Shift of +1 basis point	-
	Derivatives	13	Local volatility model	Volatilities (log-normal)	Shift of +1 percentage point	-2
			One-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	9
	Derivatives	58	One-factor yield curve model	Volatilities (normal)	Shift of +1 basis point	2
			Mark-to-model (DCF)	ABS spreads	Shift of +1 basis point	-
			Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	27
	Derivatives	478	Mark-to-model (DCF)	Volatilities (log-normal)	Shift of +1 percentage point	4
	Promissory notes and registered bonds	1	Multi-factor yield curve model	Bond spreads	Shift of +1 basis point	-
	Promissory notes and registered bonds	282	Mark-to-model (DCF)	Bond spreads	Shift of +1 percentage point	-

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Risk category	Sensitivity reference value	Aggregate sensitivity (€ million)
	Shares and other shareholdings	118	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
	Shares and other shareholdings	126	Mark-to-model (DCF)	Yield curves	Shift of +1 basis point	-
	Shares and other shareholdings	3	Simplified income capitalization approach			-
	Shares and other shareholdings	141	Mark-to-model (DCF)	Dividend estimate	Shift of +1 percentage point	1
	Bonds	1	Black model (simple option pricing model)	ABS spreads	Shift of +1 basis point	-
			Mark-to-market	Illiquid market prices	Shift of +1% in relation to fair value	5
	Bonds	553	Black model (simple option pricing model)	Fair value adjustments	Absolute amount (fair value adjustment)	1
			Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	-
	Bonds	303	Mark-to-model (DCF)	Illiquid market prices	Shift of +1% in relation to fair value	4
Investments	Bonds	6	Present value for which loss allowances have been recognized	Impairment	Absolute amount (impairment)	-
	Bonds	699	Mark-to-market	Illiquid market prices	Shift of +1% in relation to fair value	7
	Bonds	255	Mark-to-model (DCF)	Duration	Shift of +1 year	-7
	Bonds	12	Present value for which loss allowances have been recognized	Impairment	Absolute amount (impairment)	-
	Investments in associates	6	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
	Investments in subsidiaries	67	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
	Investments in subsidiaries	43	Simplified income capitalization approach			-
	Investments in subsidiaries	59	Mark-to-model (DCF)	Yield curves	Shift of +1 basis point	-
	Investments in subsidiaries	10	Net asset value			-
	Investment fund units	31	Mark-to-model (other)	Fund prices	Shift of +1% in relation to fair value	-
	Investment fund units	9	Net asset value			-

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Risk category	Sensitivity reference value	Aggregate sensitivity (€ million)
Investments held by insurance companies	Shares and other variable-yield securities	3	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
	Shares and other variable-yield securities	24	Valuation reports			-
	Shares and other variable-yield securities	11	Simplified income capitalization approach			-
	Shares and other variable-yield securities	5,194	Net asset value			-
	Investments in joint ventures	4	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
	Investments in joint ventures	58	Net asset value			-
	Investments in subsidiaries	276	Income capitalization approach	Discount rate for investments in companies	Shift of +1 basis point	-
	Investments in subsidiaries	1	Simplified income capitalization approach			-
	Investments in subsidiaries	418	Net asset value			-
	Fixed-income securities	1,962	Mark-to-model (DCF)	Bond spreads	Shift of +1 basis point	-2
	Fixed-income securities	485	Multi-factor yield curve model	Bond spreads	Shift of +1 basis point	-1
	Fixed-income securities	1,194	Mark-to-model (DCF)	ABS spreads	Shift of +1 basis point	-
	Fixed-income securities	3	Mark-to-market	Illiquid market prices	Shift of +1% in relation to fair value	-
	Mortgage loans	12,004	Mark-to-model (DCF)	Bond spreads	Shift of +1 basis point	-11
	Registered bonds	2,058	Mark-to-model (DCF)	Bond spreads	Shift of +1 basis point	-3
	Registered bonds	1,353	Multi-factor yield curve model	Bond spreads	Shift of +1 basis point	-3
	Promissory notes and loans	3,125	Mark-to-model (DCF)	Bond spreads	Shift of +1 basis point	-3
	Promissory notes and loans	310	Multi-factor yield curve model	Bond spreads	Shift of +1 basis point	-
	Other loans and receivables	105	Amortized cost			-
	Other loans and receivables	102	Mark-to-model (DCF)	Probability of default	Shift of +1 basis point	-
	Assets managed for third parties	1	Net asset value			-

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Risk category	Sensitivity reference value	Aggregate sensitivity (€ million)
Deposits from customers	Other deposits	180	Multi-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	5
			Multi-factor yield curve model	Volatilities (normal)	Shift of +1 basis point	3
			Analytical yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	1
	Other deposits	110	Analytical yield curve model	Volatilities (normal)	Shift of +1 basis point	-6
Debt certificates issued including bonds	Other bonds	310	Mark-to-model (DCF)	Illiquid market prices	Shift of +1 percentage point	-4
	Other bonds	26	Analytical yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	-
	Other bonds	173	Multi-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	4
Financial liabilities held for trading	Bonds issued, share certificates and index-linked certificates, and other debt certificates issued	116	Local volatility model	Dividend estimate	Shift of +1 basis point	-
			Local volatility model	Fair value adjustments	Absolute amount (fair value adjustment)	3
			Local volatility model	Volatilities (log-normal)	Shift of +1 percentage point	1
	Derivatives	5	Analytical yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	2
	Derivatives	71	Black model (simple option pricing model)	Fair value adjustments	Absolute amount (fair value adjustment)	6
			Black model (simple option pricing model)	Volatilities (normal)	Shift of +1 basis point	-5
	Derivatives	28	One-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	2
			One-factor yield curve model	Volatilities (normal)	Shift of +1 basis point	-1
	Derivatives	131	Local volatility model	Dividend estimate	Shift of +1 basis point	-
			Local volatility model	Fair value adjustments	Absolute amount (fair value adjustment)	6
			Local volatility model	Volatilities (log-normal)	Shift of +1 percentage point	-16
	Derivatives	94	Mark-to-model (DCF)	CDS spreads	Shift of +1 basis point	-
			Mark-to-model (DCF)	Fair value adjustments	Absolute amount (fair value adjustment)	14
	Derivatives	58	Multi-factor yield curve model	Fair value adjustments	Absolute amount (fair value adjustment)	5
	Derivatives	1	One-factor yield curve model	Mean reversion	Shift of +1 basis point	-

Fair value measurements within Level 3 of the fair value hierarchy

The table below shows the changes in the fair value measurements of assets within Level 3 of the fair value hierarchy:

€ million	Loans and advances to customers	Derivatives used for hedging (positive fair values)	Financial assets held for trading	Investments	Investments held by insurance companies
Balance as at Jan. 1, 2023	596	-	623	1,985	20,366
Additions (purchases)	4	-	828	240	1,714
Transfers	44	-	1,041	1,376	28
from Level 3 to Levels 1 and 2	-2	-	-173	-725	-2
from Levels 1 and 2 to Level 3	46	-	1,214	2,101	30
Disposals (sales)	-14	-	-964	-676	-777
Changes resulting from measurement at fair value	-1	-	21	-36	-1
through profit or loss	-2	-	27	20	-93
through other comprehensive income	1	-	-6	-56	92
Other changes	3	7	-9	2	-17
Balance as at Jun. 30, 2023	**632**	**7**	**1,538**	**2,891**	**21,314**
Balance as at Jan. 1, 2024	641	5	1,737	2,442	28,692
Additions (purchases)	-	-	1,055	371	1,704
Transfers	-	-	-326	-354	-555
from Level 3 to Levels 1 and 2	-	-	-672	-874	-688
from Levels 1 and 2 to Level 3	-	-	346	520	133
Disposals (sales)	-11	-	-1,170	-321	-1,018
Changes resulting from measurement at fair value	-1	-	-5	10	-182
through profit or loss	-4	-	2	6	177
through other comprehensive income	3	-	-7	4	-359
Other changes	7	-5	5	17	39
Balance as at Jun. 30, 2024	**636**	**-**	**1,295**	**2,165**	**28,680**

The table below shows the changes in the fair value measurements of liabilities within Level 3 of the fair value hierarchy:

