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-Genossenschafts-bank, Frankfurt am Main, (DZ BANK) for the first half of the 2019 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 2018 financial year, unless these policies are subject to the amendments described below.

First-time application in 2019 of changes in IFRS

The following new accounting standards, amendments to IFRS, interpretations from the IFRS Interpretations Committee (IFRIC interpretations), and the specified improvements to IFRS are applied for the first time in DZ BANK's interim consolidated financial statements for the first half of the 2019 financial year:

- IFRS 16 *Leases*,
- *Prepayment Features with Negative Compensation* (Amendments to IFRS 9),
- *Long-term Interests in Associates and Joint Ventures* (Amendments to IAS 28),
- *Plan Amendment, Curtailment or Settlement* (Amendments to IAS 19),
- IFRIC 23 *Uncertainty over Income Tax Treatments*,
- *Annual Improvements to IFRSs 2015–2017 Cycle*.

The provisions of IFRS 16 *Leases* supersede the content of IAS 17 *Leases* and must be applied to financial years beginning on or after January 1, 2019. They must be adopted using either a fully retrospective approach or a modified retrospective approach. IFRS 16 is being adopted using the modified retrospective application method by recognizing any cumulative effect resulting from initial application of the standard as at January 1, 2019 in retained earnings. Under this method, IFRS 16 is applied to new contracts and to existing contracts that were not yet completed on the date of initial application. In connection with the transition to IFRS 16, no effects were identified as at the date of initial application that needed to be recognized directly in retained earnings. The main changes introduced by IFRS 16 relate to accounting by lessees. On the balance sheet, lessees have to recognize right-of-use assets for all leases and corresponding lease liabilities for the contracted payment obligations. Exemptions are permitted for leases involving low-value assets and short-term leases. For lessees and lessors, the disclosures required in the notes to the financial statements at the end of the financial year will be considerably more extensive under IFRS 16 than under IAS 17. The new provisions under IFRS 16 particularly affect the DVB and VR Smart Finanz (until July 9, 2019: VR LEASING) subgroups as lessors and all group companies that are lessees with leased or rented assets. Under IAS 17, minimum lease payments from operating leases had totaled €943 million as at December 31, 2018. At the time of initial application of IFRS 16 on January 1, 2019, however, liabilities from non-cancellable leases – in accordance with the definition of a lease pursuant to IFRS 16 – amounted to less than half of the minimum lease payments reported as at December 31, 2018. The liabilities from non-cancellable leases to be recognized at the time of initial application are measured at the present value of the remaining lease payments, discounted at the lessee's incremental borrowing rate of interest as at January 1, 2019. The weighted average incremental borrowing rates of interest for land and buildings and for office furniture and equipment are 2.1 percent and 1.2 percent respectively. The implementation of IFRS 16 has no material impact on the consolidated financial statements.

Prepayment Features with Negative Compensation (Amendments to IFRS 9) provides clarity on the classification and measurement of financial instruments with symmetric termination rights. The amendments explicitly state that the SPPI criterion under IFRS 9 is not breached in the event of reasonable negative compensation for early termination of the contract. The amendments were required to be applied for the first time from January 1, 2019. There is no impact on the consolidated financial statements.

Long-term Interests in Associates and Joint Ventures (Amendments to IAS 28) clarifies that an entity applies the rules of IFRS 9 to long-term interests in associates or joint ventures that form part of its net investment in the associate or joint venture but to which the equity method is not applied. The date of initial application for the amendments was January 1, 2019. There is no impact on the consolidated financial statements.

As a result of *Plan Amendment, Curtailment or Settlement* (Amendments to IAS 19), there is a mandatory requirement for any amendment, curtailment, or settlement of a defined benefit plan to be accompanied by a recalculation of the current service cost and the net interest for the remainder of the financial year using the latest actuarial assumptions that have been used for the necessary remeasurement of the net liability (asset). The amendments to the standard also include additions to clarify the effect of a plan amendment, curtailment, or settlement on the requirements regarding the asset ceiling. The amendments have been required to be applied since January 1, 2019. The implementation of the amendments to IAS 19 has no material impact on the consolidated financial statements.

IFRIC 23 *Uncertainty over Income Tax Treatments* sets out rules on the recognition and measurement of tax risk exposures, thereby closing gaps in this regard in IAS 12 *Income Taxes*. IFRIC 23 mainly addresses the decision as to whether an entity should consider the uncertain tax treatment of specific circumstances independently or collectively. It also addresses assumptions to be made by an entity in relation to the examination of tax treatments by tax authorities. IFRIC 23 also governs the determination of taxable profit (tax loss), tax bases, unused tax losses, unused tax credits, and tax rates as well as the effects of changes in facts and circumstances. The tax risks must be measured using the most likely amount or the expected value. IFRIC 23 specifies that an entity should use the measurement method that best reflects the risk involved. The application of IFRIC 23 does not result in any changes in accounting treatment because tax risk exposures have already been recognized with the best possible value in the past and because the scenario of a lower probability did not apply. The interpretation was required to be applied for the first time from January 1, 2019.

In accordance with the amendments to IFRS 3 *Business Combinations* as part of the *Annual Improvements to IFRSs 2015–2017 Cycle*, if an entity acquires further interests in a business that was previously a joint operation and thereby obtains control pursuant to IFRS 10, the rules in IFRS 3 regarding a business combination achieved in stages must be applied and the interests already held in that business must be remeasured. All of the interests previously held in the joint operation must be remeasured, not only the share of the assets and liabilities that was previously recognized. The amendments must be applied prospectively to business combinations occurring in financial years beginning on or after January 1, 2019.

In accordance with the amendments to IFRS 11 *Joint Arrangements* as part of the *Annual Improvements to IFRSs 2015–2017 Cycle*, if an entity acquires further interests in a joint operation and thereby obtains joint control, the interests already held in the joint operation do not have to be remeasured. The amendments must be applied prospectively to business combinations occurring in financial years beginning on or after January 1, 2019.

The amendments to IAS 12 *Income Taxes* as part of the *Annual Improvements to IFRSs 2015–2017 Cycle* clarify that the income tax consequences of dividends are more directly linked to previous transactions or events that generated distributable profits than to distributions to shareholders. An entity therefore recognizes the income tax consequences of dividends in profit or loss, in other comprehensive income, or in equity, depending on where these previous transactions or events were originally recorded. As a result of these amendments, the taxes on the payments deemed to be distributions in respect of AT1 bonds are no longer recognized in other comprehensive income. Due to the lack of materiality, the amendments were not adopted retrospectively. The amendments apply to financial years beginning on or after January 1, 2019.

The amendments to IAS 23 *Borrowing Costs* as part of the *Annual Improvements to IFRSs 2015–2017 Cycle* clarify that borrowing – where the original purpose of such borrowing was to obtain a specific qualifying asset – that remains outstanding after this qualifying asset is essentially ready for its intended use or sale must be included in the calculation of the capitalization rate on general borrowing for other qualifying assets for which no specific borrowing was obtained. The amendments must be applied prospectively to borrowing costs that are incurred in financial years beginning on or after January 1, 2019.

The *Annual Improvements to IFRSs 2015–2017 Cycle* described above have no material impact on DZ BANK's interim consolidated financial statements.

Changes in presentation

To increase transparency and improve the reliability and relevance of the information provided, the gains and losses from the derecognition of financial assets measured at amortized cost and the gains and losses from the derecognition of financial assets measured at amortized cost in the insurance business are presented as separate line items in the income statement from 2019 onward. Previously, these gains and losses from the derecognition of financial assets measured at amortized cost were explained below the income statement and in the affected notes to the financial statements. The adjusted amounts within the comparative figures are indicated by the footnote 'Amount restated'.

Income statement for the period January 1 to June 30, 2018

€ million	Jan. 1 – Jun. 30, 2018 before restatement	Amount of restatement	**Jan. 1 – Jun. 30, 2018 after restatement**
Net interest income	1,422	-2	1,420
(...)			
Gains and losses on investments	98	-52	46
(...)			
Gains and losses from the derecognition of financial assets measured at amortized cost	-	54	54
(...)			
Gains and losses on investments held by insurance companies and other insurance company gains and losses	1,215	4	1,219
(...)			
Gains and losses from the derecognition of financial assets measured at amortized cost in the insurance business	-	-4	-4
(...)			
Profit before taxes	1,034	-	1,034
Income taxes	-303	-	-303
Net profit	**731**	-	**731**

As a result of the netting of interest payments from certain derivatives, which was presented in note 2 (Accounting policies and estimates) of the consolidated financial statements as at December 31, 2018, the related comparative figures in the income statement and the affected disclosures in the notes to the interim consolidated financial statements as at June 30, 2019 have been restated. The adjusted amounts within the comparative figures are indicated by the footnote 'Amount restated'.

From 2019, loans and advances to customers at stage 3 that are measured at amortized cost are shown at a nominal amount of €1,082 million, inclusive of the interest entitlement attributable to this line item (gross interest entitlement). The adjustment resulted in a corresponding increase in both loans and advances to customers and loss allowances and changes to the affected disclosures in the notes. Due to a lack of materiality, presentation was previously on a net basis. The adjusted amounts within the comparative figures are indicated by the footnote 'Amount restated'.

Balance sheet as at December 31, 2018

ASSETS

€ million	Dec. 31, 2018 before restatement	Amount of restatement	**Dec. 31, 2018 after restatement**
(...)			
Loans and advances to customers	174,438	111	174,549
(...)			
Loss allowances	-2,305	-111	-2,416
(...)			
Total assets	**518,733**	-	**518,733**

Balance sheet as at January 1, 2018

ASSETS

€ million	Jan. 1, 2018 before restatement	Amount of restatement	**Jan. 1, 2018 after restatement**
(...)			
Loans and advances to customers	175,091	72	175,163
(...)			
Loss allowances	-2,862	-72	-2,934
(...)			
Total assets	**507,388**	**-**	**507,388**

From 2019, due to an adjustment to reflect industry practice, assets related to unit-linked contracts – where the investment risk is borne in full by the policyholder – are now also shown under financial assets mandatorily measured at fair value through profit or loss in note 46 (Classes, categories, and fair values of financial instruments). The adjusted amounts within the comparative figures are indicated by the footnote 'Amount restated'.

There are other minor presentation changes in the statement of cash flows and in notes 11 (Net fee and commission income), 23 (Items reclassified to the income statement), 49 (Nature and extent of risks arising from financial instruments and insurance contracts), and 54 (Disclosures on revenue from contracts with customers). The adjusted amounts within the comparative figures are indicated by the footnote 'Amount restated'.

Sources of estimation uncertainty

It is 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 these 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 insurance liabilities, 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.

>> 03 Scope of consolidation

In the first half of 2019, the change to the scope of consolidation resulted from the disposal of fully consolidated subsidiaries of the VR Smart Finanz subgroup in connection with the sale of shares in BFL Leasing GmbH, Eschborn, and in VR-IMMOBILIEN-LEASING GmbH, Eschborn.

>>04 Leases

DZ BANK Group as lessor

A lease is classified as a finance lease if substantially all the risks and rewards incidental to the ownership of an asset are transferred to the lessee. If the risks and rewards remain substantially with the lessor, the lease is an operating lease.

If a lease is classified as a finance lease, a receivable due from the lessee must be recognized. The receivable is measured at an amount equal to the net investment in the lease at the inception of the lease. Lease payments are apportioned into a payment of interest and repayment of principal. The interest portion based on the lessor's internal discount rate for a constant periodic rate of return is recognized as interest income, whereas the repayment of principal reduces the carrying amount of the receivable.

If a lease is classified as an operating lease, the DZ BANK Group retains beneficial ownership of the leased asset. These leased assets are reported as assets. The leased assets are measured at cost less depreciation and any impairment losses. Unless another systematic basis is more representative of the pattern of income over time, lease income is recognized in profit or loss on a straight-line basis over the term of the lease and is included in the current income from operating leases reported under net interest income. Gains on disposal, reversals of impairment losses, depreciation, losses on disposal, and impairment losses relating to the underlying leased assets are also included in the current income from operating leases.

DZ BANK Group as lessee

For every lease, the lessee recognizes a right-of-use asset for a leased asset as well as a corresponding lease liability. The only exceptions are short-term leases and leases for low-value assets; in these cases, the lease payments are recognized as an expense.

