Notes to the consolidated financial statements 2017

1. Company information

Hannover Rück SE and its subsidiaries (collectively referred to as the “Hannover Re Group” or “Hannover Re”) transact all lines of property & casualty and life & health reinsurance. With gross premium of approximately EUR 17.8 billion, Hannover Re is the third-largest reinsurance group in the world. The company’s network consists of more than 140 subsidiaries, affiliates, branches and representative offices worldwide with a total workforce of roughly 3,300. The Group’s German business is conducted by the subsidiary E+S Rückversicherung AG. Hannover Rück SE is a European Company, Societas Europaea (SE), which has its registered office at Karl-Wiechert-Allee 50, 30625 Hannover, Germany, and is entered in the commercial register of Hannover County Court under the number HR Hannover B 6778. 50.2% (rounded) of the shares of Hannover Rück SE are held by Talanx AG, Hannover, which in turn is majority-owned – with an interest of 79% – by HDI Haftpflichtverband der Deutschen Industrie V.a.G. (HDI), Hannover.

2. Accounting principles

Hannover Rück SE and its subsidiaries are required to prepare a consolidated financial statement and group management report in accordance with § 290 German Commercial Code (HGB).

Pursuant to EU Regulation (EC) No. 1606/2002, the present consolidated financial statement and group management report of Hannover Re have been drawn up in accordance with the International Financial Reporting Standards (IFRS) that are to be applied within the European Union. In addition, we have made allowance for the regulations that are also applicable pursuant to § 315a Para. 1 German Commercial Code (HGB) and the supplementary provisions of the Articles of Association of Hannover Rück SE as amended on 30 May 2016.

The consolidated financial statement reflects all IFRS in force as at 31 December 2017 as well as all interpretations issued by the International Financial Reporting Interpretations Committee (IFRIC), application of which was mandatory for the year under review. IFRS 4 “Insurance Contracts” requires disclosures on the nature and extent of risks stemming from reinsurance contracts, while IFRS 7 “Financial Instruments: Disclosures” requires similar information on risks from financial instruments. Additionally, § 315 Para. 2 Number 1 German Commercial Code (HGB) also contains requirements for insurance undertakings with regard to information on the management of underwriting and financial risks that is to be provided in the management report. The disclosures resulting from these requirements are included in the risk report. We have dispensed with an additional presentation of the same content in the notes. In order to obtain a comprehensive overview of the risks to which Hannover Re is exposed it is therefore necessary to consider both the risk report and the relevant information in the notes. We refer the reader accordingly to the corresponding remarks in the risk report and the notes.

In view of the fact that reinsurance contracts, in conformity with IFRS 4 “Insurance Contracts”, are recognised according to the pertinent provisions of United States Generally Accepted Accounting Principles (US GAAP) as applicable on the date of initial application of IFRS 4 on 1 January 2005, we cite individual insurance-specific standards of US GAAP using the designation “Statement of Financial Accounting Standard (SFAS)” that was valid at that time.

The declaration of conformity required pursuant to § 161 German Stock Corporation Act (AktG) regarding compliance with the German Corporate Governance Code has been submitted and, as described in the Declaration of the Executive Board regarding the Corporate Governance of the Company, made permanently available on the Hannover Re website.

The annual financial statements included in the consolidated financial statement were for the most part drawn up as at 31 December. Pursuant to IFRS 10 “Consolidated Financial Statements” there is no requirement to compile interim accounts for Group companies with diverging reporting dates because their closing dates are no earlier than three months prior to the closing date for the consolidated financial statement. Insofar as no interim accounts were drawn up, allowance has been made for the effects of significant transactions between the diverging reporting dates and the closing date for the consolidated financial statement.

The annual financial statements of all companies were drawn up in accordance with standard Group accounting and measurement rules pursuant to IFRS.

The consolidated financial statement was drawn up in euros (EUR), the amounts shown have been rounded to EUR thousands and – provided this does not detract from transparency – to EUR millions. Figures indicated in brackets refer to the previous year.

The present consolidated financial statement was released for publication by a resolution of the Executive Board on 23 February 2018.

New accounting standards or accounting standards applied for the first time

The amendments to existing standards listed below were applicable for the first time in the year under review and had no significant implications overall for the net assets, financial position or result of operations of the Hannover Re Group.

- Disclosure Initiative (Amendments to IAS 7)
- Recognition of Deferred Tax Assets for Unrealised Losses (Amendments to IAS 12)
- Annual Improvements to IFRS Standards 2014–2016 Cycle

Standards or changes in standards that have not yet entered into force or are not yet applicable

In May 2017 the IASB published the final version of IFRS 17 "Insurance Contracts", which has still to be endorsed by the EU. IFRS 17 replaces IFRS 4 and thereby establishes for the first time consistent principles for the recognition, measurement, presentation and disclosure of insurance contracts, reinsurance contracts and investment contracts with discretionary participation features. The measurement model of IFRS 17 requires entities to measure groups of insurance contracts based on estimates of discounted future cash flows with an explicit risk adjustment for non-financial risks ("fulfilment cash flows") as well as a contractual service margin, representing the expected (i. e. unearned) profit for the provision of insurance coverage in the future.

Instead of reporting premium income when it is received, insurance revenue is reported when it is earned by recognising in each period the changes in the liability for providing coverage for which the insurance entity receives compensation as well as the part of the premiums that cover acquisition costs. Receipts and payments relating to savings components are not recognised as revenue or as profit or loss in the statement of income. Insurance finance income and expenses result from discounting effects and financial risks. For each portfolio of insurance contracts they may either be recognised in profit or loss in the statement of income or in other comprehensive income.

Changes in assumptions that do not relate to interest rates or financial risks are not recognised directly in the statement of income but are booked against the contractual service margin and hence spread across the remaining coverage period. Changes in estimates are only recognised immediately in profit or loss in the case of those groups of insurance contracts that are expected to be loss-making.

IFRS 17 includes an approximation method for short-term contracts that captures the liability for providing insurance coverage through unearned premium, as has been the case to date. Liabilities from outstanding claims must be discounted using current interest rates under IFRS 17. IFRS 17 modifies the general valuation model for large parts of life insurance business by requiring that changes in the shareholders' share in the development of returns on the items underlying the surplus participation also be recognised in the contractual service margin and spread over the remaining period for which coverage is provided.

Subject to endorsement in EU law, IFRS 17 is effective for annual reporting periods beginning on or after 1 January 2021.

Hannover Re had already launched a very extensive implementation project in the middle of last year. At this moment, however, it is too early to comment on any specific implications of the new standard at the time of initial application.

In January 2016 the IASB issued IFRS 16 "Leases" setting out new principles governing the recognition, measurement, presentation and disclosure of leases. The most significant new requirements relate principally to accounting by lessees. In future, the lessee shall as a general principle recognise a lease liability for all leases. At the same time it shall recognise a right to use the underlying asset. Accounting by lessors remains comparable with current practice, according to which the lessor classifies each lease as an operating lease or a finance lease. The standard is to be applied to annual periods beginning on or after 1 January 2019. Hannover Re intends to apply the standard using a modified retrospective approach and will recognise the cumulative effect of application of the standard in retained earnings as at 1 January 2019. The detailed analysis conducted by Hannover Re determined that the consolidated balance sheet will be extended by around EUR 115 million at the time of initial application through the recognition of rights of use and lease liabilities. The expense from leases in the form of impairments taken on rights of use and interest on lease liabilities will probably amount to around EUR 23 million.

In July 2014 the IASB published the final version of IFRS 9 "Financial Instruments", which supersedes all previous versions of this standard and replaces the existing IAS 39 "Financial Instruments: Recognition and Measurement". The standard contains requirements governing classification and measurement, impairment based on the new expected credit loss impairment approach and general hedge accounting. Initial mandatory application of the standard, which was endorsed by the EU in November 2016, is set for annual periods beginning on or after 1 January 2018. In September 2016, however, the IASB published "Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts (Amendments to IFRS 4)". These amendments address the implications of the different effective dates for initial application of IFRS 9 and IFRS 17, the new standard governing the recognition of insurance and reinsurance contracts which has now been published. Under the so-called deferral approach provided for in the amendments, entities whose predominant activity is issuing insurance and reinsurance contracts within the scope of IFRS 4 are granted an optional temporary exemption from recognising their financial instruments in accordance with IFRS 9 until the recognition of insurance and reinsurance contracts has been finally settled, although this option may not be used after 1 January 2021. Hannover Re reviewed the application requirements based on the consolidated financial statement as at 31 December 2015 with a positive outcome and decided to make use of the deferral approach. Hannover Re primarily anticipates implications for the classification of financial instruments. The IFRS 9 implementation project is running parallel to and in close coordination with the IFRS 17 implementation project.

In May 2014 the IASB issued IFRS 15 "Revenue from Contracts with Customers". The standard specifies when and in what amount revenue is to be recognised and which disclosures are required for this purpose. IFRS 15 provides a single five-step model framework to be applied to all contracts with customers. In the "Clarifications to IFRS 15 Revenue from Contracts with Customers", which were published in April 2016, the IASB clarified various principles of IFRS 15 and included additional transition relief provisions. Financial instruments and other contractual rights and obligations which are to be recognised under separate standards as well as (re)insurance contracts within the scope of IFRS 4 "Insurance Contracts" are expressly exempted from the standard's scope of application. Both the standard and the clarifications are to be applied for the first time to annual periods beginning on or after 1 January 2018. Hannover Re subjected the service contracts existing as at the balance sheet date to analysis and does not anticipate any significant changes relative to current practice. The predominant activity of the Hannover Re Group falls within the scope of application of IFRS 4. Consequently, the services falling within the scope of application of IFRS 15 will probably not have any significant implications overall for the Group's net assets, financial position or result of operations. Hannover Re intends to opt for the modified retrospective approach on initial application of IFRS 15, according to which the cumulative effect of applying the new standard is recognised in retained earnings as at 1 January 2018. In addition, the practical transition relief provided in the standard with respect to completed contracts and contract modifications will be utilised.

In addition to the accounting principles described above, the IASB has issued the following standards, interpretations and amendments to existing standards with possible implications for the consolidated financial statement of Hannover Re, application of which was not yet mandatory for the year under review and which are not being applied early by Hannover Re. Initial application of these new standards is not expected to have any significant implications for Hannover Re's net assets, financial position or result of operations:

Further IFRS Amendments and Interpretations **N06**

Published:	Title	Initial application to annual periods beginning on or after the following date:
December 2017	Annual Improvements to IFRS Standards 2015–2017 Cycle	1 January 2019 (still to be endorsed by the EU)
October 2017	Prepayment Features with Negative Compensation (Amendments to IFRS 9)	1 January 2019 (still to be endorsed by the EU)
October 2017	Long-term Interests in Associates and Joint Ventures (Amendments to IAS 28)	1 January 2019 (still to be endorsed by the EU)
June 2017	IFRIC 23 - Uncertainty over Income Tax Treatments	1 January 2019 (still to be endorsed by the EU)
December 2016	IFRIC 22 - Foreign Currency Transactions and Advance Consideration	1 January 2018 (still to be endorsed by the EU)
December 2016	Transfers of Investment Property (Amendments to IAS 40)	1 January 2018 (still to be endorsed by the EU)
June 2016	Classification and Measurement of Share-based Payment Transactions (Amendments to IFRS 2)	1 January 2018 (still to be endorsed by the EU)

3. Accounting policies

3.1 Changes in accounting policies

In the consolidated financial statement for the 2016 financial year Hannover Re netted components of the deferred acquisition costs and the unearned premium reserve with the benefit reserve for a certain portfolio of reinsurance treaties. This incorrect disclosure was corrected retrospectively in accordance with IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors" with restatement of the comparative figures for previous periods. The effects of this change on the individual items of the consolidated balance sheet and the consolidated statement of income are shown in the following table. There were no implications for Group net income.

Restatements pursuant to IAS 8 N 07

in EUR thousand	1.1.2016	31.12.2016
Consolidated balance sheet		
Deferred acquisition costs	54,470	65,945
Benefit reserve	20,992	24,098
Unearned premium reserve	33,478	41,847

in EUR thousand		1.1.–31.12.2016
Consolidated statement of income		
Change in gross unearned premium		(7,339)
Change in benefit reserves		2,498
Commission and brokerage, change in deferred acquisition costs		(9,837)
Group net income		–

3.2 Summary of major accounting policies

Reinsurance contracts: IFRS 4 "Insurance Contracts" represents the outcome of Phase I of the IASB project "Insurance Contracts" and constitutes a transitional arrangement. IFRS 17, which was issued by the IASB in May 2017, establishes binding principles for the measurement of insurance contracts effective for annual reporting periods beginning on or after 1 January 2021.

IFRS 4 sets out basic principles for the accounting of insurance contracts. Underwriting business is to be subdivided into insurance and investment contracts. Contracts with a significant insurance risk are considered to be insurance contracts, while contracts without significant insurance risk are to be classified as investment contracts. The standard is also applicable to reinsurance contracts. IFRS 4 contains fundamental rules governing specific circumstances, such as the separation of embedded derivatives and unbundling of deposit components, but it does not set out any more extensive provisions relating to the measurement of insurance and reinsurance contracts. In conformity with the basic rules of IFRS 4 and the IFRS Framework, reinsurance-specific transactions therefore continue to be recognised in accordance with the pertinent provisions of US GAAP (United States Generally Accepted Accounting Principles) as applicable on the date of initial application of IFRS 4 on 1 January 2005.

Financial assets: as a basic principle we recognise the purchase and sale of directly held financial assets including derivative financial instruments as at the settlement date. The recognition of fixed-income securities includes apportionable accrued interest.

Financial assets held to maturity are comprised of non-derivative assets that entail fixed or determinable payments on a defined due date and are acquired with the intent and ability to be held until maturity. They are measured at amortised cost. The corresponding premiums or discounts are recognised in profit or loss across the duration of the instruments using the effective interest rate method. A write-down is taken in the event of permanent impairment. Please refer to our comments on impairments in this section.

Loans and receivables are non-derivative financial instruments that include fixed or determinable payments on a defined due date, are not listed on an active market and are not sold at short notice. They are carried at amortised cost.

Premiums or discounts are deducted or added within the statement of income using the effective interest rate method until the amount repayable becomes due. Impairment is taken only to the extent that repayment of a loan is unlikely or no longer expected in the full amount. Please refer to our comments on impairments in this section.