€ million	Deposits from customers	Debt certificates issued including bonds	Derivatives used for hedging (negative fair values)	Financial liabilities held for trading	Subordinated capital
Balance as at Jan. 1, 2023	-	404	-	98	69
Additions (issues)	-	93	-	403	-
Transfers	128	3	-	224	-
from Level 3 to Level 2	-	-	-	-1,874	-
from Level 2 to Level 3	128	3	-	2,099	-
Disposals (settlements)	-	-62	-	-193	-68
Changes resulting from measurement at fair value	-	-1	-	46	-
through profit or loss	2	-1	-	69	1
through other comprehensive income	-2	-	-	-23	-1
Other changes	-	1	3	-11	-1
Balance as at Jun. 30, 2023	**127**	**438**	**3**	**568**	**-**
Balance as at Jan. 1, 2024	290	510	-	505	-
Additions (issues)	-	68	-	996	-
Transfers	63	-	-	-180	-
from Level 3 to Level 2	-	-	-	-464	-
from Level 2 to Level 3	63	-	-	284	-
Disposals (settlements)	-	-52	-	-853	-
Changes resulting from measurement at fair value	16	12	-	-74	-
through profit or loss	-8	-5	-	-53	-
through other comprehensive income	23	17	-	-21	-
Other changes	-1	-	-	-	-
Balance as at Jun. 30, 2024	**368**	**538**	**-**	**394**	**-**

As part of the processes for fair value measurement, the DZ BANK Group reviews whether the valuation methods used for the measurement are typical. This review takes place at every balance sheet date, i.e. at least every 6 months. For the valuation parameters used in the valuation methods, a review is carried out as part of a significance analysis to examine whether unobservable inputs have a significant influence on the fair value.

For each input used in the calculation of fair value, a liquidity score is determined on an ongoing basis that provides information on whether the underlying market is active and the input is observable. Various parameters are used to determine the liquidity score, irrespective of the market data group. In respect of equity prices, for example, a check is carried out of whether the equity was traded in a specified period and whether the trading volume has exceeded a certain threshold. For bonds, the bid-ask spread and the number of price contributors are taken into account. The rules on determining the liquidity score are set centrally by DZ BANK AG and apply to all group entities. On the basis of the liquidity scores determined, the fair value measurements are assigned to the levels of the fair value hierarchy, provided that the group entities use the centralized market database. In the DZ BANK Group, transfers between the levels generally take place as soon as there is a change in the inputs that is relevant to categorization in the fair value hierarchy.

In each step of these processes, both the distinctive features of the particular product type and the distinctive features of the business models of the group entities are taken into consideration.

Transfers of fair values from Levels 1 and 2 to Level 3 of the fair value hierarchy are largely attributable to a revised estimate of the market observability of the valuation parameters used in the valuation methods. Transfers from Level 3 to Levels 1 or 2 are essentially due to the availability of a price listed in an active market and to the inclusion in the valuation method of material valuation parameters observable in the market.

The amount of gains or losses recognized in profit or loss resulting from the recurring fair value measurements within Level 3 of assets and liabilities held at the balance sheet date constituted a net gain of €311 million during the reporting period (first half of 2023: net loss of €142 million). The gains or losses are predominantly included in the line items net interest income, gains and losses on trading activities, other gains and losses on valuation of financial instruments, and gains and losses on investments held by insurance companies and other insurance company gains and losses.

Exercise of option pursuant to IFRS 13.48

The option offered by IFRS 13.48 of measuring a net risk position for financial assets and financial liabilities is used for portfolios whose components are recognized under the balance sheet items loans and advances to banks, loans and advances to customers, financial assets held for trading, investments, and financial liabilities held for trading. If allocation of the portfolio-based valuation adjustments to the assets and liabilities is required, it is generally carried out in proportion to the nominal amounts of the financial instruments in question.

Sensitivity analysis

In the DZ BANK Group, financial instruments are generally assigned to Level 2 and Level 3 of the fair value hierarchy using a sensitivity-based significance analysis of unobservable inputs. Taking a prudent valuation approach pursuant to article 105 of the Capital Requirements Regulation (CRR), an uncertainty spread is formed for the unobservable inputs that, as a rule, equates to the 90 percent quantile and the 10 percent quantile for the distribution of the input; the change in fair value at the ends of the spread is also examined.

The following table shows the changes in the fair values of financial instruments assigned to Level 3 of the fair value hierarchy that would occur if all inputs in each risk category were factored into the measurement with the ends of each uncertainty spread. Changes in fair value at the lower and upper end of the uncertainty spread are shown separately. In practice, however, it is unlikely that all unobservable inputs would be at the extreme end of their uncertainty spread at the same time.

Changes in fair values, using alternative assumptions for unobservable inputs

	Jun. 30, 2024		Dec. 31, 2023	
€ million	Alternative assumptions at the lower end of the uncertainty spread	Alternative assumptions at the upper end of the uncertainty spread	Alternative assumptions at the lower end of the uncertainty spread	Alternative assumptions at the upper end of the uncertainty spread
Loans and advances to customers				
Other loans and advances	3	-3	2	-2
Financial assets held for trading				
Derivatives	-1	1	-1	1
Investments				
Shares and other shareholdings	4	1	6	-2
Bonds	4	-4	-8	7
Investments in subsidiaries	5	-4	1	-1
Investment fund units	-5	3	-3	1
Investments held by insurance companies				
Investments in subsidiaries	19	-16	19	-16
Fixed-income securities	33	-34	33	-31
Mortgage loans	2	-2	2	-2
Registered bonds	145	-145	163	-163
Promissory notes and loans	55	-75	65	-36
Other loans	2	-3	2	-2
Debt certificates issued including bonds				
Other bonds	-1	1	-1	1
Financial liabilities held for trading				
Bonds issued, share certificates and index-linked certificates, and other debt certificates issued	-	-	-1	1
Derivatives	1	-1	4	-4

» 41 Reclassification

On January 1, 2021, financial assets had been reclassified prospectively due to a change to the business model that was attributable to the R+V-wide strategic program known as ‘Wachstum durch Wandel’ (growth through change).

Financial assets of €15,606 million categorized as ‘financial assets measured at amortized cost’ had been reclassified as ‘financial assets measured at fair value through other comprehensive income’ in 2021.

Financial assets of €3,139 million categorized as ‘financial assets measured at fair value through profit or loss’ had been reclassified as ‘financial assets measured at fair value through other comprehensive income’ in 2021. At the time of reclassification, the reclassified assets had an average effective interest rate of 2.25 percent. During the reporting period, these assets generated interest income of €24 million (first half of 2023: €31 million).

» 42 Hedge accounting

Gains and losses arising on hedging instruments and hedged items that need to be recognized in profit or loss are reported in the gains and losses from hedge accounting under other gains and losses on valuation of financial instruments. The breakdown of gains and losses from hedge accounting, by type of hedge, is as follows:

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Gains and losses on fair value hedges	**-**	-
Gains and losses on hedging instruments	54	-24
Gains and losses on hedged items	-54	24
Gains and losses on portfolio fair value hedges	**5**	-27
Gains and losses on hedging instruments	995	24
Gains and losses on hedged items	-989	-51
Total	**6**	-27

» 43 Nature and extent of risks arising from financial instruments

Disclosures pursuant to IFRS 7.35F(a)-36(b) can be found in this note in the notes to the interim consolidated financial statements. With the exception of the qualitative and quantitative disclosures pursuant to IFRS 7.35F(a)-36(b), further disclosures on the nature and extent of risks arising from financial instruments (IFRS 7.31-42) are included in the interim group management report in chapter VI 'Risk report', section 4 'Liquidity adequacy' and for the Bank sector in sections 6 'Credit risk' and 8 'Market risk'.

The disclosures published in the risk report form part of the content of these notes to the consolidated financial statements.

Credit risk management practices

The rules for recognizing loss allowances are based on the calculation of expected losses in the lending business, on investments, on investments held by insurance companies, and on other assets. The impairment rules are applied only to those financial assets that are not measured at fair value through profit or loss. These are:

– financial assets measured at amortized cost; and
– financial assets mandatorily measured at fair value through other comprehensive income.

The impairment rules are also applied to:

– financial guarantee contracts and loan commitments that fall within the scope of IFRS 9 and are not recognized at fair value through profit or loss;
– lease receivables; and
– trade receivables and contract assets pursuant to IFRS 15.