The amount of the right-of-use asset initially corresponds to the amount of the lease liability. In subsequent periods, the right-of-use asset is measured at amortized cost. Depreciation is recognized on a straight-line basis over the entire lease term and reported as an administrative expense.

The lease liability is measured as the present value of the future lease payments and is shown under other liabilities. Lease payments must be broken down into an interest portion and a repayment portion. The interest portion based on the internal discount rate or the incremental borrowing rate of interest is recognized as interest expense, whereas the repayment of principal reduces the liability.

The DZ BANK Group uses the practical expedient that enables a lessee to elect not to separate non-lease components from lease components and instead account for all components as a lease.

>>05 Loans and advances to banks and customers

All receivables attributable to registered debtors that are categorized as 'financial assets measured at amortized cost', 'financial assets measured at fair value through profit or loss', or 'financial assets measured at fair value through other comprehensive income' are recognized as loans and advances to banks and customers. To eliminate or significantly reduce accounting mismatches, certain loans and advances are designated as at fair value through profit or loss. In addition to fixed-term receivables and receivables payable on demand in connection with lending, lease, and money market business, loans and advances to banks and to customers include promissory notes and registered bonds.

Loans and advances to banks and customers are measured predominantly at amortized cost using the effective interest method. In fair value hedges, the carrying amounts of hedged receivables are adjusted for the change in fair value attributable to the hedged risk. The resulting hedge adjustments are recognized within other gains and losses on valuation of financial instruments under gains and losses arising on hedging transactions. Finance lease receivables are recognized and measured in accordance with the requirements for the accounting treatment of leases.

Loss allowances for loans and advances to banks and customers are determined on the basis of the IFRS 9 requirements applicable to the relevant category of financial assets. Depending on these requirements, the loss allowances are reported as a separate line item deduction on the assets side of the balance sheet or in the reserve from other comprehensive income.

Interest income on loans and advances to banks and customers is recognized as interest income from lending and money market business. This also includes the amortization of hedge adjustments to carrying amounts due to fair value hedges. Realized gains and losses on loans and advances to banks and customers that are categorized as ‘financial assets measured at amortized cost’ are included in the gains and losses from the derecognition of financial assets measured at amortized cost. Gains and losses on the valuation of loans and advances for which the fair value option has been exercised are shown under the item of the same name as part of other gains and losses on valuation of financial instruments.

>> 06 Investments

The following are recognized as investments: bearer bonds and other fixed-income securities, shares and other variable-yield securities, and other bearer or registered shareholdings in entities in which the DZ BANK Group has no significant influence, provided that these securities or shares are not held for trading purposes. Investments also include investments in subsidiaries, joint ventures, and associates.

Investments are initially recognized at fair value. Investments in joint ventures and associates that are accounted for using the equity method are initially recognized at cost. These investments are subsequently measured in accordance with the principles applicable to the relevant measurement category. In the case of investments in joint ventures and associates, the equity method is used for subsequent measurement.

Impairment losses on investments are determined on the basis of the IFRS 9 requirements applicable to the relevant category of financial assets or on the basis of accounting standards relevant to the financial assets concerned. They are generally reported as a separate line item on the assets side of the balance sheet or in the reserve from other comprehensive income.

Interest and any investment premiums or discounts amortized over the maturity of the investment using the effective interest method are recognized under net interest income. Dividends derived from equity instruments are recognized as current income under net interest income. Gains or losses on investments accounted for using the equity method are also reported under net interest income.

Gains and losses realized on the sale of investments that are not categorized as ‘financial assets measured at amortized cost’, as well as impairment losses and reversals thereof on investments in associates and joint ventures that are accounted for using the equity method, are reported under gains and losses on investments.

Realized gains and losses on investments that are categorized as 'financial assets measured at amortized cost' are included in the gains and losses from the derecognition of financial assets measured at amortized cost.

Fair value gains and losses on investments that are measured at fair value through profit or loss are reported under other gains and losses on valuation of financial instruments.

>> 07 Property, plant and equipment, investment property, and right-of-use assets

Property, plant and equipment, investment property, and right-of-use assets comprises land and buildings as well as office furniture and equipment with an estimated useful life of more than one year used by the entities in the DZ BANK Group. This item also includes assets subject to operating leases and right-of-use assets arising from leases. Investment property is real estate held for the purposes of generating rental income or capital appreciation.

Property, plant and equipment, and investment property is measured at cost less cumulative depreciation and cumulative impairment losses in subsequent financial years. Depreciation is largely recognized on a straight-line basis over the useful life of the asset. In most cases, external valuations are used to measure recoverability.

If facts or circumstances give rise to indications that assets might be impaired, the recoverable amount is determined. An impairment loss is recognized if the recoverable amount is lower than the asset's carrying amount. The recoverable amount is the higher of fair value less costs to sell and value in use.

Borrowing costs directly assignable to property, plant and equipment, and investment property are capitalized as part of the asset cost, provided that the asset concerned is a qualifying asset.

Right-of-use assets arising from leases are recognized in accordance with the requirements for the accounting treatment of leases and measured using the cost model.

Depreciation on property, plant and equipment, investment property, and right-of-use assets is reported as an administrative expense. Impairment losses and reversals of impairment losses are reported under other net operating income.

>>08 Other assets and other liabilities

Other assets also include intangible assets and contract assets. Intangible assets are recognized at cost. In the subsequent measurement of software, acquired customer relationships, and other intangible assets with a finite useful life, carrying amounts are reduced by cumulative amortization and cumulative impairment losses. Goodwill and other intangible assets with an indefinite useful life are not amortized but are subject to an impairment test at least once during the financial year.

If the group has satisfied its performance obligation in respect of a customer, but the customer has not yet paid the consideration and payment of the consideration still depends on a condition other than simply a due date, then the group recognizes a contract asset on the balance sheet in place of a receivable. As soon as an unconditional right to the consideration arises, the contract asset is reclassified as a receivable. Contract assets are not amortized, but are included in the calculation of the loss allowances in accordance with IFRS 9.

Other liabilities include other liabilities of insurance companies, accrued expenses, and lease liabilities.

The other assets and other liabilities line items are used to report assets and liabilities that cannot be allocated to any of the other asset or liability line items.

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

>> 09 Segment information

INFORMATION ON OPERATING SEGMENTS FOR THE PERIOD JANUARY 1 TO JUNE 30, 2019

€ million	DZ BANK	BSH	DVB
Net interest income	582	217	102
Net fee and commission income	198	-15	27
Gains and losses on trading activities	130	-	-4
Gains and losses on investments	-2	120	2
Other gains and losses on valuation of financial instruments	24	17	-16
Gains and losses from the derecognition of financial assets measured at amortized cost	11	15	-
Premiums earned	-	-	-
Gains and losses on investments held by insurance companies and other insurance company gains and losses	-	-	-
Insurance benefit payments	-	-	-
Insurance business operating expenses	-	-	-
Gains and losses from the derecognition of financial assets measured at amortized cost in the insurance business	-	-	-
Loss allowances	1	6	-50
Administrative expenses	-748	-249	-109
Other net operating income	13	38	-19
Profit/loss before taxes	**209**	**149**	**-67**
Cost/income ratio (%)	78.2	63.5	>100.0
Regulatory RORAC (%)	3.1	26.2	-42.7
Average own funds/solvency requirement	4,928	1,139	289
Total assets/total equity and liabilities as at Jun. 30, 2019	297,253	74,896	18,508

	DZ HYP	DZ PRIVAT-BANK	R+V	TeamBank	UMH	VR Smart Finanz	Other/ Consolidation	**Total**
	256	30	-	239	9	75	-231	1,279
	1	85	-	-11	706	-1	-32	958
	1	4	-	-	-	-	10	141
	10	-	-	-	-	-	-	130
	123	5	-	-	20	-	6	179
	-	-	-	-	-	-	-11	15
	-	-	8,328	-	-	-	-	8,328
	-	-	3,551	-	-	-	-35	3,516
	-	-	-9,634	-	-	-	-	-9,634
	-	-	-1,524	-	-	-	81	-1,443
	-	-	-6	-	-	-	-	-6
	4	-	-	-54	-	-12	-	-105
	-139	-114	-	-114	-436	-70	-67	-2,046
	12	3	-4	3	85	9	12	152
	268	**13**	**711**	**63**	**384**	**1**	**-267**	**1,464**
	34.5	89.8	-	49.4	53.2	84.3	-	56.6
	35.8	8.4	18.0	26.3	>100.0	0.7	-	17.0
	1,505	308	7,923	482	339	305	-	17,218
	89,588	21,774	117,806	8,982	2,463	4,092	-74,579	560,783

INFORMATION ON OPERATING SEGMENTS FOR THE PERIOD JANUARY 1 TO JUNE 30, 2018

€ million	DZ BANK	BSH	DVB
Net interest income [1]	591	385	80
Net fee and commission income	185	-12	42
Gains and losses on trading activities	195	-	-4
Gains and losses on investments [1]	29	3	11
Other gains and losses on valuation of financial instruments	19	3	-87
Gains and losses from the derecognition of financial assets measured at amortized cost [1]	45	10	-
Premiums earned	-	-	-
Gains and losses on investments held by insurance companies and other insurance company gains and losses [1]	-	-	-
Insurance benefit payments	-	-	-
Insurance business operating expenses	-	-	-
Gains and losses from the derecognition of financial assets measured at amortized cost in the insurance business [1]	-	-	-
Loss allowances	96	-2	-20
Administrative expenses	-756	-237	-97
Other net operating income	33	22	4
Profit/loss before taxes	**437**	**172**	**-71**
Cost/income ratio (%)	68.9	57.7	>100.0
Regulatory RORAC (%)	12.4	31.7	-34.1
Average own funds/solvency requirement	4,699	1,081	378
Total assets/total equity and liabilities as at Dec. 31, 2018	271,189	71,667	20,566

1 Amount restated (see note 2).

	DZ HYP	DZ PRIVAT-BANK	R+V	TeamBank	UMH	VR Smart Finanz	Other/ Consolidation	**Total**
	282	33	-	221	6	76	-254	1,420
	1	94	-	-5	705	5	-57	958
	-	5	-	-	-	-	10	206
	4	-	-	-	-7	7	-1	46
	30	-2	-	-	-22	-	11	-48
	-	-	-	-	-	-	-1	54
	-	-	8,115	-	-	-	-	8,115
	-	-	1,266	-	-	-	-47	1,219
	-	-	-7,709	-	-	-	-	-7,709
	-	-	-1,406	-	-	-	84	-1,322
	-	-	3	-	-	-	-7	-4
	4	-	-	-32	-	-2	-	44
	-162	-115	-	-112	-425	-70	-44	-2,018
	5	-7	5	4	16	-15	6	73
	164	**8**	**274**	**76**	**273**	**1**	**-300**	**1,034**
	50.3	93.5	-	50.9	60.9	95.9	-	67.1
	22.8	4.6	7.3	34.2	>100.0	0.6	-	12.5
	1,444	349	7,508	444	351	333	-	16,587
	85,882	18,322	107,351	8,536	2,559	4,768	-72,107	518,733

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 DZ BANK Group's information on operating segments has therefore been prepared on the basis of the internal management reporting system.

Definition of operating segments

Segmentation is based on the integrated risk and capital management system in the DZ BANK Group, the function of which is to create transparency, notably in respect of the risk structure and risk-bearing capacity of the individual management units in the group. The segment information presents separate disclosures for the management units DZ BANK, DZ HYP AG, Hamburg, (DZ HYP), TeamBank AG Nürnberg, Nuremberg, (TeamBank), DZ PRIVATBANK, and the BSH, DVB, R+V, UMH, and VR Smart Finanz subgroups. 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 in the DZ BANK Group is primarily based on the generally accepted accounting and measurement principles applicable to the DZ BANK Group.

Intragroup transactions between operating segments are carried out on an arm's-length basis. These transactions are 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. In the reporting period, it reflected the relationship between adjusted profit (profit before taxes largely taking into account performance-related income and capital structure effects) and average own funds for the year (determined on a quarterly basis) in accordance with the own funds/solvency requirement 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 were accounted for using the equity method.