Valuation models **N 08**

Financial instrument	Parameter	Pricing model
Fixed-income securities		
Unlisted plain vanilla bonds, interest rate swaps	Interest rate curve	Present value method
Unlisted structured bonds	Interest rate curve, volatility surfaces	Hull-White, Black-Karasinski, LIBOR market model etc.
Unlisted ABS/MBS, CDO/CLO	Risk premiums, default rates, prepayment speed and recovery rates	Present value method
Other invested assets		
Unlisted equities and equity investments	Acquisition cost, cash flows, EBIT multiples, as applicable book value	Capitalised earnings method, discounted cash flow method, multiple-based approaches
Private equity funds, private equity real estate funds	Audited net asset values (NAV)	Net asset value method
Unlisted bond, equity and real estate funds	Audited net asset values (NAV)	Net asset value method
Other financial assets – at fair value through profit or loss		
Currency forwards	Interest rate curves, spot and forward rates	Interest parity model
OTC stock options, OTC stock index options	Listing of the underlying share, implicit volatilities, money-market interest rate, dividend yield	Black-Scholes
Insurance derivatives	Fair values, actuarial parameters, interest rate curve	Present value method

Financial assets at fair value through profit or loss consist of securities held for trading and those classified as measured at fair value through profit or loss since acquisition. This refers principally to unsecured debt instruments issued by corporate issuers and derivative financial instruments. Within the scope of the fair value option provided under IAS 39 "Financial Instruments: Recognition and Measurement", according to which financial assets may be carried at fair value on first-time recognition subject to certain conditions, all structured securities that would have needed to have been broken down had they been recognised as available for sale or under loans and receivables are also recognised here. Hannover Re makes use of the fair value option solely for selected subportfolios of its financial assets. Securities held for trading and securities classified as measured at fair value through profit or loss since acquisition are carried at their fair value on the balance sheet date. If stock market prices are not available for use as fair values, the carrying amounts are determined using generally acknowledged measurement methods. All changes in fair values from this measurement are recognised in investment income. The classification of financial assets at fair value through profit or loss is compatible with Hannover Re's risk management strategy and investment strategy, which are oriented extensively towards economic fair value variables.

Financial assets classified as available for sale are carried at fair value; accrued interest is recognised in this context. We allocate to this category those financial instruments that do not satisfy the criteria for classification as held to maturity, loans and receivables, at fair value through profit or loss, or trading. Unrealised gains and losses arising out of changes in the fair value of securities held as available for sale are recognised – with the exception of currency valuation differences on monetary items – directly in shareholder's equity after deduction of deferred taxes.

Establishment of the fair value of financial instruments carried as assets or liabilities: we establish the fair value of financial instruments carried as assets or liabilities using the methods and models described below. The fair value of a financial instrument corresponds to the amount that Hannover Re would receive or pay if it were to sell or settle the said financial instrument on the balance sheet date. Insofar as market prices are listed on markets for financial assets, their bid price is used; financial liabilities are valued at ask price. In other cases the fair values are established on the basis of the market conditions prevailing on the balance sheet date for financial assets with similar credit rating, duration and return characteristics or using recognised models of mathematical finance. Hannover Re uses a number of different valuation models for this purpose. The details are set out in the table above. Financial assets for which no publicly available prices or observable market data can be used as inputs (financial instruments belonging to fair value hierarchy level 3) are for the most part measured on the basis of proven valuations drawn up by knowledgeable, independent experts, e. g. audited net asset value, the plausibility of which has previously been subjected to systematic review. For further information please see our explanatory remarks on the fair value hierarchy in section 6.1 "Investments under own management".

Impairments: As at each balance sheet date we review our financial assets with an eye to the need to take impairments. Permanent impairments on all invested assets are recognised directly in the statement of income. In this context we take as a basis the same indicators as those subsequently discussed for fixed-income securities and securities with the character of equity. Qualitative case-by-case analysis is also carried out. IAS 39 "Financial Instruments: Recognition and Measurement" contains a list of objective, substantial indications for impairments of financial assets. In the case of fixed-income securities and loans reference is made, in particular, to the rating of the instrument, the rating of the issuer/borrower as well as the individual market assessment in order to establish whether they are impaired. With respect to held-to-maturity instruments as well as loans and receivables recognised at amortised cost, the level of impairment is arrived at from the difference between the book value of the asset and the present value of the expected future cash flows. The book value is reduced directly by this amount which is then recognised as an expense. With the exception of value adjustments taken on accounts receivable, we recognize impairments directly on the assets side – without using an adjustment account – separately from the relevant items. If the reasons for the write-down no longer apply, a write-up is made in income up to at most the original amortised cost for fixed-income securities.

With respect to impairments on securities with the character of equity, IAS 39 "Financial Instruments: Recognition and Measurement" states, in addition to the aforementioned principles, that a significant or prolonged decrease in fair value below acquisition cost constitutes objective evidence of impairment. Hannover Re considers equity securities to be impaired under IAS 39 if their fair value falls significantly, i. e. by at least 20%, or for a prolonged period, i. e. at least nine months, below acquisition cost. In accordance with IAS 39 the reversal of impairment losses on equities to the statement of income once impairment has been taken is prohibited, as is adjustment of the cost basis. Impairment is tested in each reporting period using the criteria defined by Hannover Re. If an equity security is considered to be impaired on the basis of these criteria, IAS 39 requires that a value adjustment be recognised in the amount of the fair value less historical cost and less prior value adjustments, meaning that depreciation is taken on the fair value as at the closing date – if available, on the publicly quoted stock exchange price. We also apply this method to participations in funds that invest in private equity. In order to reflect the specific character of these funds (in this case initially negative yield and liquidity flows from the so-called "J curve" effect during the investment period of the funds), we take an impairment to net asset value as an approximation of the fair value for the first time after a two-year waiting period if there is a significant or prolonged decrease in value.

Netting of financial instruments: financial assets and liabilities are only netted and recognised in the appropriate net amount if a corresponding legal claim (reciprocity, similarity and maturity) exists or is expressly agreed by contract, in other words if the intention exists to offset such items on a net basis or to effect this offsetting simultaneously.

Other invested assets are for the most part recognised at nominal value. Insofar as such financial assets are not listed on public markets (e. g. participating interests in private equity firms), they are carried at the latest available net asset value as an approximation of the fair value. Loans included in this item are recognised at amortised cost.

Investments in associated companies are valued at equity on the basis of the proportionate shareholders' equity attributable to the Group. Further information is provided in section 4.1 "Consolidation principles".

Real estate used by third parties (investment property) is valued at cost less scheduled depreciation and impairment. Straight-line depreciation is taken over the expected useful life – at most 50 years. Under the impairment test the market value of real estate for third-party use (recoverable amount) is determined using acknowledged valuation methods and compared with the book value; arising impairments are recognised. Maintenance costs and repairs are expensed. Value-enhancing expenditures are capitalised if they extend the useful life.

Cash and cash equivalents are carried at face value. Cash collateral that we have received for the hedging of positive fair values of derivatives is shown under other liabilities.

Funds withheld are receivables due to reinsurers from their clients in the amount of the cash deposits contractually withheld by such clients; they are recognised at acquisition cost (nominal amount). Appropriate allowance is made for credit risks.

Contract deposits: under this item we report receivables and liabilities under insurance contracts that satisfy the test of a significant risk transfer to the reinsurer as required by IFRS 4 "Insurance Contracts" but fail to meet the risk transfer required by US GAAP. IFRS 4 in conjunction with SFAS 113 requires insurance contracts that transfer a significant technical risk from the ceding company to the reinsurer to be differentiated from those under which the risk transfer is of merely subordinate importance. Since the risk transfer under the affected transactions is of subordinate importance, these contracts are recognised using the "deposit accounting" method and hence eliminated from the technical account. The compensation for risk assumption booked to income under these contracts is netted under other income and expenses. The payment flows resulting from these contracts are shown in the cash flow statement under operating activities.

Accounts receivable: the accounts receivable under reinsurance business and the other receivables are carried at nominal value; value adjustments are made where necessary on the basis of a case-by-case analysis. We use adjustment accounts for value adjustments taken on reinsurance accounts receivable, while all other write-downs are booked directly against the underlying position.

Deferred acquisition costs principally consist of commissions and other variable costs directly connected with the acquisition or renewal of existing reinsurance contracts. These acquisition costs are capitalised and amortised over the expected period of the underlying reinsurance contracts. Deferred acquisition costs are regularly tested for impairment.

Reinsurance recoverables on technical reserves: shares of our retrocessionaires in the technical reserves are calculated according to the contractual conditions on the basis of the gross technical reserves. Appropriate allowance is made for credit risks.

Intangible assets: in accordance with IFRS 3 "Business Combinations" goodwill is not amortised; instead, impairments may be taken after an annual impairment test or as indicated. For the purposes of the impairment test, goodwill is to be allocated pursuant to IAS 36 "Impairment of Assets" to so-called "cash generating units" (CGUs). Each CGU to which goodwill is allocated should represent the lowest level on which goodwill is monitored for internal management purposes and may not be larger than a segment. Following allocation of the goodwill it is necessary to determine for each CGU the recoverable amount, defined as the higher of the value in use and the fair value less costs to sell. For impaired goodwill the recoverable amount is to be stated. The recoverable amount is to be compared with the book value of the CGU including goodwill. When the latter exceeds the recoverable amount, an impairment expense is to be recognised. For detailed information on the impairment method used and the goodwill recognised as at the balance sheet date, please see section 6.5 "Goodwill".

The other intangible assets largely consist of purchased and self-developed software. This is recognised at acquisition cost less scheduled depreciation. Intangible assets are regularly tested for impairment and impairment is taken where necessary. The other intangible assets also include the expected profits from acquired life reinsurance portfolios. These are carried at the present value of future profits (PVFP) at time of acquisition, which is calculated as the present value of profits expected from the acquired blocks of business disregarding new business and tax effects. Scheduled amortisation is taken according to the periods of the underlying acquired contracts. The PVFP is regularly tested for impairment using a liability adequacy test and impairments are taken if necessary. In this regard please see section 3.3 "Major discretionary decisions and estimates".

Deferred tax assets: IAS 12 "Income Taxes" requires that assets-side deferred taxes be established if assets have to be recognised in a lower amount or liabilities in a higher amount in the consolidated balance sheet than in the tax balance sheet and if these temporary differences will lead to reduced tax burdens in the future. In principle, temporary differences result from the valuation differences between the tax balance sheets drawn up in accordance with national standards and the IFRS balance sheets of the companies included in the consolidated financial statement drawn up in accordance with uniform group standards as well as from consolidation processes. Deferred tax assets and liabilities are not established if they arise out of assets or liabilities, the book value of which upon first-time recognition diverges from their initial tax base.

Deferred tax assets are also recognised on tax loss carry-forwards and tax credits. Insofar as the deferred taxes refer to items carried directly in equity, the resulting deferred taxes are also recognised directly in equity. Value adjustments are taken on deferred tax assets as soon as realisation of the receivable no longer appears likely. Deferred taxes are measured according to the tax regulations specific to the country concerned that are applicable or have been adopted as at the closing date.

Deferred tax assets may only be netted with deferred tax liabilities if an enforceable right exists to net actual tax refund claims with actual taxes owing. A precondition here is that the deferred tax assets and deferred tax liabilities refer to income taxes that are levied by the same revenue authority either for (i) the same taxable entity or for (ii) different taxable entities. In this regard, there must be an intention – in every future period in which the discharge or realisation of substantial amounts of deferred tax liabilities / deferred tax assets is to be expected – either to bring about the settlement of the actual taxes owing and refund claims on a net basis or to discharge the liabilities at the same time as the claims are realised.

Own-use real estate: The portfolio of own-use real estate is measured at cost less scheduled straight-line depreciation over a useful life of no more than 50 years. The fair values are determined for comparative purposes using the discounted cash flow method.

Other assets are accounted for at amortised cost.

Technical reserves: the technical reserves are shown for gross account in the balance sheet, i. e. before deduction of the share attributable to our reinsurers; cf. here the remarks concerning the corresponding assets. The reinsurers' portion is calculated and accounted for on the basis of the individual reinsurance contracts.

Loss and loss adjustment expense reserves are constituted for payment obligations from reinsurance losses that have occurred but have not yet been settled. They are subdivided into reserves for reinsurance losses reported by the balance sheet date and reserves for reinsurance losses that have already been incurred but not yet reported (IBNR) by the balance sheet date. The loss and loss adjustment expense reserves are based on estimates that may diverge from the actual amounts payable. In reinsurance business a considerable period of time may elapse between the occurrence of an insured loss, notification by the insurer and pro-rata payment of the loss by the reinsurer. For this reason the realistically estimated future settlement amount based on long-standing established practice is carried. Recognised actuarial methods are used for estimation purposes. In this regard we make allowance for past experience, currently known facts and circumstances, the expertise of the market units as well as other assumptions relating to the future development, in particular economic, social and technical influencing factors. Subsequently, based on Group-wide analyses, we give separate consideration in this context to the inherent volatility of the reserves constituted for the reinsurance business, e. g. due to large losses. The interest rate-induced portion of the change in the reserve is shown in the statement of income on a consistent Group basis.

Benefit reserves are comprised of the underwriting reserves for guaranteed claims of ceding companies in life and health reinsurance. Benefit reserves are determined using actuarial methods on the basis of the present value of future payments to cedants less the present value of premium still payable by cedants. The calculation includes assumptions relating to mortality, disability, lapse rates and the future interest rate development. The actuarial bases used in this context allow an adequate safety margin for the risks of change, error and random fluctuation. They correspond to those used in the premium calculation and are adjusted if the original safety margins no longer appear to be sufficient.

Provisions for pensions are established in accordance with IAS 19 "Employee Benefits" using the projected unit credit method. They are calculated according to actuarial principles and are based upon the commitments made by the Hannover Re Group for retirement, disability and widows' benefits. The amount of the commitments is determined according to length of service and salary level. The pension plans are defined benefit plans. The basis of the valuation is the estimated future increase in the rate of compensation of the pension beneficiaries. The benefit entitlements are discounted by applying the capital market rate for highest-rated securities. All changes in valuation, especially actuarial gains and losses, are captured immediately in cumulative other comprehensive income. Service cost and interest cost are recognised in the statement of income. Returns on plan assets are determined using the same interest rate as that used in the calculation of the present value of the defined benefit obligation.

Contributions to defined contribution plans are expensed when the beneficiary of the commitment has performed the work that entitles them to such contributions.