In accordance with IFRS 9, the three-stage approach is used, additionally taking POCI assets into account, to determine the expected losses:

- Stage 1: For financial assets whose credit risk has not increased significantly since initial recognition that were not credit-impaired upon initial recognition, the 12-month credit loss is recognized. Interest is recognized on the basis of the gross carrying amount.
- Stage 2: For financial assets whose credit risk has increased significantly since initial recognition but are not considered credit-impaired, the loss allowances are determined in the amount of the assets' lifetime expected credit losses. Interest is recognized on the basis of the gross carrying amount.
- Stage 3: Financial assets are classified as credit-impaired and thus assigned to stage 3 if they are deemed to be in default pursuant to article 178 CRR as operationalized in the DZ BANK Group's definition of default. Because the indicators and events deemed to be stage 3 criteria under IFRS 9 cover the same scope and, at the same time, lead to default pursuant to article 178 CRR, there is a correlation between these two classifications. Therefore, if the financial assets are in default, they are also classified as credit-impaired and assigned to stage 3. Here too, loss allowances are recognized in the amount of the lifetime expected credit losses. Interest income on credit-impaired financial assets is calculated on the amortized cost after loss allowances using the effective interest method.
- POCI assets: Financial assets that are already deemed credit-impaired upon initial recognition are not assigned to the 3-stage model. Instead, they are recognized at their fair value rather than at their gross carrying amount. Consequently, interest is recognized for these assets using a risk-adjusted effective interest rate.

The review of whether the credit risk of financial assets, financial guarantee contracts, and loan commitments has increased significantly since initial recognition is carried out on an ongoing basis. The assessment is conducted both for individual financial assets and for portfolios of assets using quantitative and qualitative analysis. As a rule, quantitative analysis looks at the expected credit risk over the entire residual life of the financial instruments in question. Macroeconomic information is also taken into account in the form of shift factors. The model-driven default probability profiles used in economic and regulatory risk management are adjusted on the basis of these shift factors (see the section 'Impact of macroeconomic conditions'). For the quantitative transfer criterion, the credit risk as at the balance sheet date for the residual life is compared with the assets' credit risk over the same maturity period estimated at the time of initial recognition. The thresholds that indicate a significant increase in credit risk are determined for each portfolio separately as the ratio of the latest changes in the lifetime probability of default (lifetime PD) to the portfolio's past lifetime PD. Internal risk measurement systems, external credit ratings, and risk forecasts are also used to assess the credit risk of financial assets. The maximum value for these transfer thresholds is 200 percent.

There are also 3 qualitative transfer criteria: assets for which forbearance measures have been agreed, assets where the counterparty has been put on the watchlist for the early identification of risk, and assets where payments are more than 30 days past due. These also have significantly increased credit risk and are assigned to stage 2, unless they need to be assigned to stage 3. Payments being more than 30 days past due is deemed a backstop criterion because, as a rule, the other transfer criteria mean that financial assets are allocated to stage 2 well before payments become more than 30 days past due.

Assets with low credit risk and/or an investment-grade credit rating are also monitored for increases in credit risk and for credit rating changes. If the quantitative transfer threshold is exceeded, however, the low credit risk exemption means that these assets are transferred to stage 2 only if a qualitative transfer criterion applies or if a non-investment-grade credit rating is awarded. The low credit risk exemption applies to securities.

If, on the balance sheet date, it is found that there is no longer a significant increase in credit risk compared with previous balance sheet dates, the financial assets in question are transferred back to stage 1 and the loss allowances are brought back down to the level of the 12-month expected credit loss. If a financial instrument in stage 3 recovers, the difference between the interest income determined for the period of credit impairment on the basis of amortized cost and the actual interest income recognized in respect of the financial instrument for the period concerned is reported as a reversal of an impairment loss or a reversal of loss allowances. A transfer back from stage 3 is carried out if there are no longer indicators of credit impairment. As there is assumed to be a methodological correlation between stage 3 and default status, the transfer back from stage 3 always takes place when the default status ceases to apply due to recovery of the financial instrument.

Expected losses are calculated as the probability-weighted present value of the expected outstanding payments. In the case of transactions assigned to stage 1 of the impairment model, the expected defaults in the next 12 months are analyzed. For stage 2 transactions, the residual life is used. The expected losses are discounted with the original effective interest rate for the transaction and variable-rate assets with the current interest rate. The calculation uses the regulatory model (probability of default, loss given default, and expected loan amount at the time of default), with adjustments to satisfy the requirements of IFRS 9. The estimated parameters incorporate historical, current, and forward-looking default information. This is applied when loss allowances are determined, in the form of shifts in the default probabilities calculated using statistical methods (known as shift factors). Depending on the portfolio and exposure amount, the calculation of the expected loss for specific exposures in stage 3 also uses this type of parameter-based approach or draws on individual expert appraisals of the expected cash flows and probability-weighted scenarios at individual transaction level.

For the purpose of calculating loss allowances for portfolios, the portfolios are grouped according to shared credit risk characteristics, e.g. credit rating, date of origination, residual life, industry and origin of the borrower, and type of asset.

Directly recognized impairment losses reduce the carrying amounts of assets directly. Unlike loss allowances, which are estimates, directly recognized impairment losses are specified in an exact amount if this is justified because the receivable is not collectible (e.g. as a result of the notification of an insolvency ratio). Impairment losses can be recognized directly by writing down the asset value and/or by using existing loss allowances. As a rule, asset values are written down directly after all recovery and enforcement measures have been completed. Directly recognized impairment losses are also applied to immaterial amounts.

Post-model adjustments are carried out in the retail consumer finance business because, for various input parameters in the loss allowance model, it is assumed that developments observable in the past are no longer fully representative of future developments. The evaluation for the first half of 2024 shows that the contribution to the post-model adjustment resulting from the impact of insolvency law reforms is no longer appropriate; the contribution was therefore reversed as at June 30, 2024. The contribution to the post-model adjustment recognized for the discrepancy in the forecast of the sales scorecard in Germany has been retained, as has the contribution that anticipates the decrease in internal replacements. The contribution to the post-model adjustment resulting from elevated risk in Austria will be reversed, as planned, in the second half of the year when a new scorecard goes live. After taking portfolio growth and an increase in risk into consideration, the updating of the post-model adjustments resulted in an overall reduction of €21 million in the expense for loss allowances in the first half of 2024, which led to a post-model adjustment volume of €25 million as at the reporting date (December 31, 2023: €46 million).

Impact of macroeconomic conditions

The established models and processes for calculating expected losses on specific exposures or at portfolio level in line with IFRS 9 have generally been retained. The impact of geopolitical risks is also examined at specific exposure level. Primary effects due to customer or supplier relationships and secondary effects such as rising energy prices are considered as part of impact analyses. These effects are factored into the calculation of specific loan loss allowances and, in a more nuanced manner, in the credit assessment and in decisions concerning inclusion in watchlists for the early identification of risk. At portfolio level, the forecast macroeconomic conditions are taken into account by adjusting the model-driven default probability profiles used in economic and regulatory risk management on the basis of shift factors.

The macroeconomic scenarios specifically look at future trends in the labor market, interest rates in the money market, changes in gross domestic product, inflation, real estate prices, and energy prices and are primarily based on economic forecasts provided by the Economic Roundtable, which is made up of representatives from the entities in the DZ BANK Group. The Economic Roundtable considers various scenarios when deciding on its macroeconomic forecasts. At a minimum, these scenarios must include a baseline scenario and a risk scenario that have a significant probability of occurrence in a relevant macroeconomic environment. The Economic Roundtable participants determine the probability of occurrence of the scenarios relative to each other.

The shift factors used as at June 30, 2024 are based on 2 macroeconomic scenarios developed by the Economic Roundtable of the DZ BANK Group in April 2024 (baseline scenario 80 percent and risk scenario 20 percent). The shift factors are then derived from macroeconomic inputs for various levels of default probability using stress test models that already existed or that were developed for IFRS 9.

The risk parameters adjusted on the basis of the macroeconomic scenarios are then factored into the calculation of loss allowances.

The methods and assumptions, including the forecasts, are validated regularly.