The adjustments to net interest income were primarily the result of the elimination of intragroup dividend payments and profit distributions in connection with intragroup liabilities to dormant partners and were also attributable to the early redemption of issued bonds and commercial paper that had been acquired by entities in the DZ BANK Group other than the issuer.

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.

>> 10 Net interest income

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
INTEREST INCOME AND CURRENT INCOME AND EXPENSE	**3,059**	**2,979**
Interest income from	**3,019**	**2,936**
Lending and money market business	2,996	3,135[1]
Bonds and other fixed-income securities	274	201[1]
Portfolio hedges of interest-rate risk	-116	-275
Financial assets with a negative effective interest rate	-135	-125
Current income and expense from	**40**	**43**
Shares and other variable-yield securities	9	13
of which: income from other shareholdings	8	12
Investments in subsidiaries	2	2
Operating leases	11	-4
Entities accounted for using the equity method	17	32
of which relating to: investments in joint ventures	12	28
investments in associates	5	4
Income from profit-pooling, profit-transfer and partial profit-transfer agreements	1	-
INTEREST EXPENSE ON	**-1,780**	**-1,559**
Deposits from banks and customers	-1,639	-1,487[1]
Debt certificates issued including bonds	-283	-214
Subordinated capital	-39	-63
Portfolio hedges of interest-rate risk	67	95
Financial liabilities with a positive effective interest rate	118	114
Provisions and other liabilities	-4	-4
Total	**1,279**	**1,420**

1 Amount restated (see note 2).

The interest expense on provisions and other liabilities included interest expense on lease liabilities of €2 million in the reporting period.

>> 11 Net fee and commission income

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Fee and commission income	**1,985**	**1,874**
Securities business	1,497	1,413[1]
Asset management	112	114
Payments processing including card processing	146	125
Lending business and trust activities	70	72
Financial guarantee contracts and loan commitments	29	27
International business	5	5
Building society operations	17	15
Other	109	103
Fee and commission expenses	**-1,027**	**-916**
Securities business	-673	-590[1]
Asset management	-74	-74
Payments processing including card processing	-77	-64
Lending business	-42	-42
Financial guarantee contracts and loan commitments	-5	-4
Building society operations	-44	-36
Other	-112	-106
Total	**958**	**958**

1 Amount restated (see note 2).

In the reporting period, fee and commission income included revenue from contracts with customers pursuant to IFRS 15 in an amount of €1,980 million. In the first half of 2018, fee and commission income had included revenue from contracts with customers pursuant to IFRS 15 in an amount of €1,838 million[1] (see note 54).

>> 12 Gains and losses on trading activities

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Gains and losses on non-derivative financial instruments and embedded derivatives	-1,129	90
Gains and losses on derivatives	1,258	67
Gains and losses on exchange differences	12	49
Total	**141**	**206**

>> 13 Gains and losses on investments

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Gains and losses on the disposal of bonds and other fixed-income securities	**28**	35 [1]
Gains and losses on the disposal of shares and other variable-yield securities	**-**	-6
Gains and losses on investments in joint ventures	**98**	14
Disposals	98	6
Reversals of impairment losses	-	8
Gains and losses on investments in associates	**4**	3
Disposals	4	8
Impairment losses	-7	-5
Reversals of impairment losses	7	-
Total	**130**	46

1 Amount restated (see note 2).

>> 14 Other gains and losses on valuation of financial instruments

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Gains and losses from hedge accounting	**2**	-11
Gains and losses on derivatives used for purposes other than trading	**27**	-46
Gains and losses on financial instruments designated as at fair value through profit or loss	**123**	-18
Gains and losses on non-derivative financial instruments and embedded derivatives	-187	-91
Gains and losses on derivatives	310	73
Gains and losses on financial assets mandatorily measured at fair value through profit or loss	**27**	27
Total	**179**	-48

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.

>> 15 Premiums earned

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Net premiums written	**9,164**	**8,926**
Gross premiums written	9,237	8,961
Reinsurance premiums ceded	-73	-35
Change in provision for unearned premiums	**-836**	**-811**
Gross premiums	-857	-816
Reinsurers' share	21	5
Total	**8,328**	**8,115**

>> 16 Gains and losses on investments held by insurance companies and other insurance company gains and losses

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Income from investments held by insurance companies	**4,624**	**2,786**
Interest income and current income	1,273	1,215
Income from reversals of impairment losses and reversals of loss allowances, and unrealized gains	241	346
Gains on valuation through profit or loss of investments held by insurance companies	2,764	724
Gains on disposals	346	501[1]
Expenses in connection with investments held by insurance companies	**-1,040**	**-1,651**
Administrative expenses	-104	-69
Depreciation/amortization expense, additions to loss allowances, and impairment losses and unrealized losses	-239	-247
Losses on valuation through profit or loss of investments held by insurance companies	-469	-924
Losses on disposals	-228	-411[1]
Other gains and losses of insurance companies	**-68**	**84**
Other insurance gains and losses	154	122
Other non-insurance gains and losses	-222	-38
Total	**3,516**	**1,219**

1 Amount restated (see note 2).

Income from and expenses in connection with investments held by insurance companies included additions to loss allowances of €2 million (first half of 2018: €3 million), reversals of loss allowances of €2 million (first half of 2018: €3 million), and directly recognized impairment losses of €1 million. There had been no directly recognized impairment losses in the first half of 2018.

>> 17 Insurance benefit payments

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Expenses for claims	**-5,570**	**-5,006**
Gross expenses for claims	-5,579	-5,040
Reinsurers' share	9	34
Changes in the benefit reserve and in other insurance liabilities	**-2,479**	**-2,712**
Gross changes in provisions	-2,479	-2,684
Reinsurers' share	-	-28
Expenses for premium refunds	**-1,585**	**9**
Gross expenses for premium refunds	-409	-17
Expenses for deferred premium refunds	-1,176	26
Total	**-9,634**	**-7,709**

>> 18 Insurance business operating expenses

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Gross expenses	-1,451	-1,332
Reinsurers' share	8	10
Total	**-1,443**	**-1,322**

>> 19 Loss allowances

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Loss allowances for loans and advances to banks	**2**	**21**
Additions	-8	-6
Reversals	8	27
Recoveries on loans and advances to banks previously impaired	2	-
Loss allowances for loans and advances to customers	**-104**	**-26**
Additions	-799	-829
Reversals	673	777
Directly recognized impairment losses	-14	-13
Recoveries on loans and advances to customers previously impaired	26	31
Other	10	8
Loss allowances for investments	**2**	**4**
Additions	-5	-16
Reversals	7	20
Other loss allowances for loans and advances	**-5**	**45**
Additions to and reversals of provisions for loan commitments	-11	24
Additions to and reversals of provisions for financial guarantee contracts	7	21
Additions to and reversals of other provisions for loans and advances	-1	-
Total	**-105**	**44**

Gains and losses from credit-risk-related modifications and other gains and losses on 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.

>> 20 Administrative expenses

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Staff expenses	-923	-906
General and administrative expenses	-993	-1,025
Depreciation and amortization	-130	-87
Total	**-2,046**	**-2,018**

>> 21 Other net operating income

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Gains and losses on non-current assets and disposal groups classified as held for sale	108	7
Income from the reversal of provisions and accruals	67	59
Restructuring expenses	-50	-12
Expenses for other taxes	-11	-11
Residual other net operating income	38	30
Total	**152**	**73**

>> 22 Income taxes

IAS 34 states that income taxes in interim 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.

>> 23 Items reclassified to the income statement

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

€ million	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Gains and losses on debt instruments measured at fair value through other comprehensive income	**1,830**	**-304**
Gains (+)/losses (-) arising during the reporting period	1,913	-197 [1]
Gains (-)/losses (+) reclassified to the income statement during the reporting period	-83	-107 [1]
Gains and losses on cash flow hedges	**-**	**-7**
Gains (+)/losses (-) arising during the reporting period	-	-3
Gains (-)/losses (+) reclassified to the income statement during the reporting period	-	-4
Exchange differences on currency translation of foreign operations	**1**	**7**
Gains (+)/losses (-) arising during the reporting period	1	8
Gains (-)/losses (+) reclassified to the income statement during the reporting period	-	-1
Gains and losses on hedges of net investments in foreign operations	**2**	**-3**
Gains (+)/losses (-) arising during the reporting period	2	-10
Gains (-)/losses (+) reclassified to the income statement during the reporting period	-	7

1 Amount restated (see note 2).

>> 24 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, 2019 Amount before taxes	Jan. 1 – Jun. 30, 2019 Income taxes	Jan. 1 – Jun. 30, 2019 Amount after taxes	Jan. 1 – Jun. 30, 2018 Amount before taxes	Jan. 1 – Jun. 30, 2018 Income taxes	Jan. 1 – Jun. 30, 2018 Amount after taxes
Items that may be reclassified to the income statement	**1,833**	**-511**	**1,322**	**-307**	**137**	**-170**
Gains and losses on debt instruments measured at fair value through other comprehensive income	1,830	-510	1,320	-304	131	-173
Gains and losses on cash flow hedges	-	-	-	-7	-	-7
Exchange differences on currency translation of foreign operations	1	-	1	7	-1	6
Gains and losses on hedges of net investments in foreign operations	2	-1	1	-3	7	4
Items that will not be reclassified to the income statement	**-107**	**77**	**-30**	**102**	**-25**	**77**
Gains and losses on equity instruments for which the fair value OCI option has been exercised	258	-41	217	93	-23	70
Gains and losses in relation to financial liabilities for which the fair value option has been exercised, attributable to changes in own credit risk	-135	42	-93	13	-4	9
Gains and losses arising from remeasurement of defined benefit plans	-230	76	-154	-4	2	-2
Total	**1,726**	**-434**	**1,292**	**-205**	**112**	**-93**

C Balance sheet disclosures

>> 25 Cash and cash equivalents

€ million	Jun. 30, 2019	Dec. 31, 2018
Cash on hand	256	386
Balances with central banks	66,014	51,459
Total	**66,270**	**51,845**

>> 26 Loans and advances to banks

€ million	Repayable on demand		Other loans and advances		Total	
	Jun. 30, 2019	Dec. 31, 2018	Jun. 30, 2019	Dec. 31, 2018	Jun. 30, 2019	Dec. 31, 2018
Domestic banks	**3,558**	**4,392**	**81,393**	**80,599**	**84,951**	**84,991**
Affiliated banks	1,436	1,443	74,013	72,625	75,449	74,068
Other banks	2,122	2,949	7,380	7,974	9,502	10,923
Foreign banks	**5,199**	**4,107**	**2,803**	**2,529**	**8,002**	**6,636**
Total	**8,757**	**8,499**	**84,196**	**83,128**	**92,953**	**91,627**

>> 27 Loans and advances to customers

€ million	Jun. 30, 2019	Dec. 31, 2018
Loans and advances to domestic customers	153,249	145,932
Loans and advances to foreign customers	28,565	28,617[1]
Total	**181,814**	**174,549**

1 Amount restated (see note 2).

>> 28 Hedging instruments (positive fair values)

Hedging instruments (positive fair values) amounted to €259 million (December 31, 2018: €883 million) and resulted solely from derivatives used as fair value hedges.

>> 29 Financial assets held for trading

€ million	Jun. 30, 2019	Dec. 31, 2018
DERIVATIVES (POSITIVE FAIR VALUES)	**22,229**	**15,647**
Interest-linked contracts	20,212	13,773
Currency-linked contracts	1,052	1,194
Share-/index-linked contracts	565	403
Other contracts	51	52
Credit derivatives	349	225
BONDS AND OTHER FIXED-INCOME SECURITIES	**12,104**	**10,939**
Money market instruments	243	187
Bonds	11,861	10,752
SHARES AND OTHER VARIABLE-YIELD SECURITIES	**1,073**	**989**
Shares	1,064	959
Investment fund units	8	29
Other variable-yield securities	1	1
RECEIVABLES	**12,728**	**10,367**
of which: from affiliated banks	259	485
from other banks	10,153	7,927
Money market placements	**11,903**	**9,619**
with banks	9,897	7,975
with customers	2,006	1,644
Promissory notes and registered bonds	**825**	**748**
from banks	515	437
from customers	310	311
Total	**48,134**	**37,942**

>> 30 Investments

€ million	Jun. 30, 2019	Dec. 31, 2018
Bonds and other fixed-income securities	**47,637**	**45,614**
Money market instruments	393	466
Bonds	47,244	45,148
Shares and other variable-yield securities	**1,733**	**1,577**
Shares and other shareholdings	578	526
Investment fund units	1,144	1,041
Other variable-yield securities	11	10
Investments in subsidiaries	**316**	**300**
Investments in joint ventures	**332**	**482**
Investments in associates	**285**	**289**
Total	**50,303**	**48,262**

The carrying amount of investments in joint ventures accounted for using the equity method totaled €332 million (December 31, 2018: €482 million). €285 million of the investments in associates has been accounted for using the equity method (December 31, 2018: €288 million).