Deferred tax liabilities: in accordance with IAS 12 "Income Taxes" deferred tax liabilities must be recognised if assets are to be recognised in a higher amount or liabilities in a lower amount in the consolidated balance sheet than in the tax balance sheet and if these temporary differences will lead to additional tax loads in the future; please see our explanatory remarks on deferred tax assets.

Under the balance sheet item **Other liabilities** we recognise not only the sundry non-technical provisions but also minority interests in partnerships. Direct minority interests in partnerships, i. e. liabilities to holders of minority shares in partnerships arising out of long-term capital commitments, which are puttable at fair value by the holder of the interest, are recognised as debt pursuant to IAS 32 and measured at the fair value of the redemption amount as at the balance sheet date.

Sundry non-technical provisions are established according to a realistic estimate of the amount required and shown under the balance sheet item "Other liabilities". Allocation to such provisions is conditional upon the Group currently having a legal or actual obligation that results from a past event and in respect of which utilisation is probable and the amount can be reliably estimated.

Restructuring provisions are recognised if a detailed formal plan for restructuring measures exists and steps to implement it have already begun or if key details of the restructuring have been published. The provisions cover only expenditures arising directly as a consequence of restructuring that are not connected with the company's regular activities.

Partial retirement obligations are carried at present value according to actuarial principles. During the phase when the employee is still working a provision is set aside to cover the liability amounting to the working hours not yet compensated. Top-up payments are accumulated in instalments until the end of the work phase. In periods when the employee is remunerated according to the partial retirement arrangements without performing any work, the provision is released.

Share-based payments: The share-based payment models existing within the Hannover Re Group are remuneration plans with cash settlement. In accordance with the requirements of IFRS 2 "Share-based Payments", the services rendered by the eligible beneficiaries and the resulting liability are to be recognised at the fair value of the liability and expensed over the vesting period. Until settlement of the liability the fair value of the liability is remeasured at each closing date and at the settlement date. All changes in fair value are recognised in profit or loss for the period.

Debt and subordinated capital principally consists of subordinated liabilities that can only be satisfied after the claims of other creditors in the event of liquidation or bankruptcy. They are measured at amortised cost using the effective interest rate method. Both components of profit or loss arising out of the amortisation of transaction costs and premiums / discounts in connection with an issue and the nominal interest are shown as interest on hybrid capital.

Financial liabilities at fair value through profit or loss: Hannover Re does not make use of the fair value option provided by IAS 39 "Financial Instruments: Recognition and Measurement" to classify financial liabilities in this category upon first-time recognition.

Shareholders' equity: the items "common shares" and "additional paid-in capital" are comprised of the amounts paid in by the shareholders of Hannover Rück SE on its shares. In addition to the statutory reserves of Hannover Rück SE and the allocations from net income, the retained earnings consist of reinvested profits generated by the Hannover Re Group companies in previous periods. What is more, in the event of a retrospective change of accounting policies, the adjustment for previous periods is recognised in the opening balance sheet value of the retained earnings and comparable items of the earliest reported period. Unrealised gains and losses from the fair value measurement of financial instruments held as available for sale are carried in cumulative other comprehensive income under unrealised gains and losses on investments. Translation differences resulting from the currency translation of separate financial statements of foreign subsidiaries are recognised under cumulative foreign currency translation adjustments.

Non-controlling interests are shares in the equity of affiliated companies not held by companies belonging to the Group. IAS 1 "Presentation of Financial Statements" requires that non-controlling interests be recognised separately within Group shareholders' equity. The non-controlling interest in profit or loss is shown separately following the net income. Further information is provided in section 6.14 "Non-controlling interests".

Disclosures about financial instruments: IFRS 7 "Financial Instruments: Disclosures" requires more extensive disclosures according to classes of financial instruments. In this context, the term "class" refers to the classification of financial instruments according to their risk characteristics. A minimum distinction is required here between measurement at amortised cost or at fair value. A more extensive or divergent distinction should, however, be geared to the purpose of the corresponding disclosures in the notes. In contrast, the term "category" is used within the meaning of the measurement categories defined in IAS 39 "Financial Instruments: Recognition and Measurement" (held to maturity, loans and receivables, available for sale and financial assets at fair value through profit or loss with the subcategories of trading and designated financial instruments). Essentially, the following classes of financial instruments are established:

- Fixed-income securities
- Equities, equity funds and other variable-yield securities
- Other financial assets – at fair value through profit or loss
- Certain financial assets in the balance sheet item "Real estate and real estate funds"
- Other invested assets
- Short-term investments
- Certain financial assets in the balance sheet item "Other assets"
- Certain financial assets in the balance sheet item "Other liabilities"
- Long-term debt
- Subordinated debt

This grouping into classes is not, however, solely determinative for the type and structure of each disclosure in the notes. Rather, guided by the underlying business model of reinsurance, the disclosures are made on the basis of the facts and circumstances existing in the financial year and in light of the principle of materiality.

Currency translation: financial statements of Group subsidiaries were drawn up in the currencies corresponding to the economic environment in which each subsidiary primarily operates. These currencies are referred to as functional currencies. The euro is the reporting currency in which the consolidated financial statement is prepared.

Transactions in foreign currencies reported in Group companies' individual financial statements are converted into the functional currency at the transaction rate. In accordance with IAS 21 "The Effects of Changes in Foreign Exchange Rates" the recognition of exchange differences on translation is guided by the nature of the underlying balance sheet item. Exchange differences from the translation of monetary assets and liabilities are recognised directly in the statement of income. Currency translation differences from the translation of non-monetary assets measured at fair value via the statement of income are recognised with the latter as profit or loss from fair value measurement changes. Exchange differences from non-monetary items – such as equity securities – classified as available for sale are initially recognised outside income in a separate item of shareholders' equity and only booked to income when such non-monetary items are settled.

The individual companies' statements of income prepared in the local currencies are converted into euro at the average rates of exchange and transferred to the consolidated financial statement. The conversion of foreign currency items in the balance sheets of the individual companies and the transfer of these items to the consolidated financial statement are effected at the mean rates of exchange on the balance sheet date. In accordance with IAS 21 "The Effects of Changes in Foreign Exchange Rates" differences from the currency translation of financial statements of foreign Group companies must be recognised in the consolidated financial statement as a separate item in shareholders' equity.

Currency translation differences resulting from long-term loans or lendings without specified maturity between Group companies are similarly recognised outside the statement of income in a separate item of shareholders' equity.

Key exchange rates N09

1 EUR corresponds to:	31.12.2017	31.12.2016	2017	2016
	Mean rate of exchange on the balance sheet date		Average rate of exchange	
AUD	1.5347	1.4591	1.4772	1.4858
BHD	0.4523	0.3972	0.4263	0.4155
CAD	1.5047	1.4191	1.4677	1.4630
CNY	7.8051	7.3206	7.6306	7.3246
GBP	0.8875	0.8553	0.8744	0.8162
HKD	9.3728	8.1753	8.8091	8.5567
INR	76.6076	71.6081	73.6295	74.0700
KRW	1,280.3000	1,266.9800	1,276.2746	1,278.7281
MYR	4.8552	4.7293	4.8507	4.5774
SEK	9.8387	9.5524	9.6370	9.4499
USD	1.1994	1.0540	1.1305	1.1025
ZAR	14.8140	14.4632	15.0052	16.1886

Earned premium and unearned premium: assumed reinsurance premiums, commissions and claim settlements as well as assumed portions of the technical reserves are recognised according to the terms and conditions of the reinsurance treaties, giving due consideration to the underlying contracts for which reinsurance was taken out.

Ceded reinsurance premiums are deducted from the gross written premium for the purpose of reconciliation to net premium earned. Assets and liabilities in connection with reinsurance ceded are recognised on a gross basis. The reinsured portions of the reserves are estimated on a basis consistent with the reserves attributable to the reinsured risk. Income and expenses in connection with reinsurance treaties are recognised on a basis consistent with the underlying risk of the reinsured business.

Premiums for reinsurance treaties are booked to income as earned across the period of the contracts in proportion to the insurance protection already provided or when they become due. Unearned premiums are calculated individually for each treaty in order to establish the portion of the premium volume that is not booked to income. This applies principally to property and casualty reinsurance and parts of accident and health reinsurance. Premiums already collected that are attributable to future risk periods are deferred pro rata temporis and recognised in conformity with the pertinent standards of US GAAP. In this context, assumptions are to be made if the data required for a calculation pro rata temporis is not available. The unearned premium corresponds to the insurance protection afforded in future periods.

Taxes: the taxes are comprised of the actual tax load on corporate profits of the Group companies, to which the applicable local tax rates are applied, as well as changes in deferred tax assets and liabilities. Income and expenses arising out of interest or penalties payable to the revenue authorities are shown under other income and expenses. The calculation of the deferred tax assets and liabilities is based on tax loss carry-forwards, unused tax credits and temporary differences between the book values of assets and liabilities in the consolidated balance sheet of the Hannover Re Group and their tax values. Further information on deferred taxes is provided in our remarks on deferred tax assets and liabilities.

Non-current assets held for sale and discontinued operations: in accordance with IFRS 5 "Non-current Assets Held for Sale and Discontinued Operations", non-current assets and disposal groups are classified as held for sale if the relevant book value is realised largely through sale rather than through continued use. Components of an entity that can be clearly distinguished from the rest of the entity for operational and accounting purposes and were classified as sold or for sale are recognised as discontinued operations. Measurement is at the lower of book value and fair value less costs to sell. Scheduled depreciation is not taken on non-current assets classified as held for sale. Impairment losses on fair value less costs to sell are recognised in profit or loss; a gain for any subsequent increase in fair value less costs to sell leads to the realisation of profit up to the amount of the cumulative impairment. If the impairment loss to be taken on a disposal group exceeds the book value of the corresponding non-current assets, the need to establish a provision within the meaning of IAS 37 "Provisions, Contingent Liabilities and Contingent Assets" is reviewed.

3.3 Major discretionary decisions and estimates

In the consolidated financial statement it is to some extent necessary to make estimates and assumptions which affect the assets and liabilities shown in the balance sheet, the information on contingent claims and liabilities as at the balance sheet date and the disclosure of income and expenses during the reporting period. Key facts and circumstances subject to such assumptions and estimates include, for example, the recoverability of contingent reinsurance liabilities, the recoverability of investments in associated companies, the valuation of derivative financial instruments as well as assets and liabilities relating to employee benefits. The actual amounts may diverge from the estimated amounts.

Supplementary or complete estimates of the corresponding profit and loss items, assets and liabilities including relevant retrocessions are made where ceding company accounts with substantial premium income are missing. Missing ceding company accounts with a low premium volume are included in the following year.

In order to measure the ultimate liability in property and casualty reinsurance the expected ultimate loss ratios are calculated for all lines. Actuarial methods such as the "chain ladder" method provide the starting point for these calculations. The realistically estimated future settlement amount is recognised in the balance sheet. The development until completion of the run-off is projected on the basis of statistical triangles from the original notifications of ceding companies. The more recent underwriting years in actuarial projections are of course subject to greater uncertainty, although this can be considerably reduced with the aid of a variety of additional information on improvements in the rates and conditions of the business written and on loss trends. The amounts arrived at as the difference between the ultimate losses and the reported losses are set aside as the IBNR reserve for losses that have been incurred but are not yet known or have still to be reported. In applying statistical methods, separate consideration is given to large losses.

By analysing a broad range of observable information it is possible to classify losses as major individual loss events. Measurement of the obligations existing in this connection is carried out using a separate process, which is based largely on contract-specific estimates.

For further details, for example concerning the modelling of natural catastrophe scenarios and the assumptions relating to asbestos and pollution risks, the reader is referred to our comments in the risk report on page 78 et seq. We would further refer to our explanatory remarks on the technical reserves in section 3.2 "Summary of major accounting policies" and section 6.7 "Technical provisions".

In life business, too, the calculation of reserves and assets is crucially dependent on actuarial projections of the covered business. So-called model points are defined according to the type of business covered. The main distinguishing criteria are the age, sex and (non-)smoker status of the insured, tariff, policy period, period of premium payment and amount of insurance. The portfolio development is simulated for each model point, in which regard the key input parameters are either predefined by the tariff (e. g. allowance for costs, amount of premium, actuarial interest rate) or need to be estimated (e. g. mortality or disability rates, lapse rates). These assumptions are heavily dependent on country-specific parameters and on the sales channel, quality of the cedant's underwriting and claims handling, type of reinsurance and other framework conditions of the reinsurance treaty. The superimposition of numerous model points gives rise to a projection, which incorporates inter alia assumptions concerning the portfolio composition and the commencement of covered policies within the year. Such assumptions are estimated at the inception of a reinsurance treaty and subsequently adjusted to the actual projection.

The projections, which cover various model scenarios ("conservative assumptions" versus "best estimate"), constitute the starting point for numerous areas of application encompassing quotation, the determination of carrying amounts and embedded values as well as contract-specific analyses, e. g. regarding the appropriateness of the recognised reinsurance liabilities ("liability adequacy test"). In this context we would refer the reader to our comments on technical assets and provisions in section 3.2 "Summary of major accounting policies" and on the liability adequacy tests in section 6.7 "Technical provisions".

In determining the carrying amounts for certain financial assets it is sometimes necessary to make assumptions in order to calculate fair values. In this regard we would refer the reader to our remarks in section 3.2 "Summary of major accounting policies" concerning financial assets at fair value through profit or loss and securities held as available for sale as well as in section 6.1 "Investments under own management" concerning investment property. Assumptions concerning the appropriate applicability criteria are necessary when determining the need for impairments on non-monetary financial assets held as available for sale. In this regard we would again refer the reader to our explanatory remarks in section 3.2 "Summary of major accounting policies".

4. Consolidation

4.1 Consolidation principles

Capital consolidation

The capital consolidation is carried out according to the requirements of IFRS 10 "Consolidated Financial Statements" on the basis of a consistent consolidation model for all entities that identifies control as the single basis for verifying the consolidation requirement, irrespective of whether control is substantiated in company law, contractually or economically. Group companies are consolidated from the point in time when Hannover Re gains control over them. Control exists if Hannover Re directly or indirectly has decision-making power over a Group company on the basis of voting rights or other rights, if it has exposure or rights to positive and negative variable returns from its involvement with the Group company and if it can use its power to influence these returns. All of these criteria must be met. Other circumstances may also give rise to control, for example the existence of a principal-agent relationship. In this case a party outside the Group with decision-making powers (agent) acts for Hannover Re, but does not control the company since it merely exercises decision-making powers that have been delegated by Hannover Re (principal). These principles are also applied to structured entities, on which further information is provided in section 4.2 "Consolidated companies and complete list of shareholdings". Group companies are consolidated until the Hannover Re Group loses control over them. The accounting policies of Group companies are adjusted, where necessary, in order to ensure consistent application of the Hannover Re Group's accounting policies.