The main macroeconomic forecasts for 2024 to 2028 used to calculate the expected loss as at June 30, 2024 were as follows:

		2024		2025		2026		2027		2028	
		Baseline	Risk	Baseline	Risk	Baseline	Risk	Baseline	Risk	Baseline	Risk
DAX 40, Germany	Index	18,300	14,200	19,600	17,700	20,800	18,700	22,000	19,800	23,300	21,000
EURO STOXX 50, European Monetary Union (EMU)	Index	5,000	3,850	5,300	4,800	5,565	5,100	5,850	5,400	6,150	5,750
Unemployment rate, Germany	%	3.30	3.40	3.10	3.20	3.00	3.00	3.00	3.00	3.00	3.00
Harmonized unemployment rates, EU	%	5.90	6.10	5.70	5.90	5.70	5.80	5.70	5.80	5.70	5.70
Real GDP growth, Germany (seasonally and calendar-adjusted)	Compared with prior year (%)	0.25	-1.00	1.25	1.25	1.00	1.25	0.75	0.75	0.75	0.75
Real GDP growth, EU (seasonally and calendar-adjusted)	Compared with prior year (%)	1.00	-0.50	1.70	1.70	1.50	1.80	1.30	1.30	1.30	1.30
Consumer price index, Germany	Compared with prior year (%)	2.50	6.00	2.50	5.00	2.25	3.50	2.25	2.25	2.25	2.25
Oil price (Brent), USD/bbl	At year-end	95	110	90	105	85	105	82	100	80	95
Natural gas price, USD/MMBtu	At year-end	3.20	8.90	3.00	8.70	2.90	7.40	2.90	6.70	2.80	5.50
Commercial real estate price index, Germany	Compared with prior year (%)	-6.00	-8.00	-1.00	-2.50	0.00	-1.00	1.00	0.00	2.00	2.00
3m Euribor, EMU	%	3.15	4.55	2.30	3.70	2.30	2.70	2.30	2.30	2.30	2.30
10-year government bonds, Germany	%	2.50	3.50	2.75	3.75	2.75	3.50	2.75	3.00	2.75	2.75

On the basis of consultation with relevant experts, the shift factors determined using statistical methods were overridden again as at June 30, 2024 in order to better represent the currently critical market situation. This ensures that the shift factors used are in line both with experts' expectations and with the forecast changes in macroeconomic factors for the calculation of expected losses. The methodology for the process of overriding the model shift factors at group level was unchanged compared with December 31, 2023. This aspect includes all identifiable material increases in risk resulting from current developments and factors influencing the economy that have yet to be included in the credit rating. These factors specifically include the war in Ukraine, other geopolitical risks, commodity shortages, supply chain difficulties, high inflation coupled with soaring energy prices, and the consideration of climate-related and environmental risks. Overall, additional loss allowances of €302 million were recognized as at June 30, 2024 due to the expert-led override of the shift factors determined using statistical methods.

The shifted lifetime PDs are then factored into the decision on stage assignment. An increase in the lifetime PDs resulting from the shift factors being overridden does not necessarily lead to a transfer to stage 2. Consequently, a second override was carried out for portfolios that were particularly affected. Unlike the first override component, this second override component resulted in a general stage 2 classification for all unimpaired exposures in certain sectors. The automotive supplier, construction, home improvement store, and textile/clothing sectors and the asset classes hotels, department stores, shopping malls, inner-city commercial properties, building contractors, project developers, and office real estate were classified as stage 2 as at June 30, 2024, as had also been the case at December 31, 2023. This decision reflects current macroeconomic developments, such as supply chain disruptions, high inflation (primarily persistently high energy prices and increased construction costs), unavailability of materials, the shortage of skilled workers, the rise in interest rates, the gloomy economic outlook, and a changed competitor structure. The fixed staging that had been in place at the end of 2023 was reviewed again in the second quarter of 2024 and, given the continued high level of uncertainty, was retained.

Climate and environmental parameters are included in the Economic Roundtable's scenario analysis. In the first instance, the focus is on carbon pricing, which is a factor in assessing macroeconomic variables. The scenarios devised by the Network for Greening the Financial System (NGFS), which show how climate change and action can affect key economic variables, are used in this context. In terms of the impact on macroeconomic variables, the Economic Roundtable's forecast table is based on the legal situation in Germany and the technical assumptions of the European Central Bank (ECB). The impact on macroeconomic variables has been minimal to date. The introduction of a carbon price should only have a minor to moderate increasing effect on the annual average rate of inflation in Germany and the eurozone. This price effect is already included in inflation rates. As the carbon price is not expected to rise significantly in either Germany or the eurozone in the next few years, the pressure on prices from climate parameters is expected to remain immaterial over the forecast period. The climate and environmental parameters have only had an immaterial impact on loss allowances so far. Given the growing importance of sustainability aspects, the intention is to include climate and environmental parameters in the models for calculating loss allowances as at December 31, 2024.

Loss allowances and gross carrying amounts

In the DZ BANK Group, loss allowances are recognized for the classes ‘financial assets measured at fair value’, ‘financial assets measured at amortized cost’, ‘finance leases’, and ‘financial guarantee contracts and loan commitments’ in the amount of the expected credit losses. Trade receivables and contract assets that fall within the scope of IFRS 15 are assigned to the ‘financial assets measured at amortized cost’ class.

Financial assets measured at fair value

	Stage 1		Stage 2		Stage 3	
€ million	Loss allowances	Fair value	Loss allowances	Fair value	Loss allowances	Fair value
Balance as at Jan. 1, 2023	41	95,034	17	795	25	32
Addition/increase in loan drawdowns	6	11,952	-	20	-	-
Change to financial assets due to transfer between stages	14	309	-14	-331	-	22
Transfer from stage 1	-	-64	-	62	-	3
Transfer from stage 2	14	374	-14	-393	-	19
Use of loss allowances/directly recognized impairment losses	-	-	-	-	-6	-6
Derecognitions and repayments	-6	-6,584	-1	-91	-	-3
Changes to models/risk parameters	-24	-	-4	-	6	-
Additions	2	-	1	-	6	-
Reversals	-26	-	-5	-	-	-
Modifications	-	-1	-	-1	-	-
Modification losses	-	-1	-	-1	-	-
Amortization, fair value changes, and other changes in measurement	-	933	-	9	-	-
Exchange differences and other changes	-	-44	-	2	-	1
Deferred taxes	3	-	6	-	-	-
Balance as at Jun. 30, 2023	**34**	**101,597**	**5**	**403**	**24**	**46**
Balance as at Jan. 1, 2024	40	106,087	37	1,849	38	144
Addition/increase in loan drawdowns	8	14,287	-	55	-	-
Change to financial assets due to transfer between stages	-1	-96	1	89	-	7
Transfer from stage 1	-2	-179	2	173	-	6
Transfer from stage 2	1	83	-1	-84	-	1
Use of loss allowances/directly recognized impairment losses	-	-	-	-	-2	-2
Derecognitions and repayments	-5	-8,671	-6	-174	-	-5
Changes to models/risk parameters	-	-	6	-	-16	-
Additions	5	-	11	-	2	-
Reversals	-5	-	-5	-	-18	-
Amortization, fair value changes, and other changes in measurement	-	-2,017	-	51	-	23
Exchange differences and other changes	-	93	-	3	-	-
Deferred taxes	-	-	-2	-	17	-
Balance as at Jun. 30, 2024	**41**	**109,684**	**37**	**1,872**	**37**	**167**