>> 31 Investments held by insurance companies

€ million	Jun. 30, 2019	Dec. 31, 2018
Investment property	3,233	2,842
Investments in subsidiaries	801	758
Investments in joint ventures	17	15
Investments in associates	3	3
Mortgage loans	9,443	9,307
Promissory notes and loans	7,515	7,386
Registered bonds	9,448	9,567
Other loans	665	654
Variable-yield securities	10,212	9,186
Fixed-income securities	54,148	48,954
Derivatives (positive fair values)	575	168
Loss allowances	-3	-4
Deposits with ceding insurers and other investments	317	294
Assets related to unit-linked contracts	12,961	11,710
Total	**109,335**	**100,840**

>> 32 Property, plant and equipment, investment property, and right-of-use assets

€ million	Jun. 30, 2019	Dec. 31, 2018
Land and buildings	919	911
Office furniture and equipment	177	182
Assets subject to operating leases	50	72
Investment property	243	258
Right-of-use assets	297	
Total	**1,686**	**1,423**

>> 33 Other assets

€ million	Jun. 30, 2019	Dec. 31, 2018
Other assets held by insurance companies	3,730	3,372
Goodwill	41	41
Other intangible assets	449	436
of which: software	407	394
acquired customer relationships	4	4
Other loans and advances	318	338
Residual other assets	725	468
Total	**5,263**	**4,655**

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

€ million	Jun. 30, 2019	Dec. 31, 2018
Intangible assets	133	140
Reinsurers' share of insurance liabilities	151	139
Receivables	1,610	1,650
Credit balances with banks, checks and cash on hand	638	409
Residual other assets	1,200	1,036
Loss allowances	-2	-2
Total	**3,730**	**3,372**

Residual other assets included right-of-use assets amounting to €60 million as at June 30, 2019.

>> 34 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 changes in loss allowances recognized under assets were as follows:

	Loss allowances for loans and advances to banks			Loss allowances for 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, 2018	9	-	22	217	185	2,420[1]	11
Additions	5	1	-	119	185	520	5
Utilizations	-	-	-	-	-1	-348[1]	-
Reversals	-6	-1	-20	-208	-94	-466	-8
Other changes	-	-	-	93	-111	109[1]	-
Balance as at Jun. 30, 2018	**8**	**-**	**2**	**221**	**164**	**2,235**	**8**
Balance as at Jan. 1, 2019	8	-	4	218	164	1,957[1]	3
Additions	6	-	2	144	217	435	3
Utilizations	-	-	-	-	-4	-237	-
Reversals	-6	-	-2	-212	-95	-359	-5
Other changes	-	-	-	73	-110	71	-
Balance as at Jun. 30, 2019	**8**	**-**	**4**	**223**	**172**	**1,867**	**1**

1 Amount restated (see note 2).

	Loss allowances for investments			Total
€ million	Stage 1	Stage 2	Stage 3	
Balance as at Jan. 1, 2018	10	36	24	2,934
Additions	3	12	1	851
Utilizations	-	-	-	-349
Reversals	-4	-6	-6	-819
Other changes	-2	2	1	92
Balance as at Jun. 30, 2018	**7**	**44**	**20**	**2,709**
Balance as at Jan. 1, 2019	5	40	17	2,416
Additions	-	3	-	810
Utilizations	-	-	-	-241
Reversals	-1	-4	-	-684
Other changes	-	-	-	34
Balance as at Jun. 30, 2019	**4**	**39**	**17**	**2,335**

>> 35 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. Gains and losses arising from the classification of assets and disposal groups as held for sale are reported under other net operating income.

At the level of the DVB subgroup, the credit portfolios for the land transport finance business, which previously constituted a disposal group not qualifying as a discontinued operation, were sold in the first half of 2019, as was the fully consolidated subsidiary LogPay Financial Services GmbH, Eschborn (LogPay). The net gain on disposal of €38 million was reported under other net operating income. Of this total, €9 million was attributable to the disposal of the land transport finance business and €29 million to the disposal of LogPay. The credit portfolios of the aviation finance business continue to be recognized, in an amount of €4,444 million, as a disposal group not qualifying as a discontinued operation. The sale is expected to be completed by the end of 2019.

Assets of €55 million and liabilities of €18 million at VR Smart Finanz similarly constitute disposal groups that do not qualify as discontinued operations. They are attributable to a fully consolidated subsidiary. BFL Leasing GmbH, Eschborn, which previously constituted a disposal group not qualifying as a discontinued operation and no longer formed part of the core business of VR Smart Finanz, was sold in the first half of 2019, as was 94.0 percent of VR-IMMOBILIEN-LEASING GmbH, Eschborn. The net loss on disposal of €3 million was reported under other net operating income.

Other disposal groups not qualifying as discontinued operations included units in various investment funds as at June 30, 2019. A fully consolidated subsidiary was sold in the first six months of 2019. The net gain on disposal of €72 million was reported under other net operating income.

The individual non-current assets classified as held for sale comprise a long-term equity investment and items of property, plant and equipment.

>> 36 Deposits from banks

€ million	Repayable on demand Jun. 30, 2019	Dec. 31, 2018	With agreed maturity or notice period Jun. 30, 2019	Dec. 31, 2018	Total Jun. 30, 2019	Dec. 31, 2018
Domestic banks	**44,420**	44,142	**81,690**	84,606	**126,110**	128,748
Affiliated banks	38,038	38,365	21,010	22,193	59,048	60,558
Other banks	6,382	5,777	60,680	62,413	67,062	68,190
Foreign banks	**7,003**	3,968	**13,273**	9,770	**20,276**	13,738
Total	**51,423**	48,110	**94,963**	94,376	**146,386**	142,486

>> 37 Deposits from customers

€ million	Repayable on demand Jun. 30, 2019	Dec. 31, 2018	With agreed maturity or notice period Jun. 30, 2019	Dec. 31, 2018	Total Jun. 30, 2019	Dec. 31, 2018
Domestic customers	19,371	19,907	98,173	97,084	117,544	116,991
Foreign customers	15,392	10,555	4,194	5,002	19,586	15,557
Total	**34,763**	30,462	**102,367**	102,086	**137,130**	132,548

>> 38 Debt certificates issued including bonds

€ million	Jun. 30, 2019	Dec. 31, 2018
Bonds issued	**49,403**	50,958
Mortgage Pfandbriefe	20,463	19,318
Public-sector Pfandbriefe	2,407	2,452
Other bonds	26,533	29,188
Other debt certificates issued	**22,920**	12,951
Total	**72,323**	63,909

All other debt certificates issued are commercial paper.

>> 39 Hedging instruments (negative fair values)

Hedging instruments (negative fair values) amounted to €995 million (December 31, 2018: €2,516 million) and resulted solely from derivatives used as fair value hedges.

>> 40 Financial liabilities held for trading

€ million	Jun. 30, 2019	Dec. 31, 2018
DERIVATIVES (NEGATIVE FAIR VALUES)	**21,993**	**16,079**
Interest-linked contracts	18,522	12,099
Currency-linked contracts	2,005	1,975
Share-/index-linked contracts	1,327	1,853
Other contracts	69	78
Credit derivatives	70	74
SHORT POSITIONS	**3,098**	**1,102**
BONDS ISSUED	**22,095**	**20,250**
DEPOSITS	**14,095**	**7,548**
of which: from affiliated banks	2,482	2,582
from other banks	11,067	4,346
Money market deposits	**13,847**	**7,292**
from banks	13,446	6,816
from customers	401	476
Promissory notes and registered bonds issued	**248**	**256**
to banks	103	112
to customers	145	144
Total	**61,281**	**44,979**

Bonds issued mainly comprise share certificates and index-linked certificates.

>> 41 Provisions

€ million	Jun. 30, 2019	Dec. 31, 2018
Provisions for employee benefits	**1,844**	**1,635**
Provisions for defined benefit plans	1,366	1,161
Provisions for other long-term employee benefits	150	155
of which: for semi-retirement schemes	26	26
Provisions for termination benefits	304	282
of which: for early retirement schemes	10	11
for restructuring	268	242
Provisions for short-term employee benefits	24	37
Provisions for share-based payment transactions	**31**	**42**
Other provisions	**1,834**	**1,703**
Provisions for onerous contracts	14	13
Provisions for restructuring	20	25
Provisions for loan commitments	60	49
Provisions for financial guarantee contracts	106	113
Other provisions for loans and advances	40	39
Provisions relating to building society operations	1,257	1,072
Residual provisions	337	392
Total	**3,709**	**3,380**

The discount rate applied to defined benefit plans had been reduced to 1.00 percent as at June 30, 2019 (December 31, 2018: 1.75 percent).

>> 42 Insurance liabilities

€ million	Jun. 30, 2019	Dec. 31, 2018
Provision for unearned premiums	2,032	1,171
Benefit reserve	63,255	61,709
Provision for claims outstanding	12,837	12,079
Provision for premium refunds	12,246	8,283
Other insurance liabilities	66	64
Reserve for unit-linked insurance contracts	10,981	9,946
Total	**101,417**	**93,252**

>> 43 Other liabilities

€ million	Jun. 30, 2019	Dec. 31, 2018
Other liabilities of insurance companies	6,194	5,806
Accruals	795	1,155
Financial liabilities from contingent considerations in a business combination	5	5
Other payables	176	399
Lease liabilities	295	
Residual other liabilities	586	554
Total	**8,051**	**7,919**

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

€ million	Jun. 30, 2019	Dec. 31, 2018
Other provisions	411	373
Payables and residual other liabilities	5,783	5,433
Total	**6,194**	**5,806**

Payables and residual other liabilities included lease liabilities amounting to €78 million as at June 30, 2019.