The capital consolidation is based on the acquisition method. In the context of the acquisition method the acquisition costs, measured at the fair value of the consideration rendered by the parent company on the acquisition date, are netted with the proportionate shareholders' equity of the subsidiary at the time when it is first included in the consolidated financial statement after the revaluation of all assets and liabilities. After recognition of all acquired intangible assets that in accordance with IFRS 3 "Business Combinations" are to be accounted for separately from goodwill, the difference between the revalued shareholders' equity of the subsidiary and the purchase price is recognised as goodwill. Under IFRS 3 scheduled amortisation is not taken on goodwill. Instead, impairment is taken where necessary on the basis of annual impairment tests. Immaterial and negative goodwill are recognised in the statement of income in the year of their occurrence. Costs associated with acquisition are expensed.

Companies over which Hannover Re is able to exercise a significant influence are consolidated as associated companies using the equity method of accounting. We therefore measure investments in associated companies with the proportion of the shareholders' equity attributable to the Group. According to the proportionate interest method required by IAS 28 "Investments in Associates", the goodwill attributable to associated companies is recognised together with the investments in associated companies. The share of an associated company's year-end profit or loss relating to the Group is included in the income from investments and shown separately in the consolidated statement of income. Shareholders' equity and profit or loss are taken from the associated company's latest available financial statement. A significant influence is presumed to exist if a company belonging to the Hannover Re Group directly or indirectly holds at least 20% – but no more than 50% – of the voting rights. We also derive evidence of significant influence over an associated company from representation on a governing body of such company, participation in its policy-making processes – e. g. with respect to dividends or other distributions –, the existence of material inter-company transactions, the possibility of interchanging managerial personnel or the provision of key technical information for the company. Further particulars on companies consolidated using the equity method of accounting are provided in section 6.1 "Investments under own management" under "Associated companies".

Only subsidiaries which are of minor importance – both individually and in their entirety – for the net assets, financial position and results of operations of the Hannover Re Group are exempted from consolidation. Hannover Re assesses whether a subsidiary is of minor importance on the basis of the company's total assets and net income relative to the corresponding values for the Group as a whole on average over the last three years. For this reason 14 (19) companies at home and abroad were not consolidated in the year under review. A further 4 (5) individual companies as well as 2 (2) subgroup accounts with altogether 17 (13) individual companies were not included at equity in the consolidated financial statement for the same reason. The business object of these altogether 35 (37) companies is for the most part the rendering of services for reinsurance companies within the Group.

Consolidation of business transactions within the Group

Receivables and liabilities between the companies included in the consolidated financial statement were offset against each other. Profits and expenses from business transactions within the Group were also eliminated.

Transactions between a disposal group and the continuing operations of the Group were similarly eliminated in accordance with IFRS 10.

4.2 Consolidated companies and complete list of shareholdings

In addition to Hannover Rück SE as the parent company of the Group, the scope of consolidation of the Hannover Re Group encompasses the companies listed in the table below.

Information on subsidiaries

Scope of consolidation **N 10**

Number of companies	2017	2016
Consolidated companies (Group companies)		
Germany	16	21
Abroad	98	65
Total	**114**	**86**
Companies included at equity		
Germany	2	2
Abroad	5	4
Total	**7**	**6**

Information on the non-controlling interests in shareholders' equity and profit or loss as well as on the major non-controlling interests is provided in section 6.14 "Non-controlling interests". On the balance sheet date there were no significant restrictions on access to or the use of Group assets due to protective rights in favour of non-controlling interests.

The sale or transfer of shares of E+S Rückversicherung AG takes place by way of an endorsement and is permissible only with the approval of the company's Supervisory Board. The Supervisory Board enjoys the right to grant or deny approval unconditionally, without being obliged to state reasons in the event of denial.

National provisions of company law or requirements of supervisory law may in certain countries limit the ability of the Hannover Re Group to transfer assets between companies belonging to the Group. These limitations result principally from local minimum capital and solvency requirements as well as to a lesser extent from foreign exchange restrictions.

As security for our technical liabilities and as collateral for liabilities arising out of existing derivative transactions Hannover Re has established blocked custody accounts and trust accounts in certain countries, while for liabilities in connection with real estate transactions – to the extent that is customary under such transactions – it has pledged assets in favour of third parties outside the Group. For further information please see our explanatory remarks in section 8.7 "Contingent liabilities and commitments".

List of shareholdings

The following list of shareholdings is provided in the present Group annual financial report in accordance with § 313 Para. 2 German Commercial Code (HGB). The stipulations of IFRS 12.10 and IFRS 12.21 have also been observed.

The figures for the capital and reserves as well as the result for the last financial year are taken from the local financial statements drawn up by the companies.

With regard to the major acquisitions and disposals in the year under review please see our remarks in the following paragraphs of this section.

List of shareholdings N 11

Name and registered office of the company in currency units of 1,000	Participation in %	Currency	Capital and reserves	Result for the last financial year
Domestic companies				
Affiliated consolidated companies				
Hannover Rück Beteiligung Verwaltungs-GmbH [1,2], Hannover/Germany	100.00	EUR	2,341,925	–
Hannover Life Re AG [1,2], Hannover/Germany	100.00	EUR	1,911,179	–
HILSP Komplementär GmbH [3], Hannover/Germany	100.00	EUR	34	2
International Insurance Company of Hannover SE [1,2], Hannover/Germany	100.00	EUR	168,845	–
Hannover Insurance-Linked Securities GmbH & Co. KG [3], Hannover/Germany	100.00	EUR	20,382	6
FUNIS GmbH & Co. KG [1], Hannover/Germany	100.00	EUR	86,196	(4,303)
HR Verwaltungs-GmbH [1], Hannover/Germany	100.00	EUR	8	(4)
Hannover America Private Equity Partners II GmbH & Co. KG [1], Hannover/Germany	95.42	EUR	331,514	84,908
HAPEP II Holding GmbH [1], Hannover/Germany	95.42	EUR	3,905	2,403
Hannover Re Global Alternatives GmbH & Co. KG [1], Hannover/Germany	94.72	EUR	156,919	1,558
Hannover Re Euro PE Holdings GmbH & Co. KG [1], Hannover/Germany	91.20	EUR	299,017	59,712
Hannover Re Euro RE Holdings GmbH [1], Hannover/Germany	87.68	EUR	979,041	33,720
HR GLL Central Europe GmbH & Co. KG [1], Munich/Germany	87.67	EUR	453,798	5,392
HR GLL Central Europe Holding GmbH [1], Munich/Germany	87.67	EUR	60,246	1,276
HAPEP II Komplementär GmbH [1], Hannover/Germany	82.40	EUR	41	3
E+S Rückversicherung AG [1], Hannover/Germany	64.79	EUR	922,413	351,000
Affiliated non-consolidated companies				
Oval Office Grundstücks GmbH [1,4], Hannover/Germany	50.00	EUR	628	15

Name and registered office of the company in currency units of 1,000	Participation in %	Currency	Capital and reserves	Result for the last financial year
Associated companies				
WeHaCo Unternehmensbeteiligungs-GmbH [5], Hannover/Germany	32.96	EUR	89,440	16,232
HANNOVER Finanz GmbH [5], Hannover/Germany	27.78	EUR	81,509	18,078
Other participations				
Perseus Technologies GmbH [6], Berlin/Germany	19.98	EUR	–	–
FinLeap GmbH [5], Berlin/Germany	11.52	EUR	25,253	(3,470)
Internationale Schule Hannover Region GmbH [7], Hannover/Germany	9.17	EUR	4,210	521
Nürnberger Beteiligungs-Aktiengesellschaft [5], Nuremberg/Germany	1.75	EUR	638,839	43,245
Foreign companies				
Affiliated consolidated companies				
Hannover Finance (Luxembourg) S.A., Luxembourg/Luxembourg	100.00	EUR	35,052	654
Hannover Finance (UK) Limited [1], London/United Kingdom	100.00	GBP	2,694	(9)
Hannover Life Reassurance Bermuda Ltd. [1], Hamilton/Bermuda	100.00	USD	443,699	52,393
Hannover Life Reassurance Company of America, Orlando/USA	100.00	USD	411,166	45,624
Hannover Life Reassurance Company of America (Bermuda) Ltd., Hamilton/Bermuda	100.00	USD	10,370	2,193
Hannover Re (Ireland) Designated Activity Company [1], Dublin/Ireland	100.00	USD	1,426,073	(282,260)
Hannover Life Re of Australasia Ltd [1], Sydney/Australia	100.00	AUD	495,812	15,075
Hannover Re (Bermuda) Ltd. [1], Hamilton/Bermuda	100.00	USD	1,209,893	128,058
Hannover ReTakaful B.S.C. (c) [1], Manama/Bahrain	100.00	BHD	72,699	6,507
Hannover Services (UK) Limited [1], London/United Kingdom	100.00	GBP	893	126
Inter Hannover (No. 1) Limited [1], London/United Kingdom	100.00	GBP	(66)	–
Integra Insurance Solutions Limited [1], Bradford/United Kingdom	100.00	GBP	4,990	184
Argenta Holdings Limited [1, 8], London/United Kingdom	100.00	GBP	43,121	10,741
Argenta Private Capital Limited [1, 8], London/United Kingdom	100.00	GBP	6,827	4,026
APCL Corporate Director No. 1 Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
APCL Corporate Director No. 2 Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
Argenta Insurance Research Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
Fountain Continuity Limited [1, 8], Edinburgh/United Kingdom	100.00	GBP	–	–

Name and registered office of the company in currency units of 1,000	Participation in %	Currency	Capital and reserves	Result for the last financial year
Names Taxation Service Limited [1, 8], London/United Kingdom	100.00	GBP	10	–
Argenta Secretariat Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
Argenta Continuity Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
Argenta General Partner Limited [1, 8], Edinburgh/United Kingdom	100.00	GBP	–	–
Argenta LLP Services Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
Argenta SLP Continuity Limited [1, 8], Edinburgh/United Kingdom	100.00	GBP	–	–
Argenta Syndicate Management Limited [1, 8], London/United Kingdom	100.00	GBP	7,462	2,019
Argenta Tax & Corporate Services Limited [1, 8], London/United Kingdom	100.00	GBP	1,105	400
Argenta Underwriting No. 1 Limited [1, 8], London/United Kingdom	100.00	GBP	22	–
Argenta Underwriting No. 2 Limited [1, 8], London/United Kingdom	100.00	GBP	4,971	656
Argenta Underwriting No. 3 Limited [1, 8], London/United Kingdom	100.00	GBP	1,933	1,702
Argenta Underwriting No. 4 Limited [1, 8], London/United Kingdom	100.00	GBP	(152)	–
Argenta Underwriting No. 7 Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
Argenta Underwriting No. 8 Limited [1, 8], London/United Kingdom	100.00	GBP	(22)	(1)
Argenta Underwriting No. 9 Limited [1, 8], London/United Kingdom	100.00	GBP	1,379	763
Argenta Underwriting No. 10 Limited [1, 8], London/United Kingdom	100.00	GBP	(36)	(7)
Argenta Underwriting No. 11 Limited [1, 8], London/United Kingdom	100.00	GBP	(32)	(7)
Argenta No. 13 Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
Argenta No. 14 Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
Argenta No. 15 Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
Residual Services Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
Residual Services Corporate Director Limited [1, 8], London/United Kingdom	100.00	GBP	–	–
Argenta Underwriting Asia Pte. Ltd. [1, 8], Singapore/Singapore	100.00	SGD	1,200	(340)
Argenta Underwriting Labuan Ltd [1, 8], Labuan/Malaysia	100.00	USD	75	(3)
Glencar Underwriting Managers, Inc. [1], Chicago/USA	100.00	USD	5,148	325
Leine Investment General Partner S.à r.l. [1, 8], Luxembourg/Luxembourg	100.00	EUR	877	327
Leine Investment SICAV-SIF [1, 8], Luxembourg/Luxembourg	100.00	USD	64,430	1,113

Name and registered office of the company in currency units of 1,000	Participation in %	Currency	Capital and reserves	Result for the last financial year
LI RE [1, 8], Hamilton/Bermuda	100.00	USD	–	–
Fracom FCP [10], Paris/France	100.00	EUR	1,263,897	14,655
Hannover Finance, Inc. [1, 8], Wilmington/USA	100.00	USD	164,494	1,020
Sand Lake Re, Inc. [1], Burlington/USA	100.00	USD	11,977	(177,565)
Hannover Reinsurance Group Africa (Pty) Ltd. [1], Johannesburg/South Africa	100.00	ZAR	206,527	111,707
Hannover Life Reassurance Africa Limited [1], Johannesburg/South Africa	100.00	ZAR	534,324	39,302
Hannover Reinsurance Africa Limited [1], Johannesburg/South Africa	100.00	ZAR	764,519	31,582
Compass Insurance Company Limited [1], Johannesburg/South Africa	100.00	ZAR	214,943	28,611
Hannover Re Real Estate Holdings, Inc. [8], Orlando/USA	95.25	USD	771,070	6,885
HR US Infra Equity LP [1, 8], Wilmington/USA	95.25	USD	–	–
320AUS LLC [1, 8], Wilmington/USA	95.15	USD	94,093	424
GLL HRE CORE Properties, L.P. [1, 8], Wilmington/USA	95.15	USD	618,198	(328)
101BOS LLC [1, 8], Wilmington/USA	95.15	USD	51,644	1,623
402 Santa Monica Blvd, LLC [1, 8], Wilmington/USA	95.15	USD	(28)	947
111ORD LLC [1, 8], Wilmington/USA	95.15	USD	72,463	2,133
140EWR LLC [1, 8], Wilmington/USA	95.15	USD	64,279	(15,123)
7550IAD LLC [1, 8], Wilmington/USA	95.15	USD	70,511	(2,250)
Nashville West, LLC [1, 8], Wilmington/USA	95.15	USD	29,160	1,520
1225 West Washington, LLC [1, 8], Wilmington/USA	95.15	USD	24,467	385
975 Carroll Square, LLC [1, 8], Wilmington/USA	95.15	USD	49,898	1,253
Broadway 101, LLC [1, 8], Wilmington/USA	95.15	USD	13,176	658
River Terrace Parking, LLC [1, 8], Wilmington/USA	95.15	USD	19,550	522
3290ATL LLC [1, 8], Wilmington/USA	95.15	USD	71,075	2,913
HR US Infra Debt LP [1, 8], George Town/Cayman Islands	94.72	USD	53,609	182
PAG Real Estate Asia Select Fund Limited [1], George Town/Cayman Islands	94.72	USD	72,360	(669)
Orion No.1 Professional Investors Private Real Estate Investment LLC [1], Seoul/South Korea	94.39	USD	145,610	312
Peace G.K. [1], Tokyo/Japan	93.77	JPY	5,186,767	52,767