Financial assets measured at amortized cost

€ million	Stage 1 Loss allowances	Stage 1 Gross carrying amount	Stage 2 Loss allowances	Stage 2 Gross carrying amount	Stage 3 Loss allowances	Stage 3 Gross carrying amount	POCI assets Loss allowances	POCI assets Gross carrying amount
Balance as at Jan. 1, 2023	266	388,040	548	38,094	1,185	2,716	18	142
Addition/increase in loan drawdowns	85	13,426,861	67	19,226	356	1,254	1	96
Change to financial assets due to transfer between stages	110	-1,741	-165	1,267	55	475	-	-
Transfer from stage 1	-25	-4,217	23	4,134	1	83	-	-
Transfer from stage 2	132	2,456	-205	-3,002	73	546	-	-
Transfer from stage 3	3	19	17	135	-19	-154	-	-
Use of loss allowances/directly recognized impairment losses	-	-2	-1	-	-96	-19	-2	-4
Derecognitions and repayments	-71	-13,397,077	-76	-20,433	-345	-1,682	-6	-157
Changes to models/risk parameters	-118	-	148	-	78	-	6	-
Additions	50	-	368	-	199	-	13	-
Reversals	-169	-	-220	-	-122	-	-7	-
Modifications	-	-	-	-	1	1	-	-
Modification gains	-	2	-	-	1	1	-	-
Modification losses	-	-2	-	-1	-	-	-	-
Amortization, fair value changes, and other changes in measurement	-	-97	-	-1	-	-4	-	-
Positive change in fair value of POCI assets	-	-	-	-	-	-	-	17
Exchange differences and other changes	1	63	-	8	-1	15	-5	2
Balance as at Jun. 30, 2023	**273**	**416,047**	**521**	**38,161**	**1,233**	**2,756**	**11**	**97**
Balance as at Jan. 1, 2024	263	397,607	506	41,967	1,457	3,325	18	133
Addition/increase in loan drawdowns	78	13,092,374	53	35,448	470	3,014	4	58
Change to financial assets due to transfer between stages	85	-3,602	-154	3,149	69	453	-	-
Transfer from stage 1	-31	-7,112	30	7,041	1	71	-	-
Transfer from stage 2	113	3,479	-195	-4,011	82	532	-	-
Transfer from stage 3	2	30	11	119	-13	-149	-	-
Use of loss allowances/directly recognized impairment losses	-	-	-1	-	-107	-20	-3	-4
Derecognitions and repayments	-65	-13,072,686	-65	-37,760	-446	-3,331	-9	-56
Changes to models/risk parameters	-98	-	243	-	64	-	7	-
Additions	51	-	443	-	254	-	21	-
Reversals	-149	-	-200	-	-191	-	-14	-
Amortization, fair value changes, and other changes in measurement	-	261	-	24	-	4	-	-
Positive change in fair value of POCI assets	-	-	-	-	-	-	-	17
Exchange differences and other changes	-	252	1	38	20	20	-	3
Changes in the scope of consolidation	-	-	-	40	-	-	-	-
Addition of subsidiaries	-	-	-	40	-	-	-	-
Balance as at Jun. 30, 2024	**262**	**414,207**	**583**	**42,905**	**1,526**	**3,466**	**17**	**151**

The undiscounted expected credit losses on purchased or originated credit-impaired financial assets measured at amortized cost that were recognized for the first time during the reporting period totaled €119 million (first half of 2023: €150 million).

Held-for-sale financial assets measured at amortized cost

€ million	Stage 1 Loss allowances	Stage 1 Gross carrying amount	Stage 2 Loss allowances	Stage 2 Gross carrying amount	Stage 3 Loss allowances	Stage 3 Gross carrying amount
Balance as at Jan. 1, 2024	8	1,560	2	115	15	30
Addition/increase in loan drawdowns	-	60	-	-	-	-
Change to financial assets due to transfer between stages	1	-8	2	6	-3	1
Transfer from stage 1	-	-36	-	35	-	1
Transfer from stage 2	-	27	-	-33	-	6
Transfer from stage 3	1	2	2	5	-3	-6
Derecognitions and repayments	-	-34	-	-2	-	-1
Changes to models/risk parameters	-1	-	-2	-	3	-
Additions	-	-	-	-	3	-
Reversals	-1	-	-2	-	-	-
Amortization, fair value changes, and other changes in measurement	-	-23	-	-2	-	-
Exchange differences and other changes	-	-52	-	-4	-	-1
Changes in scope of consolidation	-7	-1,504	-2	-113	-14	-29
Derecognition of subsidiaries	-7	-1,504	-2	-113	-14	-29
Balance as at Jun. 30, 2024	**-**	**-**	**-**	**-**	**-**	**-**

Finance leases

€ million	Stage 1 Loss allowances	Stage 1 Gross carrying amount	Stage 2 Loss allowances	Stage 2 Gross carrying amount	Stage 3 Loss allowances	Stage 3 Gross carrying amount
Balance as at Jan. 1, 2023	1	435	3	111	9	19
Addition/increase in loan drawdowns	1	93	2	3	1	-
Change to finance leases due to transfer between stages	-	23	-	-25	-	2
Transfer from stage 1	-	-41	-	41	-	-
Transfer from stage 2	-	65	-1	-68	-	3
Transfer from stage 3	-	-	-	2	-	-2
Derecognitions and repayments	-1	-111	-3	-27	-4	-4
Balance as at Jun. 30, 2023	**2**	**441**	**2**	**62**	**7**	**17**
Balance as at Jan. 1, 2024	1	394	3	63	3	6
Addition/increase in loan drawdowns	-	66	-	2	-	1
Change to finance leases due to transfer between stages	-	-11	-	8	-	3
Transfer from stage 1	-	-26	-	25	-	-
Transfer from stage 2	-	15	-	-18	-	4
Transfer from stage 3	-	-	-	1	-	-1
Derecognitions and repayments	-1	-85	-3	-14	-1	-3
Changes to models/risk parameters	1	-	2	-	1	-
Additions	1	-	3	-	2	-
Reversals	-1	-	-1	-	-1	-
Balance as at Jun. 30, 2024	**1**	**364**	**2**	**59**	**3**	**6**

Financial guarantee contracts and loan commitments

€ million	Stage 1 Loss allowances	Stage 1 Nominal amount	Stage 2 Loss allowances	Stage 2 Nominal amount	Stage 3 Loss allowances	Stage 3 Nominal amount	POCI assets Loss allowances	POCI assets Nominal amount
Balance as at Jan. 1, 2023	53	80,472	95	7,903	89	242	-	2
Addition/increase in loan drawdowns	33	47,158	27	2,459	34	109	1	6
Change to financial guarantee contracts and loan commitments due to transfer between stages	14	-303	-28	178	13	124	-	-
Transfer from stage 1	-3	-856	3	845	-	10	-	-
Transfer from stage 2	17	552	-31	-668	13	116	-	-
Transfer from stage 3	-	1	-	1	-	-2	-	-
Derecognitions and repayments	-41	-43,344	-30	-3,571	-29	-142	-	-2
Changes to models/risk parameters	-3	-	-4	-	-3	-	-	-
Additions	12	-	23	-	21	-	-	-
Reversals	-14	-	-27	-	-23	-	-	-
Amortization, fair value changes, and other changes in measurement	-	-20	-	-1	-	-1	-	-
Exchange differences and other changes	-	13	-	4	1	-	-	-
Balance as at Jun. 30, 2023	**57**	**83,976**	**60**	**6,973**	**104**	**332**	**1**	**5**
Balance as at Jan. 1, 2024	54	80,932	85	12,056	104	332	-	7
Addition/increase in loan drawdowns	33	31,997	32	4,199	43	133	1	8
Change to financial guarantee contracts and loan commitments due to transfer between stages	6	-554	-4	499	-1	54	-	-
Transfer from stage 1	-2	-1,127	2	1,121	-	6	-	-
Transfer from stage 2	7	573	-9	-625	2	52	-	-
Transfer from stage 3	-	1	3	3	-3	-4	-	-
Derecognitions and repayments	-39	-32,240	-45	-5,291	-49	-188	-1	-6
Changes to models/risk parameters	-	-	2	-	37	-	3	-
Additions	11	-	25	-	49	-	3	-
Reversals	-11	-	-23	-	-12	-	-	-
Amortization, fair value changes, and other changes in measurement	-	81	-	10	-	1	-	-
Exchange differences and other changes	-2	-140	2	-10	-2	-	-	-
Balance as at Jun. 30, 2024	**52**	**80,074**	**71**	**11,463**	**131**	**332**	**3**	**10**

The undiscounted expected credit losses on purchased or originated credit-impaired financial guarantee contracts and loan commitments that were recognized for the first time during the reporting period totaled €2 million (first half of 2023: €0 million).

Held-for-sale financial guarantee contracts and loan commitments

The nominal values of financial guarantee contracts and loan commitments classified as held for sale in stage 1 amounted to €14 million as at January 1, 2024. During the reporting period, there were increases of €31 million and derecognitions of €27 million. Following the sale of FLK, there were no longer any financial guarantee contracts and loan commitments classified as held for sale as at June 30, 2024. No financial guarantee contracts and loan commitments had been classified as held for sale during the first half of 2023.

» 44 Issuance activity

The following table shows the new issues, early repurchases, and repayments upon maturity in connection with issuance activity for unregistered paper, broken down by line item.