>> 44 Subordinated capital

€ million	Jun. 30, 2019	Dec. 31, 2018
Subordinated liabilities	2,536	2,810
Profit-sharing rights	66	68
Other hybrid capital	6	6
Share capital repayable on demand	12	13
Total	**2,620**	**2,897**

>>45 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 comprehen-sive income	Cash flow hedge reserve	Currency translation reserve
Equity as at Jan. 1, 2018	380	-	537	5	43
Other comprehensive income/loss	79	8	-147	-6	15
Total comprehensive income/loss	**79**	**8**	**-147**	**-6**	**15**
Changes in scope of consolidation	4	-	-	-	-
Reclassifications within equity	-19	-	-	-	-
Equity as at Jun. 30, 2018	**444**	**8**	**390**	**-1**	**58**
Equity as at Jan. 1, 2019	361	23	131	-	84
Other comprehensive income/loss	198	-91	1,192	-	3
Total comprehensive income/loss	**198**	**-91**	**1,192**	**-**	**3**
Changes in scope of consolidation	1	-	-	-	-7
Reclassifications within equity	-4	-	-	-	-
Equity as at Jun. 30, 2019	**556**	**-68**	**1,323**	**-**	**80**

The changes in loss allowances included in the reserve from other comprehensive income were as follows:

€ million	Loss allowances for loans and advances to customers			Loss allowances for investments		
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
Balance as at Jan. 1, 2018	1	3	-	4	7	33
Additions	-	-	-	2	-	-
Reversals	-	-1	-	-3	-3	-
Other changes	-	1	-	-	1	-
Balance as at Jun. 30, 2018	**1**	**3**	**-**	**3**	**5**	**33**
Balance as at Jan. 1, 2019	1	2	-	3	1	29
Additions	-	-	-	2	-	-
Reversals	-1	-1	-	-2	-	-
Balance as at Jun. 30, 2019	**-**	**1**	**-**	**3**	**1**	**29**

€ million	Loss allowances for investments held by insurance companies			Total
	Stage 1	Stage 2	Stage 3	
Balance as at Jan. 1, 2018	4	-	-	52
Additions	2	-	-	4
Reversals	-2	-	-	-9
Other changes	-	-	-	2
Balance as at Jun. 30, 2018	**4**	**-**	**-**	**49**
Balance as at Jan. 1, 2019	4	-	-	40
Additions	3	-	-	5
Reversals	-2	-	-	-6
Balance as at Jun. 30, 2019	**5**	**-**	**-**	**39**

D Financial instruments and fair value disclosures

>> 46 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 instruments (in accordance with IFRS 9):

€ million	Jun. 30, 2019 Carrying amount	Jun. 30, 2019 Fair value	Dec. 31, 2018 Carrying amount	Dec. 31, 2018 Fair value
FINANCIAL ASSETS MEASURED AT FAIR VALUE	**180,117**	**180,117**	**159,271**	**159,271**
Financial assets measured at fair value through profit or loss	**85,445**	**85,445**	**73,091**	**73,091**
Financial assets mandatorily measured at fair value through profit or loss	***75,476***	***75,476***	***63,324***	***63,324***
Loans and advances to banks	-	-	1	1
Loans and advances to customers	248	248	234	234
Hedging instruments (positive fair values)	259	259	883	883
Financial assets held for trading	48,134	48,134	37,942	37,942
Investments	2,223	2,223	2,219	2,219
Investments held by insurance companies	24,612	24,612	22,045[1]	22,045[1]
Financial assets designated as at fair value through profit or loss	***9,969***	***9,969***	***9,767***	***9,767***
Loans and advances to banks	2,006	2,006	1,874	1,874
Loans and advances to customers	1,610	1,610	1,629	1,629
Investments	6,353	6,353	6,264	6,264
Financial assets measured at fair value through other comprehensive income	**94,336**	**94,336**	**85,764**	**85,764**
Financial assets mandatorily measured at fair value through other comprehensive income	***88,128***	***88,128***	***80,275***	***80,275***
Loans and advances to banks	179	179	230	230
Loans and advances to customers	3,853	3,853	3,716	3,716
Investments	22,731	22,731	19,774	19,774
Investments held by insurance companies	61,365	61,365	56,555	56,555
Financial assets designated as at fair value through other comprehensive income	***6,208***	***6,208***	***5,489***	***5,489***
Investments	655	655	603	603
Investments held by insurance companies	5,553	5,553	4,886	4,886
Non-current assets and disposal groups classified as held for sale	**336**	**336**	**416**	**416**
FINANCIAL ASSETS MEASURED AT AMORTIZED COST	**368,133**	**377,628**	**346,553**	**352,762**
Cash and cash equivalents	66,014	66,014	51,459	51,459
Loans and advances to banks	90,756	94,439	89,510	91,398
Loans and advances to customers	172,067	176,102	164,628	167,011
Investments	17,664	18,686	18,570	19,382
Investments held by insurance companies	14,255	16,448	14,218	15,744
Other assets	1,730	1,732	1,674	1,676
Fair value changes of the hedged items in portfolio hedges of interest-rate risk	1,440		533	
Non-current assets and disposal groups classified as held for sale	**4,207**	**4,207**	**5,961**	**6,092**
FINANCE LEASES	**1,773**	**1,780**	**2,000**	**2,005**
Loans and advances to customers	1,773	1,780	2,000	2,005

1 Amount restated (see note 2).

€ million	Jun. 30, 2019 Carrying amount	Jun. 30, 2019 Fair value	Dec. 31, 2018 Carrying amount	Dec. 31, 2018 Fair value
FINANCIAL LIABILITIES MEASURED AT FAIR VALUE	**95,155**	**95,155**	**81,126**	**81,126**
Financial liabilities mandatorily measured at fair value through profit or loss	**62,290**	**62,290**	**47,511**	**47,511**
Hedging instruments (negative fair values)	995	995	2,516	2,516
Financial liabilities held for trading	61,281	61,281	44,979	44,979
Other liabilities	14	14	16	16
Financial liabilities designated as at fair value through profit or loss	**32,864**	**32,864**	**33,607**	**33,607**
Deposits from banks	5,190	5,190	5,767	5,767
Deposits from customers	10,539	10,539	10,697	10,697
Debt certificates issued including bonds	16,758	16,758	16,763	16,763
Subordinated capital	377	377	380	380
Liabilities included in disposal groups classified as held for sale	**1**	**1**	**8**	**8**
FINANCIAL LIABILITIES MEASURED AT AMORTIZED COST	**327,314**	**334,169**	**310,201**	**313,569**
Deposits from banks	141,196	145,104	136,719	138,765
Deposits from customers	126,591	128,698	121,851	123,031
Debt certificates issued including bonds	55,565	56,423	47,146	47,299
Other liabilities	1,543	1,545	1,629	1,630
Subordinated capital	2,243	2,380	2,517	2,616
Fair value changes of the hedged items in portfolio hedges of interest-rate risk	157		134	
Liabilities included in disposal groups classified as held for sale	**19**	**19**	**205**	**228**
LEASES	**373**	**373**		
Other liabilities	373	373		
FINANCIAL GUARANTEE CONTRACTS AND LOAN COMMITMENTS	**166**	**166**	**162**	**162**
Financial guarantee contracts	**106**	**106**	**113**	**113**
Provisions	106	106	113	113
Loan commitments	**60**	**60**	**49**	**49**
Provisions	60	60	49	49

Given the complex structure of home savings contracts and the multitude of scales of rates and charges, there is currently no suitable method for calculating the fair value of an individual contract as at the balance sheet date. Consequently, the fair value cannot be determined using either comparable market prices or suitable option pricing models. The fair values of financial assets and financial liabilities resulting from building society operations are therefore shown in simplified form at their carrying amounts. On the basis of the models used for building society management, which comprise both collective and non-collective business including deposits, the overall amount for building society operations during the reporting period was positive.

The carrying amounts and fair values reported under investments held by insurance companies relate to receivables and fixed-income securities matched as cover for long-term insurance contract obligations as part of insurance operations. Because these instruments are normally held over their entire maturity, interest-rate-related changes in fair value during the maturity of the financial assets balance each other out in full. The fair values of the investments held by insurance companies comprise both the proportion of the fair values that is attributable to the policyholders and the proportion attributable to the shareholders of the DZ BANK Group. The fair value attributable to the shareholders of the DZ BANK Group of investments held by insurance companies measured at amortized cost was €14,953 million (December 31, 2018: €14,771 million).

>>47 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:

	Level 1		Level 2		Level 3	
€ million	Jun. 30, 2019	Dec. 31, 2018	Jun. 30, 2019	Dec. 31, 2018	Jun. 30, 2019	Dec. 31, 2018
Assets	**80,273**	**70,070**	**91,555**	**81,558**	**8,289**	**8,310**
Loans and advances to banks	-	-	2,185	2,105	-	-
Loans and advances to customers	-	-	4,800	4,651	911	928
Hedging instruments (positive fair values)	-	-	259	883	-	-
Financial assets held for trading	1,566	1,351	46,095	36,037	473	554
Investments	19,495	14,829	10,298	11,852	2,169	2,179
Investments held by insurance companies	59,212	53,889	27,843	25,336	4,475	4,261
Non-current assets and disposal groups classified as held for sale	-	1	75	694	261	388
of which: non-recurring measurement	-	-	-	667	-	-
Liabilities	**4,473**	**3,873**	**102,283**	**87,348**	**1,269**	**1,524**
Deposits from banks	-	-	5,190	5,767	-	-
Deposits from customers	-	-	10,539	10,697	-	-
Debt certificates issued including bonds	3,367	2,488	12,864	13,710	527	565
Hedging instruments (negative fair values)	-	-	995	2,516	-	-
Financial liabilities held for trading	1,100	1,376	59,491	42,696	690	907
Financial liabilities arising from unit-linked insurance products	-	-	12,870	11,619	-	-
Other liabilities	6	9	-	-	8	7
Subordinated capital	-	-	333	335	44	45
Liabilities included in disposal groups classified as held for sale	-	-	1	8	-	-

The investments held by insurance companies measured at fair value include assets related to unit-linked contracts. These are offset on the equity and liabilities side of the balance sheet by financial liabilities measured at fair value arising from unit-linked insurance products, which consist of the reserve for unit-linked insurance contracts and liabilities from capitalization transactions 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:

	Transfers from Level 1 to Level 2		Transfers from Level 2 to Level 1	
€ million	**Jan. 1 – Jun. 30, 2019**	Jan. 1 – Jun. 30, 2018	**Jan. 1 – Jun. 30, 2019**	Jan. 1 – Jun. 30, 2018
Financial assets measured at fair value	**496**	**87**	**3,987**	**1,594**
Financial assets held for trading	24	2	-	64
Investments	-	-	3,710	1,210
Investments held by insurance companies	472	85	277	320
Financial liabilities measured at fair value	**1**	**2**	**-**	**4**
Financial liabilities held for trading	1	2	-	4

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 significant valuation input 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.

The DZ BANK Group uses prices in active markets (provided these prices are available) for the fair value measurement of loans and advances as well as unstructured bonds. Otherwise, it mainly uses the DCF method. 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. Debt instruments held 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 significant 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 notional amount of the debt instrument in question provides the best evidence of fair value.

The fair value measurements of shares and other variable-yield securities and of long-term equity investments accounted for in accordance with IFRS 9 are determined by applying income capitalization approaches and observing transaction prices. The best indicator of fair value is deemed to be 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 measurements of investment fund units are 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 long-term equity 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 measurements are 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. 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. This includes, 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.

The following table shows the valuation techniques, the unobservable inputs, and the spreads of the unobservable inputs used for the fair value measurements at Level 3 of the fair value hierarchy as at June 30, 2019.

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Unobservable inputs	Spread of unobservable inputs (%)
Loans and advances to customers	Loans	643	DCF method	BVAL price adjustment	1.8 to 4.0
		63	DCF method	Credit spread	0.1 to 8.3
	Profit-participation certificates	49	DCF method	Internal credit ratings	3.8 to 17.2
	Shareholders' loans	97	DCF method	Internal credit ratings	3.8 to 17.2
	Receivables arising from silent partnerships	59	DCF method	Internal credit ratings	3.8 to 17.2
Financial assets held for trading	ABSs	4	DCF method	Credit spread	6.1
	Equity/commodity basket products	6	Local volatility model	Correlation of the risk factors considered	9.9 to 85.3
	Loans and advances to issuers in default	6	DCF method	Recovery rate	-
	Collateralized loan obligations	50	Gaussian copula model	Liquidity spread	0.7 to 4.1
	Bearer securities	270	DCF method	BVAL price adjustment	-1.3 to 0.7
	Registered securities	88	DCF method	BVAL price adjustment	-1.8 to 4.0
	Option in connection with acquisition of long-term equity investments	49	Black-Scholes model	Earnings indicator	-
Investments	ABSs	28	DCF method	Credit spread	0.4 to 5.4
	Other variable-yield securities	11	DCF method	Assumptions for measurement of risk parameters	9.7 to 15.2
	Investments in subsidiaries	30	DCF method	Assumptions for measurement of risk parameters	9.7 to 15.2
		285	Income capitalization approach, net asset value method	Future income	-
		1	Liquidation value	-	-
	Collateralized loan obligations	7	Gaussian copula model	Liquidity spread	0.0 to 1.5
	Bearer securities	276	DCF method	BVAL price adjustment	-2.1 to 129.7
	Investment fund units	19	Net asset value	-	-
	Mortgage-backed securities	350	DCF method	Duration	-
		58	DCF method	Recovery rate	15.8 to 94.9
	Other shareholdings	69	DCF method	Capitalization rate, growth factor	1.0 to 11.4
		509	Income capitalization approach, net asset value method	Future income	-
	VR Circle	526	DCF method	Multiple-year default probabilities	0 to 100

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Unobservable inputs	Spread of unobservable inputs (%)
Investments held by insurance companies	ABSs	711	Third-party pricing information	-	-
	Investments in subsidiaries, associates, and joint ventures, real estate funds, profit-participation certificates, and other long-term equity investments	2,285	Net asset value	-	-
	Investments in subsidiaries, associates, and joint ventures, other long-term equity investments, and shares in cooperative banks	294	Income capitalization approach	Future income	7.0 to 11.6
	Fixed-income securities, convertible bonds, shares, and shares in cooperative banks	764	Third-party pricing information	-	-
	Profit-participation certificates and promissory notes	412	DCF method	Credit spread	5.3 to 7.6
	Derivatives (positive fair values)	3	Third-party pricing information	-	-
	Other shareholdings	6	Approximation	-	-
Non-current assets and disposal groups classified as held for sale	Loans	261	DCF method	Credit spread	0.0 to 8.3
Debt certificates issued including bonds	VR Circle	527	DCF method	Multiple-year default probabilities	0 to 100
Financial liabilities held for trading	Equity/commodity basket products	651	Local volatility model	Correlation of the risk factors considered	9.9 to 85.3
	Option in connection with acquisition of long-term equity investments	8	Black-Scholes model	Earnings indicators	-
	Products with commodity volatility derived from comparable instruments	31	Local volatility model	Volatility	6.1 to 59.5
Other liabilities	Incentivization commitment in connection with acquisition of long-term equity investments	5	Expected value	-	-
	Derivatives (negative fair values)	3	Third-party pricing information	-	-
Subordinated capital	Loans	44	DCF method	Credit spread	0.3 to 3.6

The following table shows the valuation techniques, the unobservable inputs, and the spreads of the unobservable inputs used for the fair value measurements at Level 3 of the fair value hierarchy as at December 31, 2018.