Name and registered office of the company in currency units of 1,000	Participation in %	Currency	Capital and reserves	Result for the last financial year
Kaith Re Ltd.[1], Hamilton/Bermuda	88.00	USD	554	(360)
3541 PRG s.r.o.[1], Prague/Czech Republic	87.67	CZK	871,309	(5,458)
Mustela s.r.o.[1], Prague/Czech Republic	87.67	CZK	1,181,309	26,998
HR GLL Roosevelt Kft[1], Budapest/Hungary	87.67	HUF	19,012,206	(87,935)
HR GLL Liberty Corner SPÓLKA Z OGRANICZONA ODPOWIEDZIALNÓSCIA[1], Warsaw/Poland	87.67	PLN	49,385	3,413
HR GLL Griffin House SPÓLKA Z OGRANICZONA ODPOWIEDZIALNÓSCIA[1], Warsaw/Poland	87.67	PLN	37,478	2,355
92601 BTS s.r.o.[1], Bratislava/Slovakia	87.67	EUR	1,983	(1,413)
Akvamarín Beta s.r.o.[1], Prague/Czech Republic	87.67	CZK	98,774	45,809
HR GLL Europe Holding S.à r.l.[1], Luxembourg/Luxembourg	87.67	EUR	198,268	1,617
HR GLL CDG Plaza S.r.l.[1], Bucharest/Romania	87.67	RON	151,086	5,002
Pipera Business Park S.r.l.[1], Bucharest/Romania	87.67	RON	86,254	7,377
Commercial & Industrial Acceptances (Pty) Ltd.[1], Johannesburg/South Africa	79.20	ZAR	13,333	18,653
Lireas Holdings (Pty) Ltd.[1], Johannesburg/South Africa	70.00	ZAR	209,880	22,943
MUA Insurance Acceptances (Pty) Ltd.[1], Cape Town/South Africa	70.00	ZAR	6,033	5,608
Svedea AB[1], Stockholm/Sweden	53.00	SEK	16,387	10,058
SUM Holdings (Pty) Ltd.[1], Johannesburg/South Africa	50.54	ZAR	25,059	5,326
Firedart Engineering Underwriting Managers (Pty) Ltd.[1], Johannesburg/South Africa	49.00	ZAR	1,845	1,234
Garagesure Consultants and Acceptances (Pty) Ltd.[1], Johannesburg/South Africa	49.00	ZAR	884	2,120
Thatch Risk Acceptances (Pty) Ltd., Johannesburg/South Africa	49.00	ZAR	2,122	4,489
Landmark Underwriting Agency (Pty) Ltd.[1], Bloemfontein/South Africa	45.85	ZAR	4,685	1,945
Hospitality Industrial and Commercial Underwriting Managers (Pty) Ltd.[1], Johannesburg/South Africa	45.49	ZAR	1,764	6,536
Construction Guarantee (Pty) Ltd.[4, 11], Johannesburg/South Africa	42.00	ZAR	–	–
Transit Underwriting Managers (Pty) Ltd.[1], Cape Town/South Africa	39.67	ZAR	(20)	(435)
Envirosure Underwriting Managers (Pty) Ltd., Durban/South Africa	35.70	ZAR	3,803	591
Synergy Targeted Risk Solutions (Pty) Ltd[4, 5], Johannesburg/South Africa	35.70	ZAR	2,042	–
Film & Entertainment Underwriters SA (Pty) Ltd.[1], Johannesburg/South Africa	35.70	ZAR	(12)	697

Name and registered office of the company in currency units of 1,000	Participation in %	Currency	Capital and reserves	Result for the last financial year
Affiliated non-consolidated companies				
International Mining Industry Underwriters Limited [1], London / United Kingdom	100.00	GBP	225	–
HR Hannover Re, Correduría de Reaseguros, S. A. [1], Madrid / Spain	100.00	EUR	497	48
Mediterranean Reinsurance Services Ltd. [4, 12], Hong Kong / China	100.00	USD	52	–
Hannover Re Services Japan [1], Tokyo / Japan	100.00	JPY	126,916	12,563
Hannover Re Consulting Services India Private Limited [13], Mumbai / India	100.00	INR	112,771	10,978
Hannover Services (México) S. A. de C. V. [5], Mexico City / Mexico	100.00	MXN	6,524	150
Hannover Re Services USA, Inc., Itasca / USA	100.00	USD	3,781	307
Hannover Mining Engineering Services LLC, Itasca / USA	100.00	USD	300	–
Hannover Rück SE Escritório de Representação no Brasil Ltda. [5], Rio de Janeiro / Brazil	100.00	BRL	3,408	485
Hannover Re Risk Management Services India Private Limited [13], New Delhi / India	100.00	INR	59,598	(8,347)
Hannover Re Services Italy S. r. l., Milan / Italy	99.65	EUR	368	110
U FOR LIFE SDN. BHD. [1], Petaling Jaya / Malaysia	60.00	MYR	(21,304)	(8,638)
HMIA Pty Ltd [1], Sydney / Australia	55.00	AUD	1,069	1,081
Svedea Skadeservice AB [5], Stockholm / Sweden	53.00	SEK	284	–
Associated companies				
ITAS Vita S. p.A. [5], Trento / Italy	34.88	EUR	100,880	2,719
Clarendon Transport Underwriting Managers (Pty) Ltd. [1], Johannesburg / South Africa	29.40	ZAR	18,512	12,833
Clarenfin (Pty) Ltd. [1], Johannesburg / South Africa	29.40	ZAR	120	(5)
Vela Taxi Finance (Pty) Ltd [1], Johannesburg / South Africa	16.17	ZAR	(3,922)	(1,078)
Marmic Taxi Parts (Pty) Ltd [1], Durban / South Africa	8.82	ZAR	2,484	2,484
Other participations				
Reaseguradora del Ecuador S. A. [1], Guayaquil / Equador	30.00	USD	16,865	1,977
Energi, Inc. [5], Peabody / USA	28.50	USD	(65)	(20,941)
Sureify Labs, Inc. [1, 7], Wilmington / USA	20.66	USD	622	(2,148)
Meribel Topco Limited [1], St. Helier / Jersey	20.11	EUR	844	(70)
Monument Insurance Group Limited [1], Hamilton / Bermuda	20.00	USD	628	(67)
Trinity Underwriting Managers Ltd. [1, 5], Toronto / Canada	20.00	CAD	(1,711)	29

Name and registered office of the company in currency units of 1,000	Participation in %	Currency	Capital and reserves	Result for the last financial year
Inlife Holding (Liechtenstein) AG[5], Triesen/Liechtenstein	15.00	CHF	3,608	15,645
Life Invest Holding AG[1, 14], Zurich/Switzerland	15.00	CHF	38,776	36,776
Somerset Reinsurance Ltd.[5], Hamilton/Bermuda	12.31	USD	350,157	(5,602)
Qinematic AB[5], Lidingö/Sweden	10.71	SEK	(2,740)	(2,107)
Acte Vie S.A.[5], Schiltigheim/France	9.38	EUR	9,258	170
Centaur Animal Health, Inc.[15], Olathe/USA	6.90	USD	1,886	202
Kopano Ventures (Pty) Ltd[6], Johannesburg/South Africa	4.61	ZAR	–	–
Liberty Life Insurance Public Company Ltd[5], Nicosia/Cyprus	3.30	EUR	7,873	(2,504)

1 Provisional (unaudited) figures
2 Year-end result after profit transfer
3 Financial year as at 30 September 2017
4 Company is in liquidation
5 Figures as at 31 December 2016
6 Company was newly established in 2017; an annual financial statement is not yet available.
7 Financial year as at 31 July 2017
8 IFRS figures
9 The company holds 35 subsidiaries with capital and reserves of altogether EUR 0.5 million.
10 Financial year as at 31 October 2017
11 Figures as at 31 December 2013
12 Figures as at 31 December 2015
13 Financial year as at 31 March 2017
14 Financial year from 8 May 2015 to 31 December 2016
15 Financial year as at 30 June 2017

Material branches of the Group

We define the branch of a Group company as an unincorporated business unit that is physically and organisationally separate from the Group company, is bound by the latter's instructions in their internal relationship and has its own independent market presence.

The Hannover Re Group companies listed in the following table maintain branches that we consider to be material to an understanding of the Group's position.

Material branches of the Group N 12

Group company/Branch	Gross written premium [1]		Net income [1]	
Figures in EUR thousand	2017	2016	2017	2016
Hannover Rück SE				
Hannover Rueck SE Australian Branch, Sydney/Australia	220,125	170,556	(1,737)	11,261
Hannover Rück SE Canadian Branch, Toronto/Canada	225,366	254,702	23,472	34,712
Hannover Rück SE, Hong Kong Branch, Wanchai/Hong Kong	288,928	260,814	15,456	17,858
Hannover Rueck SE Malaysian Branch, Kuala Lumpur/Malaysia	376,970	427,194	10,363	27,222
Hannover Rück SE, Tyskland Filial, Stockholm/Sweden	242,045	235,154	29,188	21,719
Hannover Rück SE Succursale Francaise, Paris/France	777,357	710,352	26,197	34,762
Hannover Rueck SE Bahrain Branch, Manama/Bahrain	125,675	129,902	(414)	1,258
Hannover Rück SE Shanghai Branch, Shanghai/China	775,684	697,727	8,325	11,466
Hannover Rück SE Korea Branch, Seoul/South Korea	47,134	46,789	3,315	2,086
Hannover Re UK Life Branch, London/United Kingdom	298,933	284,357	(31,338)	12,356
Hannover Rück SE India Branch, Mumbai/India [2]	58,437	–	(2,547)	–
International Insurance Company of Hannover SE				
International Insurance Company of Hannover SE, Australian Branch, Sydney/Australia	62,296	32,558	2,151	59
International Insurance Company of Hannover SE, Canadian Branch, Toronto/Canada	54,364	65,761	417	1,036
International Insurance Company of Hannover SE, Italian Branch, Milan/Italy [3]	–	–	–	–
International Insurance Company of Hannover SE, Scandinavian Branch, Stockholm/Sweden	198,462	192,910	108	4,249
International Insurance Company of Hannover SE, UK Branch, London/United Kingdom	368,196	333,358	(200)	3,532

1 IFRS figures before consolidation
2 Branch was newly established in 2017.
3 Branch is in liquidation.

In addition, other companies belonging to the Hannover Re Group maintain further branches in New Zealand, Canada and Malaysia that both individually and collectively are to be classified as immaterial to the Group.

Consolidation of structured entities

Business relations with structured entities are to be examined in accordance with IFRS 10 with an eye to their implications for consolidation. In the context of their operational activities some companies belonging to the Hannover Re Group enter into business relations with structured entities that are to be analysed and accounted for according to these new provisions.

Structured entities are entities designed in such a way that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. A structured entity frequently has some or all of the following features or attributes:

- Restricted activities;
- A narrow and well-defined business objective;
- Insufficient equity to allow it to finance its activities without subordinated financial support;
- Financing in the form of multiple contractually linked instruments issued to investors that create concentrations of credit or other risks (tranches).

In accordance with the consistent consolidation model, a structured entity – just like a subsidiary – must be consolidated if Hannover Re gains control over the said entity. With regard to the criteria for control please see also section 4.1 "Consolidation principles". Within the Hannover Re Group the requirement to consolidate structured entities is examined as part of an analysis that encompasses both transactions in which a structured entity is initiated by us with or without the involvement of third parties and those in which we enter into contractual relations with an already existing structured entity with or without the involvement of third parties. Consolidation decisions are reviewed as necessary and at least once a year. The list of all consolidated structured entities forms part of the list of shareholdings.

Consolidated structured entities

The following structured entities were consolidated as at the balance sheet date:

- Kaith Re Ltd., Hamilton, Bermuda
- LI RE, Hamilton, Bermuda

Kaith Re Ltd. is a so-called segregated accounts company (SAC), the sole object of which is the securitisation of reinsurance risks in the form of investment products. Under this transformation a complete underwriting risk transfer always takes place to the investor in question. In a SAC further segregated accounts exist under a general account; it is in these segregated accounts, which for liability purposes are entirely separate from one another and from the general account, that the aforementioned securitisations take place for the investors.

Pursuant to IFRS 10 we consider the general account and the segregated accounts to be separate units to which the principles of so-called "silo accounting" are applied. In accordance with this concept, Hannover Re is required to consolidate the general account of Kaith Re Ltd. and is contractually responsible for the fees due to external service providers that are to be covered from the general account's own funds. Each individual segregated account is to be examined separately by the parties concerned (investors) with an eye to a consolidation requirement and is to be consolidated according to the particular contractual arrangements in each case.

LI RE is a segregated account of Kaith Re Ltd., the purpose of which – as with all segregated accounts under Kaith Re Ltd. – is the securitisation of underwriting risks. In contrast to the other segregated accounts, the sole investor and hence the risk carrier of LI RE is the Hannover Re Group through its subsidiary Leine Investment SICAV-SIF, Luxembourg.

As at the balance sheet date Hannover Re had not rendered any financial or other support for a consolidated structured entity. Hannover Re does not intend to render financial or other support for one or more of such entities without being contractually required to do so.

Unconsolidated structured entities

The business relations of Hannover Re Group companies with structured entities set out below do not give rise to consolidation because the criteria for control pursuant to IFRS 10 contained in our consolidation principles are not met.

Investing activities and investments in catastrophe bonds (ILS)

Within the scope of its investment activities Hannover Re has participated since 1988 inter alia in numerous structured entities. These are predominantly special purpose entities in the form of funds, which for their part transact certain types of equity and debt capital investments. These investments encompass private equity funds, fixed income funds, collateralised debt obligations, real estate funds, index funds and other public funds. The volume of these transactions is derived from the book values of the respective investments and amounted to EUR 3,016.9 million (EUR 3,239.4 million) as at the balance sheet date. The maximum risk of loss corresponds to the book values.