€ million	Jan. 1–Jun. 30, 2024 New issues	Jan. 1–Jun. 30, 2024 Repurchases	Jan. 1–Jun. 30, 2024 Repayments	Jan. 1–Jun. 30, 2023 New issues	Jan. 1–Jun. 30, 2023 Repurchases	Jan. 1–Jun. 30, 2023 Repayments
DEBT CERTIFICATES ISSUED INCLUDING BONDS	**50,760**	**-931**	**-39,099**	62,685	-822	-44,204
Bonds issued	**11,984**	**-579**	**-11,059**	17,564	-813	-5,009
Mortgage Pfandbriefe	2,985	-41	-1,797	2,241	-19	-1,210
Public-sector Pfandbriefe	-	-	-20	492	-	-100
Other bonds	8,998	-538	-9,242	14,832	-794	-3,699
Other debt certificates issued	**38,777**	**-352**	**-28,041**	45,120	-10	-39,195
FINANCIAL LIABILITIES HELD FOR TRADING	**7,049**	**-662**	**-5,476**	5,877	-498	-4,413
SUBORDINATED CAPITAL	**-**	**-1**	**-**	-	-5	-114
Total	**57,809**	**-1,594**	**-44,576**	68,562	-1,325	-48,731

The transactions shown under other debt certificates issued all relate to commercial paper. The transactions presented under financial liabilities held for trading are carried out using bonds issued, including share certificates, index-linked certificates, and other debt certificates. The transactions under subordinated capital are carried out using subordinated liabilities.

E Insurance business disclosures

» 45 Insurance revenue

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Insurance revenue not under the premium allocation approach	1,937	2,175
Insurance revenue under the premium allocation approach	4,220	3,993
Total	**6,158**	**6,168**

» 46 Presentation of income and expense in the insurance business

Insurance finance income or expenses, recognized in profit or loss and in other comprehensive income, from insurance contracts and reinsurance contracts

€ million	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Insurance finance income or expenses from insurance contracts	**-2,674**	**-3,744**
Changes in the fair value of underlying items relating to insurance contracts with direct participation features	-1,645	-2,554
Interest accretion effects	-1,063	-1,171
Effects of changes in the discount rate	109	-6
Foreign exchange gains and losses, net	-75	-13
Insurance finance income or expenses from reinsurance contracts held	**7**	**9**
Interest accretion effects	7	9
Total	**-2,667**	**-3,735**
of which recognized in profit or loss	-3,488	-2,506
of which recognized in other comprehensive income	820	-1,229

The portion of the net foreign exchange gains and losses recognized in profit or loss, which amounted to a net loss of €81 million (first half of 2023: net loss of €19 million), is included in other non-insurance gains and losses within gains and losses on investments held by insurance companies and other insurance company gains and losses in the income statement.

» 47 Change in the carrying amounts of insurance contract liabilities

The following tables show the change in the carrying amounts of the liability for remaining coverage and the liability for incurred claims:

	Liability for remaining coverage		**Liability for incurred claims**			**Total**
€ million	Excluding the loss component	Loss component	No premium allocation approach	Premium allocation approach: present value of expected cash flows	Premium allocation approach: risk adjustment	
Carrying amount of insurance contract assets as at Jan. 1, 2024	-1	-	-	-	-	-1
Carrying amount of insurance contract liabilities as at Jan. 1, 2024	92,568	464	3,854	8,170	92	105,150
Balance as at Jan. 1, 2024	92,568	464	3,854	8,170	92	105,149
OVERALL CHANGE RECOGNIZED IN PROFIT OR LOSS AND IN OTHER COMPREHENSIVE INCOME	**-3,569**	**-4**	**1,478**	**3,632**	**-**	**1,538**
Insurance service result from insurance contracts	**-5,644**	**-5**	**1,090**	**3,516**	**-1**	**-1,045**
Insurance revenue	***-6,158***	-	-	-	-	***-6,158***
Insurance contracts measured using the modified retrospective approach at the transition date	-1,053	-	-	-	-	-1,053
Insurance contracts measured using the fair value approach at the transition date	-32	-	-	-	-	-32
All other insurance contracts	-5,073	-	-	-	-	-5,073
Insurance service expenses	***514***	***-5***	***1,090***	***3,516***	***-1***	***5,113***
Incurred claims and other insurance service expenses	-23	-	969	3,637	3	4,586
Amortization of insurance acquisition cash flows	537	-	-	-	-	537
Changes in the fulfillment cash flows relating to the liability for incurred claims	-	-	121	-121	-5	-5
Changes that relate to future service under onerous contracts	-	-5	-	-	-	-5
Expenses for/income from investment components	**497**	**-**	**321**	**38**	**-**	**856**
Insurance finance income or expenses	**1,654**	**1**	**7**	**79**	**1**	**1,743**
Other	**-76**	**-**	**61**	**-**	**-**	**-15**
CONSOLIDATION EFFECTS	**16**	**-**	**-**	**-**	**-**	**16**
CHANGES RESULTING FROM CASH FLOWS	**7,235**	**-**	**-1,465**	**-3,604**	**-**	**2,166**
Premium income	10,892	-	-	-	-	10,892
Insurance acquisition cash flows	-783	-	-	-	-	-783
Incurred claims paid and other insurance service expenses paid	-2,874	-	-1,465	-3,604	-	-7,943
Balance as at Jun. 30, 2024	**96,250**	**461**	**3,867**	**8,198**	**92**	**108,869**
Carrying amount of insurance contract liabilities as at Jun. 30, 2024	96,250	461	3,867	8,199	92	108,869

€ million	Liability for remaining coverage: Excluding the loss component	Liability for remaining coverage: Loss component	Liability for incurred claims: No premium allocation approach	Liability for incurred claims: Premium allocation approach: present value of expected cash flows	Liability for incurred claims: Premium allocation approach: risk adjustment	Total
Carrying amount of insurance contract assets as at Jan. 1, 2023	-3	-	2	-	-	-2
Carrying amount of insurance contract liabilities as at Jan. 1, 2023	86,353	387	3,842	7,655	90	98,328
Balance as at Jan. 1, 2023	86,350	387	3,843	7,655	90	98,326
OVERALL CHANGE RECOGNIZED IN PROFIT OR LOSS AND IN OTHER COMPREHENSIVE INCOME	**-2,490**	**26**	**1,517**	**3,327**	**2**	**2,380**
Insurance service result from insurance contracts	**-5,700**	**26**	**1,276**	**3,175**	**-**	**-1,222**
Insurance revenue	***-6,168***	-	-	-	-	***-6,168***
Insurance contracts measured using the modified retrospective approach at the transition date	-2,164	-	-	-	-	-2,164
Insurance contracts measured using the fair value approach at the transition date	-131	-	-	-	-	-131
All other insurance contracts	-3,873	-	-	-	-	-3,873
Insurance service expenses	***468***	***26***	***1,276***	***3,175***	-	***4,947***
Incurred claims and other insurance service expenses	-23	-	1,188	3,145	1	4,311
Amortization of insurance acquisition cash flows	492	-	-	-	-	492
Changes in the fulfillment cash flows relating to the liability for incurred claims	-	-	89	30	-1	118
Changes that relate to future service under onerous contracts	-	26	-	-	-	26
Expenses for/income from investment components	**-7**	**-**	**213**	**37**	**-**	**243**
Insurance finance income or expenses	**3,363**	**-**	**-8**	**132**	**2**	**3,488**
Other	**-147**	**-**	**36**	**-17**	**-**	**-129**
CONSOLIDATION EFFECTS	**10**	**-**	**-**	**-**	**-**	**10**
CHANGES RESULTING FROM CASH FLOWS	**7,375**	**-**	**-1,620**	**-3,378**	**-**	**2,377**
Premium income	10,357	-	-	-	-	10,357
Insurance acquisition cash flows	-709	-	-	-	-	-709
Incurred claims paid and other insurance service expenses paid	-2,273	-	-1,620	-3,378	-	-7,271
Balance as at Jun. 30, 2023	**91,244**	**413**	**3,740**	**7,604**	**92**	**103,093**
Carrying amount of insurance contract assets as at Jun. 30, 2023	-3	-	3	-	-	-
Carrying amount of insurance contract liabilities as at Jun. 30, 2023	91,247	413	3,737	7,604	92	103,093