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Unobservable inputs	Spread of unobservable inputs (%)
Loans and advances to customers	Loans	670	DCF method	BVAL price adjustment	-1.4 to 1.9
		56	DCF method	Credit spread	0.0 to 8.3
	Profit-participation certificates	57	DCF method	Internal credit ratings	5.2 to 16.7
	Shareholders' loans	89	DCF method	Internal credit ratings	5.2 to 16.7
	Receivables arising from silent partnerships	56	DCF method	Internal credit ratings	5.2 to 16.7
Financial assets held for trading	ABSs	4	DCF method	Credit spread	0.6 to 5.3
	Equity/commodity basket products	5	Local volatility model	Correlation of the risk factors considered	11.9 to 85.3
	Loans and advances to issuers in default	5	DCF method	Recovery rate	-
	Collateralized loan obligations	141	Gaussian copula model	Liquidity spread	0.0 to 4.4
	Bearer securities	335	DCF method	BVAL price adjustment	-1.3 to 0.7
	Registered securities	15	DCF method	BVAL price adjustment	-1.4 to 1.9
	Option in connection with acquisition of long-term equity investments	49	Black-Scholes model	Earnings indicator	-
Investments	ABSs	31	DCF method	Credit spread	0.6 to 5.3
	Other variable-yield securities	10	DCF method	Assumptions for measurement of risk parameters	9.7 to 13.4
	Investments in subsidiaries	22	DCF method	Assumptions for measurement of risk parameters	9.7 to 13.4
		277	Income capitalization approach, net asset value method	Future income	-
		1	Liquidation value	-	-
	Collateralized loan obligations	7	Gaussian copula model	Liquidity spread	0.0 to 4.4
	Bearer securities	293	DCF method	BVAL price adjustment	-1.3 to 125.0
	Investment fund units	21	Net asset value	-	-
	Mortgage-backed securities	367	DCF method	Duration	-
		62	DCF method	Recovery rate	15.8 to 95.3
	Other shareholdings	57	DCF method	Capitalization rate, growth factor	0.0 to 11.2
		14	DCF method	Assumptions for measurement of risk parameters	9.7 to 13.4
		455	Income capitalization approach, net asset value method	Future income	-
	VR Circle	562	DCF method	Multiple-year default probabilities	0 to 100

Class according to IFRS 13	Assets/liabilities	Fair value (€ million)	Valuation technique	Unobservable inputs	Spread of unobservable inputs (%)
Investments held by insurance companies	ABSs	621	Third-party pricing information	-	-
	Investments in subsidiaries, associates, and joint ventures, real estate funds, profit-participation certificates, and other long-term equity investments	2,128	Net asset value	-	-
	Investments in subsidiaries, associates, and joint ventures, other long-term equity investments, and shares in cooperative banks	296	Income capitalization approach	Future income	6.9 to 11.6
	Fixed-income securities, convertible bonds, shares, and shares in cooperative banks	804	Third-party pricing information	-	-
	Profit-participation certificates and promissory notes	403	DCF method	Credit spread	5.3 to 7.5
	Derivatives (positive fair values)	3	Third-party pricing information	-	-
	Other shareholdings	6	Approximation	-	-
Non-current assets and disposal groups classified as held for sale	Loans	378	DCF method	Credit spread	0.0 to 8.3
	Other shareholdings	10	Income capitalization approach, net asset value method	Future income	-
Debt certificates issued including bonds	VR Circle	565	DCF method	Multiple-year default probabilities	0 to 100
Financial liabilities held for trading	Equity/commodity basket products	863	Local volatility model	Correlation of the risk factors considered	11.9 to 85.3
	Option in connection with acquisition of long-term equity investments	8	Black-Scholes model	Earnings indicators	-
	Products with commodity volatility derived from comparable instruments	36	Local volatility model	Earnings indicators	7.0 to 64.2
Other liabilities	Incentivization commitment in connection with acquisition of long-term equity investments	5	Expected value	-	-
	Derivatives (negative fair values)	2	Third-party pricing information	-	-
Subordinated capital	Loans	45	DCF method	Credit spread	0.0 to 3.6

Fair value measurements within Level 3 of the fair value hierarchy

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

€ million	Loans and advances to customers	Financial assets held for trading	Investments	Investments held by insurance companies	Non-current assets and disposal groups classified as held for sale
Balance as at Jan. 1, 2018	1,522	660	2,255	3,430	50
Additions (purchases)	8	40	59	832	1
Transfers	-	16	252	-27	-
from Level 3 to Levels 1 and 2	-	-2	-91	-95	-
from Levels 1 and 2 to Level 3	-	18	343	68	-
Disposals (sales)	-125	-164	-380	-268	-
Changes resulting from measurement at fair value	-11	-9	175	74	-
through profit or loss	-7	-9	37	76	-
through other comprehensive income	-4	-	138	-2	-
Other changes	3	3	2	-	10
Balance as at Jun. 30, 2018	**1,397**	**546**	**2,363**	**4,041**	**61**
Balance as at Jan. 1, 2019	928	554	2,179	4,261	388
Additions (purchases)	30	-	138	482	122
Transfers	-36	-34	-143	-74	-
from Level 3 to Levels 1 and 2	-36	-51	-157	-109	-
from Levels 1 and 2 to Level 3	-	17	14	35	-
Disposals (sales)	-26	-53	-80	-255	-247
Changes resulting from measurement at fair value	6	3	72	61	-
through profit or loss	-6	3	23	17	-
through other comprehensive income	12	-	49	44	-
Other changes	9	3	3	-	-2
Balance as at Jun. 30, 2019	**911**	**473**	**2,169**	**4,475**	**261**

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

€ million	Debt certificates issued including bonds	Financial liabilities held for trading	Other liabilities	Sub-ordinated capital
Balance as at Jan. 1, 2018	543	1,078	15	254
Additions (issues)	37	22	-	-
Transfers	-	-195	-	-
from Level 3 to Level 2	-	-213	-	-
from Level 2 to Level 3	-	18	-	-
Disposals (settlements)	-20	-	-8	-195
Changes resulting from measurement at fair value through profit or loss	-25	-11	-4	2
Other changes	-	6	-	-1
Balance as at Jun. 30, 2018	**535**	**900**	**3**	**60**
Balance as at Jan. 1, 2019	565	907	7	45
Additions (issues)	-	2	-	-
Transfers	-	-242	-	-
from Level 3 to Level 2	-	-243	-	-
from Level 2 to Level 3	-	1	-	-
Disposals (settlements)	-26	-	-	-3
Changes resulting from measurement at fair value	-12	22	1	3
through profit or loss	-12	22	1	-1
through other comprehensive income	-	-	-	4
Other changes	-	1	-	-1
Balance as at Jun. 30, 2019	**527**	**690**	**8**	**44**

As part of the processes for fair value measurement, the DZ BANK Group reviews whether the valuation methods used for the measurement are typical and whether the valuation inputs used in the valuation methods are observable in the market. This review takes place at every balance sheet date, i.e. at least every 6 months. On the basis of this review, the fair value measurements are assigned to the levels of the fair value hierarchy. 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 during the reporting period are largely attributable to a revised estimate of the market observability of the valuation inputs 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 inputs 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 gain of €67 million during the reporting period (first half of 2018: gain of €47 million). The gains or losses are included in the line items net interest income, gains and losses on trading activities, gains and losses on investments, 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.

For the fair values of investments held by insurance companies reported within Level 3, a worsening in the credit rating or a rise in the interest rate of 1 percent would lead to the recognition of a €34 million loss in profit or loss (December 31, 2018: loss of €32 million) and a loss of €1 million under other comprehensive income/loss (December 31, 2018: loss of €1 million). In the case of the fair values of loans and advances to customers, the same change would lead to the recognition of a €11 million loss in profit or loss (December 31, 2018: loss of €27 million). For the fair values of investments, there would be a €28 million loss under other comprehensive income/loss (December 31, 2018: loss of €27 million) and a €23 million loss in profit or loss (December 31, 2018: loss of €23 million). Within financial assets held for trading, the changes would give rise to a loss of €11 million recognized in profit or loss (December 31, 2018: loss of €11 million); however, changes within financial liabilities held for trading would result in a gain of €2 million recognized in profit or loss (December 31, 2018: gain of €2 million).

The fair values of bonds without liquid markets that are reported within financial assets held for trading, investments, and loans and advances to customers are given an individual adjustment spread or are measured using Bloomberg Valuation Service prices, which are observable in the market. All other things being equal, a rise of 1 percent in the relevant measurement assumptions would lead to the recognition of a loss of €16 million in profit or loss (December 31, 2018: loss of €7 million) and a loss of €22 million in other comprehensive income/loss (December 31, 2018: loss of €22 million). Historical spreads are used for bonds recognized under subordinated capital whose spread components are no longer observable in the market. All other things being equal, an increase of 1 percent in the spread would lead to a €3 million increase in fair value that would be recognized in profit or loss (December 31, 2018: increase of €4 million).

An alternative assumption about the credit spreads used could lead to a significant change in the fair values of some of the ABSs reported under financial assets held for trading and under investments. All other things being equal, a rise of 1 percent in these credit spreads would lead to the recognition of a loss of €2 million in profit or loss (December 31, 2018: loss of €2 million).

Measurement of some of the commodities reported under financial assets and financial liabilities held for trading is based on the benchmark volatility of a comparable underlying. All other things being equal, a 1 percent rise in volatility would lead to the recognition of a gain of €3 million in profit or loss (December 31, 2018: gain of €2 million).

An alternative assumption about the liquidity spreads used could lead to a significant change in respect of collateralized loan obligations reported under investments and under financial assets held for trading. All other things being equal, a rise in the liquidity spread assumptions by 1 percent would lead to a €3 million decrease in the fair values of these financial assets that would be recognized in profit or loss (December 31, 2018: decrease of €7 million).

Sensitivity analysis is used to calculate the aforementioned changes in the fair value measurements. Non-performing exposures and strategically held investments in subsidiaries and other shareholdings whose fair values are calculated using an income capitalization approach are not included in the sensitivity analysis.

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.

>> 48 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, 2019	Jan. 1 – Jun. 30, 2018
Gains and losses on fair value hedges	**1**	**-4**
Gains and losses on hedging instruments	-131	15
Gains and losses on hedged items	132	-19
Gains and losses on portfolio fair value hedges	**1**	**-6**
Gains and losses on hedging instruments	-1,337	-79
Gains and losses on hedged items	1,338	73
Gains and losses on cash flow hedges	**-**	**-1**
Gains and losses on cash flow hedges of existing hedged items	-	-1
Total	**2**	**-11**

>> 49 Nature and extent of risks arising from financial instruments and insurance contracts

With the exception of the qualitative and quantitative disclosures pursuant to IFRS 7.35-36, selected disclosures on the nature and extent of risks arising from financial instruments (IFRS 7.31-42) and insurance contracts (IFRS 4.38-39A) are included in the opportunity and risk report within the interim group management report. The selected disclosures pursuant to IFRS 7.35-36 can be found in the notes to the interim 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, and on other assets. The loss allowance 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
– Debt instruments held as financial assets measured at fair value through other comprehensive income.