Hannover Re participates through its subsidiary Leine Investment SICAV-SIF, Luxembourg, in a number of structured entities that issue catastrophe bonds for the securitisation of catastrophe risks by investing in such bonds. Leine Investment General Partner S.à.r.l. is the managing partner of the asset management company Leine Investment SICAV-SIF, the business object of which is to build, hold and manage a portfolio of insurance-linked securities (catastrophe bonds) – including for third-party investors outside the Group. In addition, a portfolio of such securities is also managed by Hannover Insurance-Linked Securities GmbH & Co. KG, Hannover. The volume of these transactions is derived from the book values of the respective investments and amounted to EUR 56.0 million (EUR 70.3 million) as at the balance sheet date. The maximum risk of loss corresponds to the book values.

Retrocession and securitisation of reinsurance risks

The securitisation of reinsurance risks takes place largely through the use of structured entities.

By way of its “K” transactions Hannover Re has raised underwriting capacity for catastrophe risks on the capital market. The “K Cession”, which was placed with investors in North and South America, Europe and Asia, involves a quota share cession on worldwide natural catastrophe business as well as aviation and marine risks. Of the total volume of the “K Cession”, a large part equivalent to EUR 349.3 million (EUR 384.4 million) was securitised via structured entities as at the balance sheet date. The transaction has an indefinite term and can be cancelled annually by the investors. Segregated accounts of Kaith Re Ltd. are used for transformer purposes for part of this transaction.

Hannover Re also uses further segregated accounts of Kaith Re Ltd. and other structured entities outside the Group for various retrocessions of both its traditional and ILS covers, which in each case are passed on to institutional investors in securitised form. The volume of these transactions is measured by the ceded exposure limit of the underlying retrocession agreements and amounted to altogether EUR 2,635.3 million (EUR 1,844.7 million) as at the balance sheet date. The structured entities are in all cases fully funded by contractually defined investments in the form of cash and equivalent liquid assets. Given that the entire exposure limit of the structured entities is therefore wholly collateralised in each case, there is no risk of loss for Hannover Re.

Collateralised fronting (ILS)

As part of its extended Insurance-Linked Securities (ILS) activities, Hannover Re has concluded so-called collateralised fronting arrangements under which risks assumed from ceding companies are passed on to institutional investors outside the Group using structured entities. The purpose of such transactions is to directly transfer clients' business. The volume of the transactions is derived from the ceded exposure limit of the underlying retrocession agreements and amounted to EUR 5,235.2 million (EUR 4,914.2 million) as at the balance sheet date. Part of the ceded exposure limit is funded and collateralised by contractually defined investments in the form of cash and equivalent liquid assets, while a further part remains uncollateralised or is collateralised by less liquid assets. The maximum risk of loss from these transactions is derived from the uncollateralised exposure limit and the credit risk of the collateral and amounted to EUR 2,775.4 million (EUR 2,860.6 million) as at the balance sheet date. This does not, however, correspond to the economic risk of loss, which is established using recognised actuarial methods. The expected loss on a modelled basis in a worst-case scenario of 10,000 years amounts to at most EUR 50.0 million (EUR 50.0 million).

The book values of the assets and liabilities from the specified transactions with unconsolidated structured entities were as follows as at the balance sheet date:

Book values from business relations with unconsolidated structured entities N 13

	31.12.2017		
in EUR thousand	General investing activities	Investment in catastrophe bonds (ILS)	Retrocession: securitisations and ILS transactions
Assets			
Fixed-income securities – held to maturity	828	–	–
Fixed-income securities – loans and receivables	6,015	–	–
Fixed-income securities – available for sale	1,734,835	–	–
Fixed-income securities – at fair value through profit or loss	–	55,952	–
Equity securities – available for sale	11,326	–	–
Real estate and real estate funds	384,693	–	–
Other invested assets	773,316	–	–
Short-term investments	105,868	–	–
Reinsurance recoverables on unpaid claims	–	–	633,344
Prepaid reinsurance premium	–	–	45,307
Accounts receivable	–	–	39,798
Total assets	**3,016,881**	**55,952**	**718,449**
Liabilities			
Reinsurance payable	–	–	231,232
Total liabilities	**–**	**–**	**231,232**

Book values from business relations with unconsolidated structured entities **N 14**

in EUR thousand	31.12.2016 General investing activities	Investment in catastrophe bonds (ILS)	Retrocession: securitisations and ILS transactions
Assets			
Fixed-income securities – held to maturity	996	–	–
Fixed-income securities – loans and receivables	11,870	–	–
Fixed-income securities – available for sale	1,782,279	–	–
Fixed-income securities – at fair value through profit or loss	–	70,291	–
Equity securities – available for sale	255,853	–	–
Real estate and real estate funds	390,207	–	–
Other invested assets	712,434	–	–
Short-term investments	85,778	–	–
Reinsurance recoverables on unpaid claims	–	–	398,113
Prepaid reinsurance premium	–	–	49,037
Accounts receivable	–	–	7,558
Total assets	**3,239,417**	**70,291**	**454,708**
Liabilities			
Reinsurance payable	–	–	241,597
Total liabilities	**–**	**–**	**241,597**

The income and expenses from business relations with unconsolidated structured entities are shown in investment income insofar as they result from general investment activities or investments in catastrophe bonds and are recognised in the technical account insofar as they are attributable to retrocessions and securitisations.

As at the balance sheet date Hannover Re had not rendered any financial or other support for an unconsolidated structured entity. Hannover Re does not intend to render financial or other support for one or more of such entities without being contractually required to do so.

With regard to commitments and obligations that we do not consider to be support, particularly outstanding capital commitments from special investments, please see our remarks in section 8.7 "Contingent liabilities and commitments".

4.3 Major acquisitions and new formations

On 20 July 2017 Hannover Re acquired all the shares in Argenta Holdings Limited, London, UK. The purchase price of the shares amounted to EUR 162.2 million. Along with this company, Hannover Re also acquired its interests in various subsidiaries. The primary business object of these companies is the assumption of insurance risks and management of Syndicate 2121 at Lloyd's. In addition, third-party services are performed for other Lloyd's syndicates and companies.

The business was included in the consolidated financial statement for the first time as at 1 July 2017. For the purposes of initial consolidation and in accordance with appropriate measurement methods, the fair values of the acquired assets and assumed liabilities were to some extent established on the basis of assumptions and estimations. The assumptions and estimates that had been made were put into concrete terms as at the balance sheet date, and initial consolidation was therefore finalised within the measurement period.

The assets and liabilities of the acquired business as at the date of initial consolidation are as follows:

Assets and liabilities of the acquired business N 15

in EUR thousand	1.7.2017
Assets	
Fixed-income securities – available for sale	70,792
Equity securities – available for sale	11,506
Other invested assets	1
Short-term investments	20,805
Cash and cash equivalents	70,781
Funds withheld	7
Reinsurance recoverables on unpaid claims	41,757
Accounts receivable	34,719
Deferred tax assets	3,759
Other assets	104,084
Accrued interest and rent	180
	358,391
Liabilities	
Loss and loss adjustment expense reserve	164,006
Reinsurance payable	8,056
Taxes	6,863
Deferred tax liabilities	15,000
Other liabilities	31,068
	224,993
Net assets	**133,398**

In view of the fact that the fair values of the recognised, identifiable assets, liabilities and contingent commitments fall short of the acquisition costs associated with the transaction, the capital consolidation gave rise to positive goodwill of EUR 28.8 million which in accordance with IFRS 3.32 results in an intangible asset and is tested annually for impairment pursuant to IAS 36. The other assets include gross receivables of EUR 11.3 million, for which no bad debt provisions were established.

The gross written premium of the assumed business from the date of initial consolidation until the balance sheet date amounted to EUR 62.3 million. For the same period a positive result in a minimal amount was booked from the assumed business.

Within the 95.2%-owned US subgroup Hannover Re Real Estate Holdings, Inc., the special purpose property company 320AUS LLC, Wilmington, was established via the subsidiary GLL HRE CORE Properties, L.P., for the purpose of real estate acquisition. An amount of roughly EUR 83.3 million was invested in this connection. In addition, Hannover Re Real Estate Holdings, Inc., Orlando, acquired an interest in HR US Infra Equity LP, Wilmington, the business object of which is to participate in US infrastructure investments.

In the third quarter of 2017 Hannover Re Global Alternatives GmbH & Co. KG, Hannover, took a 100% stake in the company PAG Real Estate Asia Select Fund Limited, George Town, Cayman Islands, for the purpose of acquiring real estate. The company acquired 99.7% of the shares in Orion No. 1 Professional Investors Private Real Estate Investment LLC, Seoul, South Korea, and 99.0% of the shares in Peace G.K., Tokyo, Japan. A total amount in the order of EUR 113.6 million was invested in this connection. In addition, Hannover Re Global Alternatives GmbH & Co. KG participated in HR US Infra Debt LP, George Town, Cayman Islands, which enters into US infrastructure investments.

In the fourth quarter of 2017 all shares in the special purpose property companies 3541 PRG s.r.o. as well as Škodův palác s.r.o., both Prague, Czech Republic, were acquired via HR GLL Europe Holding S.à.r.l., Luxembourg, for the purpose of acquiring real estate. Škodův palác was subsequently merged into 3541 PRG with no effect on Group net income. In addition, HR GLL Europe Holding S.à.r.l., Luxembourg, and HR GLL Central Europe GmbH & Co. KG, Munich, acquired all shares in the special purpose property company 92601 BTS s.r.o., Bratislava, Slovakia, in December 2017, again for the purpose of acquiring real estate. Altogether, an amount of around EUR 135 million was invested in this connection.

4.4 Major disposals and retirements

Within the US subgroup Hannover Re Real Estate Holdings, Inc., the special purpose property company 11 Stanwix LLC, Wilmington, was liquidated after the property that it held had been sold. The special purpose property company 7660SAN LLC (formerly 300 California, LLC), Wilmington, was also liquidated in the course of the year.

Hannover Rück SE and E+S Rückversicherung AG, both Hannover, each sold their 50% interests in Hannover Euro Private Equity Partners II GmbH & Co. KG and in Hannover Euro Private Equity Partners III GmbH & Co. KG, including the two subsidiaries HEPEP II Holding GmbH and HEPEP III Holding GmbH, all Cologne, effective 31 October 2017 as well as the shares in Hannover Euro Private Equity Partners IV GmbH & Co. KG, Cologne, effective 30 November 2017. Derecognition of the assets and liabilities gave rise to income of EUR 0.2 million, which was recognised in other comprehensive income.

4.5 Other corporate changes

Effective 1 February 2017 the Indian branch Hannover Rück SE – India Branch, Mumbai, commenced business operations.

In the previous year Hannover Re had acquired all the shares in the company The Congregational & General Insurance Public Limited Company (CGI), Bradford, UK, through its subsidiary International Insurance Company of Hannover SE, Hannover. Following delicensing by the national Financial Conduct Authority on 27 December 2017, CGI was transferred in its entirety to its parent company under a Part VII transfer and legally extinguished. In view of the fact that this involves an internal transaction within the Group, it does not give rise to any implications for Group net income.

Effective 21 December 2017 Hannover Life Reassurance Company of America, Orlando, USA, transferred all the shares in Hannover Life Reassurance Company of America (Bermuda) Ltd., Hamilton, Bermuda, to Hannover Finance, Inc., Wilmington, USA. This internal transaction within the Group has no implications for Group net income.

5. Segment reporting

Based on the "management approach" of IFRS 8, which requires segment information to be presented as it is reported internally to management and normally used by the chief operating decision maker to decide upon the allocation of resources to a segment and evaluate its performance, Hannover Re has identified the reportable segments of property & casualty reinsurance and life & health reinsurance. With regard to the object of business operations within the two segments please see the corresponding remarks in the management report.

The segment information shown follows the system used for internal reporting purposes, on the basis of which the full Executive Board regularly evaluates the performance of segments and decides on the allocation of resources to them.

The "Consolidation" column includes not only the elimination of cross-segment transactions but also, more significantly, companies whose business operations cannot be unambiguously allocated to property and casualty reinsurance or life and health reinsurance. These are principally the service and financing companies belonging to the Group.

During the financial year no material changes occurred in the organisational structure that could have influenced the composition of the segments. Since the performance indicators used to steer the segments correspond to the system according to which the consolidated financial statement is prepared, a separate reconciliation of the segment results with the Group result is not provided.

All companies consolidated for the first time or deconsolidated in 2017 are allocated to the property and casualty reinsurance segment.