The following tables show the change in the insurance contracts for which the premium allocation approach is not applied:

€ million	Present value of expected cash flows	Risk adjustment	CSM	**Total**
Carrying amount of insurance contract liabilities as at Jan. 1, 2024	90,163	810	5,421	96,394
Balance as at Jan. 1, 2024	90,163	810	5,421	96,394
OVERALL CHANGE RECOGNIZED IN PROFIT OR LOSS AND IN OTHER COMPREHENSIVE INCOME	**1,773**	**3**	**-33**	**1,743**
Insurance service result	**955**	**-12**	**-1,641**	**-698**
Changes that relate to current service	***-455***	***-64***	***-278***	***-797***
Amortization of the CSM in profit or loss based on provision of service	-	-	-278	-278
Release of the risk adjustment through profit or loss	-	-64	-	-64
Deviation from budgeted figures	-455	-	-	-455
Changes that relate to future service	***1,283***	***58***	***-1,363***	***-21***
New business	-438	85	358	5
Changes in estimates that adjust the CSM	1,746	-26	-1,721	-
Changes in estimates that result in losses on onerous contracts or reversals of such losses	-25	-1	-	-26
Changes that relate to past service	***127***	***-6***	***-***	***121***
Change in the liability for incurred claims	127	-6	-	121
Insurance finance income or expenses	**909**	**12**	**1,602**	**2,523**
Other	**-92**	**2**	**7**	**-83**
CHANGES RESULTING FROM CASH FLOWS	**820**	**-**	**-**	**820**
Premium income	5,459	-	-	5,459
Insurance acquisition cash flows	-300	-	-	-300
Incurred claims paid and other insurance service expenses paid	-4,339	-	-	-4,339
Balance as at Jun. 30, 2024	**92,756**	**813**	**5,388**	**98,957**
Carrying amount of insurance contract liabilities as at Jun. 30, 2024	92,756	813	5,388	98,957

Of the amortization of the contractual service margin (CSM), an approximated amount of €71 million was attributable to contracts measured on a modified retrospective basis on the date of transition to IFRS 17 (first half of 2023: €68 million) and €6 million to contracts measured using the fair value approach (first half of 2023: €9 million).

€ million	Present value of expected cash flows	Risk adjustment	CSM	**Total**
Carrying amount of insurance contract assets as at Jan. 1, 2023	-1	-	1	-
Carrying amount of insurance contract liabilities as at Jan. 1, 2023	84,472	955	4,788	90,214
Balance as at Jan. 1, 2023	84,471	955	4,788	90,214
OVERALL CHANGE RECOGNIZED IN PROFIT OR LOSS AND IN OTHER COMPREHENSIVE INCOME	**2,416**	**135**	**142**	**2,693**
Insurance service result	**1,471**	**108**	**-2,370**	**-791**
Changes that relate to current service	*-566*	*-67*	*-240*	***-874***
Amortization of the CSM in profit or loss based on provision of service	-	-	-240	-240
Release of the risk adjustment through profit or loss	-	-67	-	-67
Deviation from budgeted figures	-566	-	-	-566
Changes that relate to future service	*1,940*	*184*	*-2,130*	***-6***
New business	-445	71	377	4
Changes in estimates that adjust the CSM	2,394	113	-2,507	-
Changes in estimates that result in losses on onerous contracts or reversals of such losses	-9	-	-	-9
Changes that relate to past service	*97*	*-9*	*-*	***89***
Change in the liability for incurred claims	97	-9	-	89
Insurance finance income or expenses	**1,060**	**25**	**2,512**	**3,597**
Other	**-115**	**1**	**-**	**-114**
CHANGES RESULTING FROM CASH FLOWS	**1,013**	**-**	**-**	**1,013**
Premium income	5,191	-	-	5,191
Insurance acquisition cash flows	-285	-	-	-285
Incurred claims paid and other insurance service expenses paid	-3,893	-	-	-3,893
Balance as at Jun. 30, 2023	**87,900**	**1,089**	**4,931**	**93,920**
Carrying amount of insurance contract liabilities as at Jun. 30, 2023	87,901	1,089	4,931	93,920

» 48 Yield curves

The following table shows the yield curves as at the latest measurement date used to measure the cash flows for insurance contracts and for reinsurance contracts held:

	1 year		**5 years**		**10 years**		**15 years**		**20 years**	
Percent	**Jun. 30, 2024**	Dec. 31, 2023	**Jun. 30, 2024**	Dec. 31, 2023	**Jun. 30, 2024**	Dec. 31, 2023	**Jun. 30, 2024**	Dec. 31, 2023	**Jun. 30, 2024**	Dec. 31, 2023
EUR	4.14	4.02	3.68	3.26	3.59	3.28	3.62	3.36	3.52	3.29
GBP	5.50	5.29	4.77	4.19	4.61	4.06	4.71	4.17	4.75	4.21
JPY	0.88	0.63	1.50	1.30	1.84	1.65	2.15	1.96	2.40	2.19
USD	5.63	5.33	4.85	4.34	4.67	4.23	4.67	4.27	4.63	4.24
ZAR	8.89	8.68	9.30	8.91	10.71	10.26	11.47	11.01	11.66	11.01

» 49 Risk and capital management

Further disclosures on the nature and extent of risks arising from insurance contracts (IFRS 17.121-132) are included in the interim group management report in chapter VI ‘Risk report’, sections 4 ‘Liquidity adequacy’ and 6 ‘Credit risk’ and for the Insurance sector in sections 12 ‘Actuarial risk’ and 13 ‘Market risk’.

The disclosures published in the risk report form part of the content of these notes to the consolidated financial statements.

F Other disclosures

» 50 Contingent liabilities

€ million	Jun. 30, 2024	Dec. 31, 2023
Contingent liabilities arising from contributions to the resolution fund for CRR credit institutions	169	169
Contingent liabilities in respect of litigation risk	10	10
Total	**178**	**179**

The contingent liabilities arising from contributions to the resolution fund for CRR credit institutions consist of irrevocable payment commitments (IPCs) that the Single Resolution Board (SRB) approved in response to applications that were made to furnish collateral in partial settlement of the contribution to the European bank levy. The DZ BANK Group has pledged cash collateral of the same amount. The pledged collateral is included within other loans and advances under other assets on the balance sheet. In light of a non-binding judgment of the European General Court (EGC) dated October 25, 2023 in a legal dispute between the SRB and a French bank, there is legal uncertainty as to whether the irrevocable payment commitments are annulled if a bank leaves the Single Resolution Mechanism (in particular if a banking license is handed back) and whether the cash collateral provided by the bank is returned to the bank without it having to pay the irrevocably committed amount. The case is pending a decision by the Court of Justice of the European Union (CJEU).

In addition, the contingent liabilities in respect of litigation risk comprise a small number of court proceedings relating to different cases. Where provisions have been recognized for particular claims, no contingent liabilities have to be recognized.

» 51 Financial guarantee contracts and loan commitments

€ million	Jun. 30, 2024	Dec. 31, 2023
Financial guarantee contracts	**11,980**	**11,441**
Loan guarantees	5,435	5,345
Letters of credit	1,016	912
Other guarantees and warranties	5,528	5,184
Loan commitments	**79,899**	**81,886**
Credit facilities to banks	28,617	30,073
Credit facilities to customers	37,733	37,644
Guarantee credits	1,479	1,751
Letters of credit	264	297
Global limits	11,807	12,120
Total	**91,879**	**93,327**

The amounts shown for financial guarantee contracts and loan commitments are the nominal values of the commitment in each case.

» 52 Trust activities

Trust assets and trust liabilities amounted to €1,777 million as at June 30, 2024 (December 31, 2023: €1,944 million).