The loss allowance 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 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, 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 impaired if one or more events have occurred with an adverse impact on the estimated future cash flows of these financial assets or they are deemed to be in default pursuant to article 178 of the Capital Requirements Regulation (CRR). The definition therein is the same as the DZ BANK Group's definition of default. Here too, loss allowances are recognized in the amount of the lifetime expected credit losses. Interest income is calculated on the amortized cost after loss allowances using the effective interest method.
- POCI assets: Financial assets that are already deemed impaired upon initial recognition are not assigned to the 3-stage model and are reported separately. Credit-impaired financial assets are initially recognized at 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, but particularly on every balance sheet date. 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. If analysis based on one year does not produce a significantly different outcome, the change in the expected credit risk on a one-year basis is used in some cases for reasons of simplification. In both scenarios, macroeconomic information is also factored in. To this end, 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 relative to the portfolio's past migrations of default probability. Internal risk measurement systems, external credit ratings, and risk forecasts are also used to assess the credit risk of financial assets. This test has been extended to look at qualitative criteria that increase credit risk unless these criteria have already been incorporated into the probability of default. In general, allocation to stage 2 is assumed no later than when payments become 30 days past due. Depending on the business line, either this criterion has been defined as an additional backstop or the past-due period is already factored into the credit rating and scoring system. As a rule, however, financial assets are allocated to stage 2 well before payments become 30 days past due. Exceptions are only made in individual cases if it has been shown that there is no significant increase in credit risk, despite payments being 30 days past due.

Securities with low credit risk are not tested to ascertain whether credit risk has increased significantly. Investment-grade securities are thus assigned to stage 1. This exemption does not apply to loans and advances.

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. In the case of a transfer back from stage 3, the default status is only revoked after the necessary period of good conduct in accordance with the regulatory definition.

Expected losses are calculated as the probability-weighted present value of the expected defaults over the estimated lifetime from default events within the next 12 months for assets assigned to stage 1 of the impairment model and from default events over the entire residual life for assets assigned to stages 2 and 3. The expected losses are discounted with their original effective interest rate. This 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 probability of default incorporates both historical and forward-looking default information. This is applied, for example when loss allowances are determined within stage 2, in the form of shifts in the default probabilities calculated using statistical means. The calculation of the expected loss for specific exposures in stage 3 does not use this type of fundamental parameter-based approach but rather draws on individual expert appraisals of the achievable cash flows and probability-weighted scenarios at individual transaction level.

Loss histories, adjusted to reflect forecast future defaults, serve as the basis for determining expected losses. A macroeconomic scenario based on empirical estimates is also factored in. This scenario specifically looks at future trends in the labor market, interest rates in the money market, changes in GDP, inflation, and commercial real estate prices. The methods and assumptions, including the forecasts, are validated regularly.

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

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 as directly recognized impairment losses 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 recognized for insignificant amounts.

If substantial modifications are made to the contract for a financial asset, the asset is derecognized and then recognized as a new asset. The POCI asset rules apply to impaired assets (stage 3). If contractual modifications for a financial asset do not have a substantial impact, the asset is reviewed to ascertain whether credit risk has increased significantly since initial recognition.

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

€ million	Stage 1		Stage 2		Stage 3	
	Loss allowances	Fair value	Loss allowances	Fair value	Loss allowances	Fair value
Balance as at Jan. 1, 2018	9	83,114	10	402	33	26
Addition/increase in loan drawdowns	2	11,743	-	-	-	-
Change to financial assets due to transfer between stages	-	22	-	-22	-	-
Transfer from stage 2	-	22	-	-22	-	-
Derecognitions and repayments	-3	-13,316	-	-25	-	-1
Changes to models/risk parameters	-	-	-4	-	-	-
Additions	2	-	-	-	-	-
Reversals	-2	-	-4	-	-	-
Amortization, fair value changes, and other changes in measurement	-	-1,014	-	5	-	-
Exchange differences and other changes	-	52	-	-	-	-
Deferred taxes	-	-	2	-	-	-
Balance as at Jun. 30, 2018	**8**	**80,601**	**8**	**360**	**33**	**25**
Balance as at Jan. 1, 2019	8	80,068	3	182	29	25
Addition/increase in loan drawdowns	2	11,703	-	-	-	-
Change to financial assets due to transfer between stages	-	5	-	-5	-	-
Transfer from stage 2	-	5	-	-5	-	-
Derecognitions and repayments	-3	-8,624	-	-33	-	-2
Changes to models/risk parameters	1	-	-1	-	-	-
Additions	3	-	-	-	-	-
Reversals	-2	-	-1	-	-	-
Amortization, fair value changes, and other changes in measurement	-	4,805	-	4	-	-
Balance as at Jun. 30, 2019	**8**	**87,957**	**2**	**148**	**29**	**23**

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, 2018	233	315,853	212	12,364	2,449 [1]	5,422 [1]	10	32
Addition/increase in loan drawdowns	66	5,883,690	10	8,220 [1]	225	1,457	3	27
Change to financial assets due to transfer between stages	81	1,041	-110	-1,123	35	86	-	-
Transfer from stage 1	-23	-3,378	22	3,334	1	44	-	-
Transfer from stage 2	87	4,260	-147	-4,514	61	259	-	-
Transfer from stage 3	17	159	15	57	-27	-217	-	-
Use of loss allowances/directly recognized impairment losses on gross carrying amounts	-	-	-1	-	-347 [1]	-12	-	-1
Derecognitions and repayments	-46	-5,850,280 [1]	-29	-10,235 [1]	-287	-1,678 [1]	-5	-38
Changes to models/risk parameters	-101	-	115	-	83	-	-	-
Additions	55	-	179	-	279	-	2	-
Reversals	-156	-	-64	-	-196	-	-2	-
Amortization, fair value changes, and other changes in measurement	-	-317	-	56	-	10	-	-
Positive change in fair value of POCI assets								8
Exchange differences and other changes	1	-139	-	-1,335	90 [1]	-288 [1]	-	1
Balance as at Jun. 30, 2018	**234**	**349,848**	**197**	**7,947**	**2,248**	**4,997**	**8**	**29**
Balance as at Jan. 1, 2019	231	330,226	196	7,864	1,972 [1]	4,349 [1]	3	22
Addition/increase in loan drawdowns	80	5,737,169	12	4,270	165	952	-	3
Change to financial assets due to transfer between stages	70	-451	-108	43	38	408	-	-
Transfer from stage 1	-26	-2,297	24	2,139	2	158	-	-
Transfer from stage 2	88	1,812	-149	-2,284	61	472	-	-
Transfer from stage 3	8	34	17	188	-25	-222	-	-
Use of loss allowances/directly recognized impairment losses on gross carrying amounts	-	-	-	-	-237	-14	-	-1
Derecognitions and repayments	-61	-5,713,524	-26	-4,253	-113	-1,145	-	-13
Changes to models/risk parameters	-86	-	131	-	23	-	-2	-
Additions	69	-	199	-	267	-	2	-
Reversals	-155	-	-68	-	-244	-	-4	-
Amortization, fair value changes, and other changes in measurement	-	-147	-	13	-	-115	-	-
Positive change in fair value of POCI assets								10
Exchange differences and other changes	-	-500	-	-101	34	-257	-	-
Balance as at Jun. 30, 2019	**234**	**352,773**	**205**	**7,836**	**1,882**	**4,178**	**1**	**21**

1 Amount restated (see note 2).

The undiscounted expected credit losses on purchased or originated credit-impaired assets that were recognized for the first time during the reporting period totaled €77 million (first half of 2018: €93 million).

Non-current assets and disposal groups classified as held for sale that were previously recognized as financial assets measured at amortized cost

	Stage 1		Stage 2		Stage 3	
€ million	Loss allowances	Gross carrying amount	Loss allowances	Gross carrying amount	Loss allowances	Gross carrying amount
Balance as at Jan. 1, 2019	5	5,853	-	105	13	40
Addition/increase in loan drawdowns	-	1,174	-	-	-	-
Change to financial assets due to transfer between stages	-1	-195	1	188	-	7
Transfer from stage 1	-1	-210	1	210	-	-
Transfer from stage 2	-	15	-	-22	-	7
Derecognitions and repayments	-1	-2,923	-	-15	-7	-3
Changes to models/risk parameters	3	-	4	-	1	-
Additions	4	-	4	-	3	-
Reversals	-1	-	-	-	-2	-
Amortization, fair value changes, and other changes in measurement	-	70	-	1	-	-
Exchange differences and other changes	-1	85	-	8	2	2
Changes in scope of consolidation	-	-168	-	-3	-	-
Balance as at Jun. 30, 2019	**5**	**3,896**	**5**	**284**	**9**	**46**

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, 2018	6	2,595	10	304	18	51
Addition/increase in loan drawdowns	5	586	8	40	15	3
Change to financial assets due to transfer between stages	10	19	-2	-49	-14	21
Transfer from stage 2	1	33	-2	-48	-	6
Transfer from stage 3	9	-14	-	-1	-14	15
Use of loss allowances/directly recognized impairment losses on gross carrying amounts	-	-	-	-	-1	-
Derecognitions and repayments	-16	-612	-7	-65	-8	-41
Changes to models/risk parameters	-	-	-1	-	-	-
Reversals	-	-	-1	-	-	-
Exchange differences and other changes	-	-	3	-	-1	-
Balance as at Jun. 30, 2018	**5**	**2,588**	**11**	**230**	**9**	**34**
Balance as at Jan. 1, 2019	4	1,811	8	186	8	23
Addition/increase in loan drawdowns	1	158	7	2	4	1
Change to financial assets due to transfer between stages	4	-28	-2	16	-2	12
Transfer from stage 1	-	-89	-	84	-	5
Transfer from stage 2	3	56	-4	-72	1	16
Transfer from stage 3	1	5	2	4	-3	-9
Use of loss allowances/directly recognized impairment losses on gross carrying amounts	-	-	-3	-	-	-
Derecognitions and repayments	-4	-343	-4	-31	-4	-16
Exchange differences and other changes	-	-	-	-	1	-
Balance as at Jun. 30, 2019	**5**	**1,598**	**6**	**173**	**7**	**20**

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
Balance as at Jan. 1, 2018	38	55,702	8	627	147	469
Addition/increase in loan drawdowns	43	26,054	3	317	9	16
Change to financial guarantee contracts and loan commitments due to transfer between stages	-	-382	6	371	-6	11
Transfer from stage 1	-5	-536	5	527	-	9
Transfer from stage 2	4	150	-4	-159	-	9
Transfer from stage 3	1	4	5	3	-6	-7
Derecognitions and repayments	-18	-19,800	-9	-618	-46	-271
Changes to models/risk parameters	-31	-	-	-	5	-
Additions	8	-	9	-	19	-
Reversals	-39	-	-9	-	-14	-
Amortization, fair value changes, and other changes in measurement	-	59	-	-	-	-
Exchange differences and other changes	1	-33	-	3	2	2
Balance as at Jun. 30, 2018	**33**	**61,600**	**8**	**700**	**111**	**227**
Balance as at Jan. 1, 2019	35	60,787	9	834	118	250
Addition/increase in loan drawdowns	57	28,480	2	334	3	66
Change to financial guarantee contracts and loan commitments due to transfer between stages	1	-94	-4	45	3	49
Transfer from stage 1	-1	-356	1	344	-	12
Transfer from stage 2	1	257	-5	-299	4	42
Transfer from stage 3	1	5	-	-	-1	-5
Derecognitions and repayments	-24	-28,361	-4	-448	-10	-103
Changes to models/risk parameters	-28	-	4	-	3	-
Additions	14	-	6	-	23	-
Reversals	-42	-	-2	-	-20	-
Amortization, fair value changes, and other changes in measurement	-	12	-	-	-	-
Exchange differences and other changes	1	176	-	1	-	1
Balance as at Jun. 30, 2019	**42**	**61,000**	**7**	**766**	**117**	**263**

Liabilities included in disposal groups classified as held for sale that were previously recognized as financial guarantee contracts and loan commitments

	Stage 1	
€ million	Loss allowances	Nominal amount
Balance as at Jan. 1, 2019	-	549
Addition/increase in loan drawdowns	-	63
Derecognitions and repayments	-	-259
Changes to models/risk parameters	1	-
Additions	1	-
Exchange differences and other changes	-	-133
Balance as at Jun. 30, 2019	**1**	**220**

>> 50 Exposures to countries particularly affected by the sovereign debt crisis

The table below shows the carrying amounts of the DZ BANK Group's exposures to bonds issued by governments and public authorities in countries particularly affected by the sovereign debt crisis, broken down into the categories applied to financial instruments under IFRS 9.