Consolidated segment report

N 16

Segmentation of assets

in EUR thousand	Property and casualty reinsurance 31.12.2017	Property and casualty reinsurance 31.12.2016
Assets		
Fixed-income securities – held to maturity	259,284	342,793
Fixed-income securities – loans and receivables	2,417,894	2,539,270
Fixed-income securities – available for sale	23,662,710	24,337,185
Equity securities – available for sale	37,520	905,307
Financial assets at fair value through profit or loss	56,652	73,352
Other invested assets	3,612,795	3,391,140
Short-term investments	342,744	259,598
Cash and cash equivalents	610,585	579,112
Total investments and cash under own management	**31,000,184**	**32,427,757**
Funds withheld	1,636,993	1,263,533
Contract deposits	(121)	(105)
Total investments	**32,637,056**	**33,691,185**
Reinsurance recoverables on unpaid claims	1,443,869	1,250,770
Reinsurance recoverables on benefit reserve	–	–
Prepaid reinsurance premium	96,383	133,858
Reinsurance recoverables on other reserves	1,269	3,590
Deferred acquisition costs	841,911	758,429
Accounts receivable	2,458,038	2,130,342
Other assets in the segment	1,351,426	1,115,251
Assets held for sale	–	15,086
Total assets	**38,829,952**	**39,098,511**

Segmentation of liabilities

in EUR thousand		
Liabilities		
Loss and loss adjustment expense reserve	24,130,443	24,010,367
Benefit reserve	–	–
Unearned premium reserve	3,332,083	3,171,056
Provisions for contingent commissions	162,620	127,865
Funds withheld	400,290	456,877
Contract deposits	72,056	(3,628)
Reinsurance payable	512,372	675,669
Long-term liabilities	250,122	313,378
Other liabilities in the segment	1,948,148	2,150,083
Total liabilities	**30,808,134**	**30,901,667**

[1] Restated pursuant to IAS 8 (cf. section 3.1 of the notes)

Life and health reinsurance		Consolidation		Total	
31.12.2017	31.12.2016 [1]	31.12.2017	31.12.2016	31.12.2017	31.12.2016 [1]
71,898	134,045	5,000	8,117	336,182	484,955
37,270	24,324	–	–	2,455,164	2,563,594
7,617,113	7,831,889	2,085	13,099	31,281,908	32,182,173
–	–	–	–	37,520	905,307
244,222	224,230	–	–	300,874	297,582
189,441	210,413	49,219	70,677	3,851,455	3,672,230
615,925	565,899	–	13,490	958,669	838,987
213,065	267,623	12,056	1,932	835,706	848,667
8,988,934	**9,258,423**	**68,360**	**107,315**	**40,057,478**	**41,793,495**
9,098,019	10,409,726	–	–	10,735,012	11,673,259
167,975	170,610	–	–	167,854	170,505
18,254,928	**19,838,759**	**68,360**	**107,315**	**50,960,344**	**53,637,259**
207,660	255,716	(194)	(194)	1,651,335	1,506,292
959,533	1,189,420	–	–	959,533	1,189,420
19	1,069	–	–	96,402	134,927
6,032	8,641	–	–	7,301	12,231
1,386,335	1,505,605	–	–	2,228,246	2,264,034
1,363,610	1,547,740	(524)	(52)	3,821,124	3,678,030
792,297	723,648	(671,162)	(681,631)	1,472,561	1,157,268
–	–	–	–	–	15,086
22,970,414	**25,070,598**	**(603,520)**	**(574,562)**	**61,196,846**	**63,594,547**

4,248,296	4,119,245	(194)	(194)	28,378,545	28,129,418
8,977,946	10,313,952	–	–	8,977,946	10,313,952
209,111	211,442	–	–	3,541,194	3,382,498
231,840	234,525	–	–	394,460	362,390
574,496	777,196	–	–	974,786	1,234,073
3,877,151	4,301,971	–	–	3,949,207	4,298,343
467,869	539,581	–	786	980,241	1,216,036
–	–	1,491,951	1,490,840	1,742,073	1,804,218
1,705,864	1,659,712	(682,176)	(696,723)	2,971,836	3,113,072
20,292,573	**22,157,624**	**809,581**	**794,709**	**51,910,288**	**53,854,000**

Consolidated segment report

Segment statement of income	**Property and casualty reinsurance**	
in EUR thousand	1.1.–31.12.2017	1.1.–31.12.2016
Gross written premium	10,710,944	9,204,554
thereof		
From insurance business with other segments	–	–
From insurance business with external third parties	10,710,944	9,204,554
Net premium earned	9,158,732	7,985,047
Net investment income	1,209,298	900,919
thereof		
Change in fair value of financial instruments	2,069	2,452
Total depreciation, impairments and appreciation of investments	70,905	75,997
Income/expense on funds withheld and contract deposits	17,789	24,031
Claims and claims expenses	6,526,236	5,330,662
Change in benefit reserve	–	–
Commission and brokerage, change in deferred acquisition costs and other technical income/expenses	2,434,368	1,975,912
Administrative expenses	200,440	199,380
Other income and expenses	(86,789)	(39,720)
Operating profit/loss (EBIT)	**1,120,197**	**1,340,292**
Interest on hybrid capital	–	–
Net income before taxes	**1,120,197**	**1,340,292**
Taxes	203,117	339,064
Net income	**917,080**	**1,001,228**
thereof		
Non-controlling interest in profit or loss	79,740	51,337
Group net income	837,340	949,891

[1] Restated pursuant to IAS 8 (cf. section 3.1 of the notes)

Life and health reinsurance		Consolidation		Total	
1.1.–31.12.2017	1.1.–31.12.2016 [1]	1.1.–31.12.2017	1.1.–31.12.2016	1.1.–31.12.2017	1.1.–31.12.2016 [1]
7,079,562	7,149,023	–	45	17,790,506	16,353,622
–	(45)	–	45	–	–
7,079,562	7,149,068	–	–	17,790,506	16,353,622
6,472,779	6,425,048	159	181	15,631,670	14,410,276
560,597	638,898	3,994	10,603	1,773,889	1,550,420
36,500	23,702	–	(88)	38,569	26,066
44	31	–	–	70,949	76,028
217,126	308,118	–	–	234,915	332,149
5,666,843	5,480,293	–	370	12,193,079	10,811,325
(571)	82,988	–	22	(571)	83,010
1,081,775	1,022,547	227	2	3,516,370	2,998,461
210,708	201,973	149	192	411,297	401,545
170,589	67,122	(4,829)	(4,409)	78,971	22,993
245,210	**343,267**	**(1,052)**	**5,789**	**1,364,355**	**1,689,348**
–	–	71,736	71,693	71,736	71,693
245,210	**343,267**	**(72,788)**	**(65,904)**	**1,292,619**	**1,617,655**
66,294	86,522	(21,369)	(34,357)	248,042	391,229
178,916	**256,745**	**(51,419)**	**(31,547)**	**1,044,577**	**1,226,426**
6,282	3,860	–	–	86,022	55,197
172,634	252,885	(51,419)	(31,547)	958,555	1,171,229

6. Notes on the individual items of the balance sheet

6.1 Investments under own management

Hannover Re classifies investments according to the following categories: held-to-maturity, loans and receivables, financial assets at fair value through profit or loss and available-for-sale. The allocation and measurement of investments is determined by the investment intent and complies with the requirements of IAS 39 "Financial Instruments: Recognition and Measurement".

The investments under own management also encompass investments in associated companies, real estate and real estate funds (also includes: investment property), other invested assets, short-term investments and cash. The recognition and measurement of these items is based on the respective applicable IFRS for this type of assets.

The following table shows the regional origin of the investments under own management.

Investments N 17

in EUR thousand	2017	2016
Regional origin		
Germany	6,999,285	7,512,169
United Kingdom	3,286,400	2,705,587
France	1,419,423	1,834,876
Other	6,108,855	6,850,690
Europe	**17,813,963**	**18,903,322**
USA	13,380,576	14,141,199
Other	1,876,686	1,783,517
North America	**15,257,262**	**15,924,716**
Asia	2,353,786	2,210,353
Australia	2,496,589	2,435,296
Australasia	**4,850,375**	**4,645,649**
Africa	442,684	403,407
Other	1,693,194	1,916,401
Total	**40,057,478**	**41,793,495**

Maturities of the fixed-income and variable-yield securities N 18

in EUR thousand	2017 Amortised cost[1]	2017 Fair value	2016 Amortised cost[1]	2016 Fair value
Held to maturity				
due in one year	85,411	86,359	144,327	145,003
due after one through two years	28,055	29,586	87,517	90,601
due after two through three years	35,145	39,097	28,500	30,907
due after three through four years	138,465	156,064	35,083	40,284
due after four through five years	–	–	140,256	162,586
due after five through ten years	48,278	54,789	48,276	54,398
due after more than ten years	828	263	996	311
Total	**336,182**	**366,158**	**484,955**	**524,090**
Loans and receivables				
due in one year	129,159	130,841	209,243	210,524
due after one through two years	179,739	188,653	140,840	144,552
due after two through three years	218,893	233,670	185,067	198,725
due after three through four years	302,243	320,436	228,296	247,919
due after four through five years	214,455	235,151	329,506	354,351
due after five through ten years	942,722	1,126,196	987,545	1,194,792
due after more than ten years	467,953	505,538	483,097	543,506
Total	**2,455,164**	**2,740,485**	**2,563,594**	**2,894,369**
Available for sale				
due in one year[2]	5,345,018	5,346,842	4,470,510	4,479,500
due after one through two years	2,711,972	2,721,829	3,382,457	3,404,847
due after two through three years	3,310,919	3,364,264	2,820,187	2,866,629
due after three through four years	3,659,321	3,675,048	3,748,106	3,841,259
due after four through five years	2,748,835	2,814,657	3,134,627	3,190,102
due after five through ten years	9,992,925	10,218,549	11,351,605	11,588,659
due after more than ten years	4,601,225	4,935,094	4,234,143	4,498,831
Total	**32,370,215**	**33,076,283**	**33,141,635**	**33,869,827**
Financial assets at fair value through profit or loss				
due in one year	177,634	177,634	11,698	11,698
due after one through two years	8,620	8,620	210,510	210,510
due after two through three years	–	–	7,881	7,881
due after three through four years	–	–	9,828	9,828
due after four through five years	7,075	7,075	–	–
due after more than ten years	18,713	18,713	–	–
Total	**212,042**	**212,042**	**239,917**	**239,917**

1 Including accrued interest
2 Including short-term investments, cash and cash equivalents

Annual financial statements

The stated maturities may in individual cases diverge from the contractual maturities because borrowers may have the right to call or prepay obligations with or without penalty.

Variable-rate bonds (so-called "floaters") are shown under the maturities due in one year and constitute our interest-related, within-the-year reinvestment risk.

Amortised cost, unrealised gains and losses and accrued interest on the portfolio of investments classified as held to maturity as well as their fair value **N 19**

	2017				
in EUR thousand	Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
Investments held to maturity					
Fixed-income securities					
Government debt securities of EU member states	28,624	217	471	–	29,095
Debt securities issued by semi-governmental entities	29,493	437	2,433	–	31,926
Corporate securities	91,286	1,522	8,037	–	99,323
Covered bonds / asset-backed securities	186,779	3,872	19,600	565	205,814
Total	**336,182**	**6,048**	**30,541**	**565**	**366,158**

Amortised cost, unrealised gains and losses and accrued interest on the portfolio of investments classified as held to maturity as well as their fair value **N 20**

	2016				
in EUR thousand	Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
Investments held to maturity					
Fixed-income securities					
Government debt securities of EU member states	60,967	1,147	1,195	4	62,158
US Treasury notes	9,694	165	2	–	9,696
Debt securities issued by semi-governmental entities	85,877	1,247	3,915	–	89,792
Corporate securities	91,683	1,522	8,732	–	100,415
Covered bonds / asset-backed securities	236,734	5,441	25,980	685	262,029
Total	**484,955**	**9,522**	**39,824**	**689**	**524,090**

The carrying amount of the portfolio held to maturity is arrived at from the amortised cost plus accrued interest.

Amortised cost, unrealised gains and losses and accrued interest on loans and receivables as well as their fair value N21

	2017				
in EUR thousand	Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
Loans and receivables					
Debt securities issued by semi-governmental entities	1,544,933	22,830	187,976	5,221	1,727,688
Corporate securities	396,794	2,326	25,988	1,454	421,328
Covered bonds / asset-backed securities	513,437	9,331	78,032	–	591,469
Total	**2,455,164**	**34,487**	**291,996**	**6,675**	**2,740,485**

Amortised cost, unrealised gains and losses and accrued interest on loans and receivables as well as their fair value N22

	2016				
in EUR thousand	Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
Loans and receivables					
Debt securities issued by semi-governmental entities	1,609,907	25,638	225,273	3,701	1,831,479
Corporate securities	367,942	3,422	17,310	1,644	383,608
Covered bonds / asset-backed securities	585,745	10,334	93,537	–	679,282
Total	**2,563,594**	**39,394**	**336,120**	**5,345**	**2,894,369**

The carrying amount of the loans and receivables is arrived at from the amortised cost plus accrued interest.

Amortised cost, unrealised gains and losses and accrued interest on the portfolio of investments classified as available for sale as well as their fair value N 23

in EUR thousand	2017				
	Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
Available for sale					
Fixed-income securities					
Government debt securities of EU member states	3,101,426	19,901	132,208	10,214	3,223,420
US Treasury notes	6,945,508	28,144	19,192	97,721	6,866,979
Other foreign government debt securities	1,893,711	16,513	26,766	16,290	1,904,187
Debt securities issued by semi-governmental entities	5,137,974	37,859	183,998	45,058	5,276,914
Corporate securities	10,945,807	119,725	401,952	29,217	11,318,542
Covered bonds/asset-backed securities	2,427,624	23,942	116,370	6,497	2,537,497
Investment funds	123,608	–	31,690	929	154,369
	30,575,658	**246,084**	**912,176**	**205,926**	**31,281,908**
Equity securities					
Shares	12,794	–	6,388	17	19,165
Investment funds	12,865	–	5,692	202	18,355
	25,659	**–**	**12,080**	**219**	**37,520**
Short-term investments	958,851	5,582	58	240	958,669
Total	**31,560,168**	**251,666**	**924,314**	**206,385**	**32,278,097**

Amortised cost, unrealised gains and losses and accrued interest on the portfolio of investments classified as available for sale as well as their fair value N24

in EUR thousand	2016 Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
Available for sale					
Fixed-income securities					
Government debt securities of EU member states	2,402,598	16,815	167,294	11,931	2,557,961
US Treasury notes	6,791,606	23,616	19,277	148,893	6,661,990
Other foreign government debt securities	2,310,277	19,932	21,163	30,583	2,300,857
Debt securities issued by semi-governmental entities	5,259,815	41,765	254,479	37,088	5,477,206
Corporate securities	11,872,850	130,611	389,364	77,183	12,185,031
Covered bonds/asset-backed securities	2,703,570	26,666	156,406	16,659	2,843,317
Investment funds	113,265	–	42,546	–	155,811
	31,453,981	**259,405**	**1,050,529**	**322,337**	**32,182,173**
Equity securities					
Shares	554,419	–	100,114	5,079	649,454
Investment funds	212,293	–	43,560	–	255,853
	766,712	**–**	**143,674**	**5,079**	**905,307**
Short-term investments	838,987	2,367	–	–	838,987
Total	**33,059,680**	**261,772**	**1,194,203**	**327,416**	**33,926,467**

The carrying amounts of the fixed-income securities and equity securities classified as available for sale as well as the short-term investments allocated to this category correspond to their fair values, in the case of interest-bearing assets including accrued interest.

Fair value of financial assets at fair value through profit or loss before and after accrued interest as well as accrued interest on such financial assets N25

in EUR thousand	Fair value before accrued interest 2017	Fair value before accrued interest 2016	Accrued interest 2017	Accrued interest 2016	Fair value 2017	Fair value 2016
Financial assets at fair value through profit or loss						
Fixed-income securities						
Corporate securities	211,856	239,917	186	–	212,042	239,917
	211,856	**239,917**	**186**	**–**	**212,042**	**239,917**
Other financial assets						
Derivatives	88,832	57,665	–	–	88,832	57,665
	88,832	**57,665**	**–**	**–**	**88,832**	**57,665**
Total	**300,688**	**297,582**	**186**	**–**	**300,874**	**297,582**

The carrying amounts of the financial assets at fair value through profit or loss correspond to their fair values including accrued interest.