» 53 Disclosures on revenue from contracts with customers

Disclosures on revenue from contracts with customers, broken down by operating segment

JANUARY 1 TO JUNE 30, 2024

€ million	BSH	R+V	TeamBank	
Income type				
Fee and commission income from securities business	-	-	-	
Fee and commission income from asset management	-	-	-	
Fee and commission income from payments processing including card processing	-	-	-	
Fee and commission income from lending business and trust activities	-	-	2	
Fee and commission income from financial guarantee contracts and loan commitments	-	-	-	
Fee and commission income from international business	-	-	-	
Fee and commission income from building society operations	17	-	-	
Other fee and commission income	35	-	17	
Fee and commission income in gains and losses on investments held by insurance companies and other insurance company gains and losses	-	33	-	
Other income in gains and losses on investments held by insurance companies and other insurance company gains and losses	-	60	-	
Other operating income	23	-	3	
Total	**75**	**93**	**22**	
Main geographical markets				
Germany	75	90	22	
Rest of Europe	-	4	-	
Rest of World	-	-	-	
Total	**75**	**93**	**22**	
Type of revenue recognition				
At a point in time	49	20	22	
Over a period of time	27	73	-	
Total	**75**	**93**	**22**	

	UMH	DZ BANK – CICB	DZ HYP	DZ PRIVAT-BANK	VR Smart Finanz	Other/ Consolidation	**Total**
	1,882	262	-	105	-	-48	2,202
	13	-	-	178	-	-2	190
	-	145	-	1	-	34	180
	-	59	4	-	-	34	99
	-	54	3	-	-	-1	55
	-	6	-	-	-	-	6
	-	-	-	-	-	-	17
	-	31	-	2	3	-1	87
	-	-	-	-	-	-1	32
	-	-	-	-	-	-	60
	7	-	-	-	-	10	43
	1,903	**558**	**7**	**287**	**3**	**24**	**2,971**
	1,404	518	7	26	3	16	2,161
	498	1	-	260	-	8	771
	-	40	-	-	-	-	40
	1,903	**558**	**7**	**287**	**3**	**24**	**2,971**
	167	201	5	102	3	21	590
	1,735	357	2	184	-	3	2,381
	1,903	**558**	**7**	**287**	**3**	**24**	**2,971**

JANUARY 1 TO JUNE 30, 2023

€ million	BSH	R+V	TeamBank	
Income type				
Fee and commission income from securities business	-	-	-	
Fee and commission income from asset management	-	-	-	
Fee and commission income from payments processing including card processing	-	-	-	
Fee and commission income from lending business and trust activities	-	-	2	
Fee and commission income from financial guarantee contracts and loan commitments	-	-	-	
Fee and commission income from international business	-	-	-	
Fee and commission income from building society operations	18	-	-	
Other fee and commission income	33	-	13	
Fee and commission income in gains and losses on investments held by insurance companies and other insurance company gains and losses	-	33	-	
Other income in gains and losses on investments held by insurance companies and other insurance company gains and losses	-	41	-	
Other operating income	25	-	4	
Total	**75**	**74**	**19**	
Main geographical markets				
Germany	70	71	19	
Rest of Europe	5	3	-	
Rest of World	-	-	-	
Total	**75**	**74**	**19**	
Type of revenue recognition				
At a point in time	62	5	19	
Over a period of time	12	69	-	
Total	**75**	**74**	**19**	

	UMH	DZ BANK – CICB	DZ HYP	DZ PRIVAT-BANK	VR Smart Finanz	Other/ Consolidation	**Total**
	1,677	254	-	104	-	-46	1,989
	12	-	-	156	-	-2	167
	-	154	-	1	-	35	190
	-	59	3	-	-	26	91
	-	43	3	-	-	-1	44
	-	6	-	-	-	-	6
	-	-	-	-	-	-	18
	-	33	-	2	3	4	87
	-	-	-	-	-	-1	32
	-	-	-	-	-	-	41
	6	-	-	-	-	5	39
	1,695	**549**	**7**	**263**	**3**	**18**	**2,704**
	1,275	514	7	26	3	12	1,997
	420	-	-	238	-	6	672
	-	34	-	-	-	-	34
	1,695	**549**	**7**	**263**	**3**	**18**	**2,704**
	198	198	5	101	3	14	606
	1,497	351	2	163	-	4	2,098
	1,695	**549**	**7**	**263**	**3**	**18**	**2,704**

» 54 Government grants

Government grants of €27 million were deducted from the carrying amount of investment property held by insurance companies (December 31, 2023: €28 million). The grants are non-interest-bearing, low-interest or forgivable loans. In addition, income subsidies of €1 million were recognized in profit or loss (first half of 2023: €1 million).

» 55 Employees

Average number of employees by employee group:

	Jan. 1– Jun. 30, 2024	Jan. 1– Jun. 30, 2023
Full-time employees	26,008	26,093
Part-time employees	7,653	7,431
Total	**33,660**	**33,524**

» 56 Board of Managing Directors

Uwe Fröhlich
(Co-Chief Executive Officer until June 30, 2024)

Dr. Cornelius Riese
(Chief Executive Officer since July 1, 2024)
(Co-Chief Executive Officer until June 30, 2024)
Responsibilities: Cooperative Banks/Verbund; Communications & Marketing; Group Audit; Legal; Strategy & Group Development (including Sustainability Coordination)

Souâd Benkredda
Responsibilities: Capital Markets Trading; Capital Markets Institutional Clients; Capital Markets Retail Clients; Group Treasury Structured Finance

Uwe Berghaus
Responsibilities: Corporate Banking Baden-Württemberg; Corporate Banking Bavaria; Corporate Banking North and East; Corporate Banking West/Central; Investment Promotion; Central Corporate Banking

Dr. Christian Brauckmann
Responsibilities: IT; Services & Organisation

Ulrike Brouzi
Responsibilities: Bank Finance; Compliance; Group Finance; Group Financial Services

Johannes Koch
(Member of the Board of Managing Directors since January 1, 2024)
Responsibilities: Group Human Resources; Research and Economics; Strategy & Group Development (including Sustainability Coordination)

Michael Speth
Responsibilities: Group Risk Controlling; Group Risk Control & Services; Credit

Thomas Ullrich
Responsibilities: Operations & Depository Bank; Payments & Accounts; Transaction Management

» 57 Supervisory Board

Henning Deneke-Jöhrens
(Chairman of the Supervisory Board)
Chief Executive Officer
Volksbank eG Hildesheim-Lehrte-Pattensen

Ulrich Birkenstock
(Deputy Chairman of the Supervisory Board)
Employee
R+V Allgemeine Versicherung AG

Ingo Stockhausen
(Deputy Chairman of the Supervisory Board)
Chief Executive Officer
Volksbank Oberberg eG
(Member of the Supervisory Board until May 16, 2024)

Dr. Gerhard Walther
(Deputy Chairman of the Supervisory Board
since May 16, 2024)
Chief Executive Officer
VR-Bank Mittelfranken Mitte eG

Uwe Barth
Spokesman of the Board of Managing Directors
Volksbank Freiburg eG

Heiner Beckmann
Senior manager
Sales Director South-West
R+V Allgemeine Versicherung AG
(Member of the Supervisory Board until May 16, 2024)

Pia Erning
Employee
DZ BANK AG
Deutsche Zentral-Genossenschaftsbank

Timm Häberle
Chief Executive Officer
VR-Bank Ludwigsburg eG

Dr. Peter Hanker
Spokesman of the Board of Managing Directors
Volksbank Mittelhessen eG

Andrea Hartmann
Employee
Bausparkasse Schwäbisch Hall AG

Pilar Herrero Lerma
Employee
DZ BANK AG
Deutsche Zentral-Genossenschaftsbank

Dr. Dierk Hirschel
Head of the Economic Policy Division
ver.di Bundesverwaltung

Josef Hodrus
Spokesman of the Board of Managing Directors
Volksbank Allgäu-Oberschwaben eG

Marija Kolak
President
Bundesverband der Deutschen Volksbanken
und Raiffeisenbanken e.V. (BVR)

Sascha Monschauer
Chief Executive Officer
VR Bank RheinAhrEifel eG

Dr. Florian Müller
Member of the Board of Managing Directors
Volksbank Sauerland eG
(Member of the Supervisory Board since May 16, 2024)

Wolfgang Nett
Sales Director
Union Investment Privatfonds GmbH

Rolf Dieter Pogacar
Employee
R+V Allgemeine Versicherung AG

Michael Sauer
Customer and Sales Director North
R+V Allgemeine Versicherung AG
(Member of the Supervisory Board since May 16, 2024)

Stephan Schack
Chief Executive Officer
Volksbank Raiffeisenbank eG, Itzehoe

Sigrid Stenzel
Freelance employee
ver.di Niedersachsen-Bremen

Kevin Voß
Labor union secretary
Banking industry group
ver.di Bundesverwaltung