	Jun. 30, 2019		Dec. 31, 2018	
€ million	Carrying amount	Fair value	Carrying amount	Fair value
Portugal	**843**	**861**	**718**	**731**
Financial assets measured at fair value through profit or loss	439	439	347	347
Financial assets measured at fair value through other comprehensive income	354	354	322	322
Financial assets measured at amortized cost	50	68	49	62
Italy	**4,807**	**4,870**	**4,937**	**4,982**
Financial assets measured at fair value through profit or loss	1,824	1,824	1,734	1,734
Financial assets measured at fair value through other comprehensive income	2,463	2,463	2,683	2,683
Financial assets measured at amortized cost	520	583	520	565
Spain	**2,139**	**2,181**	**1,925**	**1,942**
Financial assets measured at fair value through profit or loss	1,260	1,260	1,122	1,122
Financial assets measured at fair value through other comprehensive income	639	639	563	563
Financial assets measured at amortized cost	240	282	240	257
Total	**7,789**	**7,912**	**7,580**	**7,655**

Bonds issued by countries particularly affected by the sovereign debt crisis and held as part of the insurance business are only recognized in the proportion attributable to the shareholders of the DZ BANK Group.

Fair value hierarchy

The recurring fair value measurements as measured and recognized on the balance sheet are assigned to the levels of the fair value hierarchy as follows:

	Level 1		Level 2		Level 3	
€ million	Jun. 30, 2019	Dec. 31, 2018	Jun. 30, 2019	Dec. 31, 2018	Jun. 30, 2019	Dec. 31, 2018
Portugal	**793**	669	**-**	-	**-**	-
Financial assets measured at fair value through profit or loss	439	347	-	-	-	-
Financial assets measured at fair value through other comprehensive income	354	322	-	-	-	-
Italy	**4,233**	4,183	**25**	211	**29**	23
Financial assets measured at fair value through profit or loss	1,824	1,715	-	19	-	-
Financial assets measured at fair value through other comprehensive income	2,409	2,468	25	192	29	23
Spain	**1,837**	1,347	**-**	282	**62**	56
Financial assets measured at fair value through profit or loss	1,198	902	-	164	62	56
Financial assets measured at fair value through other comprehensive income	639	445	-	118	-	-
Total	**6,863**	6,199	**25**	493	**91**	79

Maturity analysis

AS AT JUNE 30, 2019

€ million	≤ 1 month	> 1 month – 3 months	> 3 months – 1 year	> 1 year – 5 years	> 5 years
Portugal	-	-	25	120	800
Italy	11	66	191	1,636	4,181
Spain	10	6	55	591	1,919
Total	21	72	271	2,347	6,900

AS AT DECEMBER 31, 2018

€ million	≤ 1 month	> 1 month – 3 months	> 3 months – 1 year	> 1 year – 5 years	> 5 years
Portugal	-	-	26	101	808
Italy	15	86	282	1,598	4,581
Spain	4	6	109	614	2,030
Total	19	92	417	2,313	7,419

The maturity analysis shows the contractually agreed cash inflows.

E Other disclosures

>> 51 Contingent liabilities

€ million	Jun. 30, 2019	Dec. 31, 2018
Contingent liabilities arising from contributions to the resolution fund for CRR credit institutions	36	25
Contingent liabilities in respect of litigation risk	9	10
Total	**45**	**35**

The contingent liabilities arising from contributions to the resolution fund for CRR credit institutions consist of irrevocable payment commitments that were made after the applications to furnish collateral in partial settlement of the annual contribution to the European bank levy for 2017 to 2019 were approved by the Single Resolution Board (SRB).

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 are recognized.

>> 52 Financial guarantee contracts and loan commitments

€ million	Jun. 30, 2019	Dec. 31, 2018
Financial guarantee contracts	**7,555**	**7,601**
Loan guarantees	3,973	4,022
Letters of credit	477	465
Other guarantees and warranties	3,105	3,114
Loan commitments	**54,474**	**54,270**
Credit facilities to banks	17,356	17,723
Credit facilities to customers	15,789	15,866
Guarantee credits	431	436
Letters of credit	1	1
Global limits	20,897	20,244
Total	**62,029**	**61,871**

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

>> 53 Trust activities

Trust assets and trust liabilities amounted to €903 million as at June 30, 2019 (December 31, 2018: €944 million).

>> 54 Disclosures on revenue from contracts with customers

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

INFORMATION ON OPERATING SEGMENTS FOR THE PERIOD JANUARY 1 TO JUNE 30, 2019

€ million	DZ BANK	BSH	DVB
Income type			
Fee and commission income from securities business	183	-	-
Fee and commission income from asset management	-	-	-
Fee and commission income from payments processing including card processing	111	-	1
Fee and commission income from lending business and trust activities	30	-	24
Fee and commission income from financial guarantee contracts and loan commitments	26	-	1
Fee and commission income from international business	5	-	-
Fee and commission income from building society operations	-	17	-
Other fee and commission income	30	30	4
Fee and commission income in gains and losses on investments held by insurance companies and other insurance company gains and losses	-	-	-
Other income in gains and losses on investments held by insurance companies and other insurance company gains and losses	-	-	-
Other operating income	-	-	-
Total	**385**	**47**	**30**
Main geographical markets			
Germany	385	42	4
Rest of Europe	-	5	18
Rest of World	-	-	8
Total	**385**	**47**	**30**
Type of revenue recognition			
At a point in time	139	47	6
Over a period of time	246	-	24
Total	**385**	**47**	**30**

	DZ HYP	DZ PRIVAT-BANK	R+V	TeamBank	UMH	VR Smart Finanz	Other/ Consolidation	**Total**
	-	80	-	-	1,265	-	-31	1,497
	-	112	-	-	8	-	-8	112
	-	-	-	-	-	-	34	146
	2	-	-	2	-	-	12	70
	3	-	-	-	-	-	-1	29
	-	-	-	-	-	-	-	5
	-	-	-	-	-	-	-	17
	1	10	-	77	-	17	-65	104
	-	-	31	-	-	-	-	31
	-	-	38	-	-	-	-	38
	-	-	-	6	2	-	5	13
	6	**202**	**69**	**85**	**1,275**	**17**	**-54**	**2,062**
	6	42	69	85	990	17	-39	1,601
	-	159	-	-	285	-	-15	452
	-	1	-	-	-	-	-	9
	6	**202**	**69**	**85**	**1,275**	**17**	**-54**	**2,062**
	4	85	17	85	211	17	-63	548
	2	117	52	-	1,064	-	9	1,514
	6	**202**	**69**	**85**	**1,275**	**17**	**-54**	**2,062**

INFORMATION ON OPERATING SEGMENTS FOR THE PERIOD JANUARY 1 TO JUNE 30, 2018

€ million	DZ BANK	BSH	DVB
Income type			
Fee and commission income from securities business [1]	157	-	-
Fee and commission income from asset management	-	-	-
Fee and commission income from payments processing including card processing	109	-	1
Fee and commission income from lending business and trust activities	36	-	31
Fee and commission income from financial guarantee contracts and loan commitments	24	-	1
Fee and commission income from international business	5	-	-
Fee and commission income from building society operations	-	11	-
Other fee and commission income	25	29	15
Fee and commission income in gains and losses on investments held by insurance companies and other insurance company gains and losses [1]	-	-	-
Other income in gains and losses on investments held by insurance companies and other insurance company gains and losses [1]	-	-	-
Other operating income	-	-	-
Total	**356**	**40**	**48**
Main geographical markets			
Germany [1]	356	39	18
Rest of Europe [1]	-	1	24
Rest of World	-	-	6
Total	**356**	**40**	**48**
Type of revenue recognition			
At a point in time [1]	128	39	16
Over a period of time [1]	228	1	32
Total	**356**	**40**	**48**

1 Amount restated (see note 2).

	DZ HYP	DZ PRIVAT-BANK	R+V	TeamBank	UMH	VR Smart Finanz	Other/ Consolidation	**Total**
	-	57	-	-	1,188	-	-14	1,388
	-	113	-	-	8	-	-7	114
	-	-	-	-	-	-	14	124
	3	-	-	-	-	-	-	70
	3	-	-	-	-	-	-1	27
	-	-	-	-	-	-	-	5
	-	-	-	-	-	-	-	11
	-	5	-	77	-	18	-70	99
	-	-	29	-	-	-	-	29
	-	-	24	-	-	-	-	24
	-	-	-	5	2	-	4	11
	6	**175**	**53**	**82**	**1,198**	**18**	**-74**	**1,902**
	6	45	53	82	885	18	-86	1,416
	-	129	-	-	313	-	12	479
	-	1	-	-	-	-	-	7
	6	**175**	**53**	**82**	**1,198**	**18**	**-74**	**1,902**
	6	23	3	82	140	18	-56	399
	-	152	50	-	1,058	-	-18	1,503
	6	**175**	**53**	**82**	**1,198**	**18**	**-74**	**1,902**

>> 55 Employees

Average number of employees by employee group:

	Jan. 1 – Jun. 30, 2019	Jan. 1 – Jun. 30, 2018
Female employees	**14,045**	**13,792**
Full-time employees	8,600	8,513
Part-time employees	5,445	5,279
Male employees	**16,801**	**16,578**
Full-time employees	15,713	15,599
Part-time employees	1,088	979
Total	**30,846**	**30,370**

>> 56 Board of Managing Directors

Uwe Fröhlich
(Co-Chief Executive Officer)
Responsibilities: Cooperative Banks/Verbund; Communication, Marketing, CSR; Research and Economics; Strategy & Group Development; Structured Finance

Dr. Cornelius Riese
(Co-Chief Executive Officer)
Responsibilities: Group Audit; Legal; Strategy & Corporate Development

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; Organization

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

Wolfgang Köhler
Responsibilities: Capital Markets Trading; Capital Markets Institutional Clients; Capital Markets Retail Clients; Group Treasury

Michael Speth
Responsibilities: Group Risk Controlling; Credit; Credit Special

Thomas Ullrich
Responsibilities: Group Human Resources; Operations; 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

Martin Eul
(Deputy Chairman of the Supervisory Board)
Chief Executive Officer
Dortmunder Volksbank eG

Heiner Beckmann
Senior manager
R+V Allgemeine Versicherung AG

Hermann Buerstedde
Employee
Union Asset Management Holding AG

Uwe Goldstein
Spokesman of the Board of Managing Directors
Raiffeisenbank Frechen-Hürth eG

Timm Häberle
Chief Executive Officer
VR-Bank Neckar-Enz 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

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

Renate Mack
Employee
DZ BANK AG
Deutsche Zentral-Genossenschaftsbank

Rainer Mangels
Employee
R+V Rechtsschutz-
Schadenregulierungs-GmbH

Stephan Schack
Chief Executive Officer
Volksbank Raiffeisenbank eG, Itzehoe

Gregor Scheller
Chief Executive Officer
Volksbank Forchheim eG

Uwe Spitzbarth
Head of the Financial Services Division
ver.di Bundesverwaltung

Sigrid Stenzel
Regional Group Director
ver.di Bayern

Ingo Stockhausen
Chief Executive Officer
Volksbank Oberberg eG

Dr. Wolfgang Thomasberger
Chief Executive Officer
VR Bank Rhein-Neckar eG