Hannover Re recognised in this category as at the balance sheet date derivative financial instruments in an amount of EUR 88.8 million (EUR 57.7 million) that are originally allocable to this item as well as fixed-income securities amounting to EUR 212.0 million (EUR 239.9 million) designated in this category. The fixed-income securities included in this category decreased largely due to currency effects. The increase in the derivative financial instruments derives from a reinsurance treaty with a financing component written in the area of life and health reinsurance.

Analysis of the fair value changes in the portfolio of fixed-income securities at fair value through profit or loss indicated that, contrary to the previous year, no fair value changes were attributable to a changed credit risk. In the previous year fair value reductions of EUR 2.2 million were due to changes in credit risks.

We additionally use an internal rating method to back up this analysis. Our internal rating system is based on the corresponding credit ratings of securities assigned by the agencies Standard & Poor's and Moody's and in each case reflects the lowest of the available ratings.

For further information please see the explanatory remarks in section 8.1 "Derivative financial instruments and financial guarantees".

Carrying amounts before impairment **N 26**

	2017		2016	
in EUR thousand	Carrying amount before impairment	Impairment	Carrying amount before impairment	Impairment
Fixed-income securities – held to maturity	336,182	–	484,955	–
Fixed-income securities – loans and receivables	2,455,164	–	2,563,594	–
Fixed-income securities – available for sale	31,282,217	309	32,182,862	689
Short-term investments	958,669	–	838,987	–
Equity securities – available for sale	41,201	3,681	935,448	30,141
Participating interests and other invested assets, real estate funds	2,167,994	21,342	2,170,696	15,342
Total	**37,241,427**	**25,332**	**39,176,542**	**46,172**

For further explanatory remarks on the impairment criteria please see section 3.2 "Summary of major accounting policies".

Rating structure of fixed-income securities N27

in EUR thousand	2017 AAA	AA	A	BBB	BB	B	C	Other	Total
Fixed-income securities – held-to-maturity	196,454	77,734	51,993	10,001	–	–	–	–	336,182
Fixed-income securities – loans and receivables	1,745,927	272,116	136,439	221,632	19,030	–	–	60,020	2,455,164
Fixed-income securities – available-for-sale	13,754,622	4,892,769	5,138,558	5,890,327	1,105,067	170,001	1,847	328,717	31,281,908
Fixed-income securities – at fair value through profit or loss	–	–	–	–	31,543	–	–	180,499	212,042
Total fixed-income securities	**15,697,003**	**5,242,619**	**5,326,990**	**6,121,960**	**1,155,640**	**170,001**	**1,847**	**569,236**	**34,285,296**

Rating structure of fixed-income securities N28

in EUR thousand	2016 AAA	AA	A	BBB	BB	B	C	Other	Total
Fixed-income securities – held-to-maturity	303,675	118,989	52,291	10,000	–	–	–	–	484,955
Fixed-income securities – loans and receivables	1,729,470	454,311	175,440	176,365	25,213	–	–	2,795	2,563,594
Fixed-income securities – available-for-sale	14,222,049	5,011,396	5,466,586	6,114,696	921,352	151,673	3,251	291,170	32,182,173
Fixed-income securities – at fair value through profit or loss	–	–	–	–	44,042	–	–	195,875	239,917
Total fixed-income securities	**16,255,194**	**5,584,696**	**5,694,317**	**6,301,061**	**990,607**	**151,673**	**3,251**	**489,840**	**35,470,639**

The maximum credit risk of the items shown here corresponds to their carrying amounts.

Breakdown of investments by currencies N 29

in EUR thousand	2017								
	AUD	CAD	CNY	EUR	GBP	USD	ZAR	Other	Total
Fixed-income securities – held to maturity	–	3,715	–	278,120	42,918	11,429	–	–	336,182
Fixed-income securities – loans and receivables	22,805	–	33,813	1,983,946	39,755	374,777	–	68	2,455,164
Fixed-income securities – available-for-sale	2,198,566	1,153,025	453,079	7,672,596	3,003,948	15,314,560	212,714	1,273,420	31,281,908
Fixed-income securities – at fair value through profit or loss	–	–	–	–	–	212,042	–	–	212,042
Equity securities – available-for-sale	–	–	–	19,838	102	17,580	–	–	37,520
Other financial assets – at fair value through profit or loss	–	–	–	835	58,964	29,033	–	–	88,832
Other invested assets	–	–	–	1,947,949	6,177	1,767,771	7,087	122,471	3,851,455
Short-term investments, cash	130,430	32,278	65,322	155,369	149,182	518,588	184,820	558,386	1,794,375
Total	**2,351,801**	**1,189,018**	**552,214**	**12,058,653**	**3,301,046**	**18,245,780**	**404,621**	**1,954,345**	**40,057,478**

Breakdown of investments by currencies N 30

in EUR thousand	2016								
	AUD	CAD	CNY	EUR	GBP	USD	ZAR	Other	Total
Fixed-income securities – held to maturity	–	19,192	–	359,148	44,926	61,689	–	–	484,955
Fixed-income securities – loans and receivables	–	–	15,191	2,006,831	41,254	500,318	–	–	2,563,594
Fixed-income securities – available-for-sale	2,049,431	1,163,323	364,631	7,853,948	2,660,674	16,556,245	202,476	1,331,445	32,182,173
Fixed-income securities – at fair value through profit or loss	–	–	–	26,485	–	213,432	–	–	239,917
Equity securities – available-for-sale	–	–	–	474,201	58,519	372,587	–	–	905,307
Other financial assets – at fair value through profit or loss	–	–	–	6,198	5,520	45,804	143	–	57,665
Other invested assets	–	–	–	1,695,019	1,910	1,964,905	7,955	2,441	3,672,230
Short-term investments, cash	94,924	25,678	100,026	219,013	90,994	475,326	152,809	528,884	1,687,654
Total	**2,144,355**	**1,208,193**	**479,848**	**12,640,843**	**2,903,797**	**20,190,306**	**363,383**	**1,862,770**	**41,793,495**

The maximum credit risk of the items shown here corresponds to their carrying amounts.

Associated companies

The associated companies included at equity in the consolidated financial statement that both on an individual basis and in their entirety are not material for the Hannover Re Group pursuant to IFRS 12 are comprised of

- WeHaCo Unternehmensbeteiligungs-GmbH, Hannover, Germany,
- HANNOVER Finanz GmbH, Hannover, Germany,
- ITAS Vita S.p.A., Trento, Italy,

as well as the following companies included at equity within the subgroup Hannover Reinsurance Group Africa (Pty) Ltd., Johannesburg, South Africa:

- Clarendon Transport Underwriting Managers (Pty) Ltd., Johannesburg, South Africa,
- Clarenfin (Pty) Ltd., Johannesburg, South Africa,
- Vela Taxi Finance (Pty) Ltd., Johannesburg, South Africa,
- Marmic Taxi Parts (Pty) Ltd., Durban, South Africa.

Information on the percentage share held by the Hannover Re Group in the capital of the associated companies as well as on the amount of capital and reserves and the result for the last financial year of these companies is provided in the list of shareholdings in section 4.2 “Consolidated companies and complete list of shareholdings”.

The following table shows combined financial information on the Hannover Re Group's individually non-material investments in associated companies.

Financial information on investments in associated companies N 31

in EUR thousand	2017	2016
Group share of net income from continuing operations	16,006	9,101
Group share of income and expense recognised directly in equity	(936)	(9,087)
Group share of total recognised income and expense	**15,070**	**14**

The carrying amount of the investments in associated companies changed as follows in the year under review:

Investments in associated companies N 32

in EUR thousand	2017	2016
Net book value at 31 December of the previous year	**114,633**	**128,008**
Currency translation at 1 January	(22)	263
Net book value after currency translation	**114,611**	**128,271**
Additions	389	–
Disposals	–	6,395
Profit or loss on investments in associated companies	16,006	9,101
Dividend payments	9,000	7,158
Change recognised outside income	(936)	(9,087)
Currency translation at 31 December	5	(99)
Net book value at 31 December of the year under review	**121,075**	**114,633**

No discontinued operations existed in the year under review among the companies measured at equity. Insofar as there are commitments from contingent liabilities of associated companies, the Hannover Re Group shares in such commitments in proportion to its respective shareholding.

Public price listings are not available for companies valued at equity. The net book value of associated companies includes goodwill in the amount of EUR 18.8 million (EUR 18.5 million). For further details please see section 4 "Consolidation".

Real estate

Real estate is divided into real estate for own use and third-party use (investment property). Own-use real estate is recognised under other assets.

The investment property in the portfolio which is used to generate income is shown under the investments. Income and expenses from rental agreements are included in the investment income.

Real estate is valued at cost of acquisition less scheduled depreciation with useful lives of at most 50 years.

Development of investment property N 33

in EUR thousand	2017	2016
Gross book value at 31 December of the previous year	1,502,800	1,374,305
Currency translation at 1 January	(89,740)	22,117
Gross book value after currency translation	**1,413,060**	**1,396,422**
Additions	388,308	119,252
Disposals	82,453	17,969
Currency translation at 31 December	(6,248)	5,095
Gross book value at 31 December of the year under review	**1,712,667**	**1,502,800**
Cumulative depreciation at 31 December of the previous year	100,557	71,602
Currency translation at 1 January	(6,172)	1,260
Cumulative depreciation after currency translation	**94,385**	**72,862**
Disposals	9,895	1,592
Depreciation	31,013	28,885
Impairments	15,642	–
Appreciation	912	273
Currency translation at 31 December	(1,294)	675
Cumulative depreciation at 31 December of the year under review	**128,939**	**100,557**
Net book value at 31 December of the previous year	**1,402,243**	**1,302,703**
Net book value at 1 January of the year under review	**1,318,675**	**1,323,560**
Net book value at 31 December of the year under review	**1,583,728**	**1,402,243**

The fair value of investment property amounted to EUR 1,743.6 million (EUR 1,541.1 million) as at the balance sheet date.

The additions to this item are attributable to investment activities at the relevant real estate companies belonging to the Hannover Re Group, not only in Europe but also in Asia and the United States.

In terms of diversification across various real estate sectors the focus is on office properties (73%), followed by retail properties (15%). The allocation is complemented by investments in further sectors, including for example logistics and parking facilities. In geographical terms, exposures are spread across the United States (40%), Europe (excluding Germany; 33%) as well as Germany (20%) and Asia (7%).

The real estate in the investment portfolio is normally subject to internal and external valuation by an appraiser as at the balance sheet date. The two analyses do not differ from one another in the methodology used, which means that the findings are comparable at all times and on a continuous basis. Generally speaking, the fair value of the real estate is determined using the discounted cash flow (DCF) method, with rental income capitalised in consideration of the associated management costs. The valuation result is also influenced by increases and reductions based on specific property circumstances (upkeep, vacancies, rent divergences from the market level, etc.). The evaluation of international real estate also draws primarily on the discounted cash flow method. The main feature of this method is the present value estimation of projected annual free cash flows.

Real estate which is held for sale as defined by IFRS 5 is recognised separately in the consolidated balance sheet. Intentions to sell are substantiated by individual real estate market conditions and specific property circumstances, taking into consideration current and future opportunity/risk profiles. In the year under review no property had to be reclassified to assets held for sale.

In addition, we held indirect real estate investments measured at fair values in an amount of EUR 385.0 million (EUR 390.7 million) in the year under review, the amortised costs of which amounted to EUR 327.2 million (EUR 323.5 million). The differences between the carrying amounts and amortised costs were recognised as unrealised gains of EUR 59.5 million (EUR 70.8 million) and unrealised losses of EUR 1.7 million (EUR 3.7 million) under cumulative other comprehensive income.

Other invested assets

The other invested assets consisted largely of participating interests in partnerships measured at fair value in an amount of EUR 1,507.6 million (EUR 1,463.1 million), the amortised cost of which amounted to EUR 1,124.5 million (EUR 1,042.2 million). The differences between the carrying amounts and the amortised costs were recognised as unrealised gains of EUR 398.0 million (EUR 427.8 million) and unrealised losses of EUR 14.8 million (EUR 6.9 million) under cumulative other comprehensive income.

In addition, acquired life insurance policies measured at fair value through profit or loss were recognised under the other invested assets in an amount of EUR 38.2 million (EUR 55.1 million).

Short-term investments

This item comprises investments with a maturity of up to one year at the time of investment.

Fair value hierarchy

For the purposes of the disclosure requirements pursuant to IFRS 13 "Fair Value Measurement", financial assets and liabilities are to be assigned to a three-level fair value hierarchy.

The fair value hierarchy, which reflects characteristics of the price data and inputs used for measurement purposes, is structured as follows:

- Level 1: Assets or liabilities measured at (unadjusted) prices quoted directly in active and liquid markets
- Level 2: Assets or liabilities which are measured using observable market data and are not allocable to level 1. Measurement is based, in particular, on prices for comparable assets and liabilities that are traded on active markets, prices on markets that are not considered active as well as inputs derived from such prices or market data.
- Level 3: Assets or liabilities that cannot be measured or can only be partially measured using observable market inputs. The measurement of such instruments draws principally on valuation models and methods.

If input factors from different levels are used to measure a financial instrument, the level of the lowest input factor material to measurement is determinative.

The operational units responsible for coordinating and documenting measurement are organisationally separate from the operational units that enter into investment risks. All relevant valuation processes and valuation methods are documented. Decisions on fundamental valuation issues are taken by a valuation committee that meets monthly.

In the financial year just ended, as in the previous year, no investments were allocable to another level of the fair value hierarchy.

The following table shows the breakdown of financial assets and liabilities recognised at fair value into the three-level fair value hierarchy.

Fair value hierarchy of financial assets and liabilities recognised at fair value N34

in EUR thousand	2017			
	Level 1	Level 2	Level 3	Total
Fixed-income securities	34,043	31,459,907	–	31,493,950
Equity securities	35,521	1,897	102	37,520
Other financial assets	–	39,793	49,039	88,832
Real estate and real estate funds	–	–	384,973	384,973
Other invested assets	–	–	1,639,065	1,639,065
Short-term investments	958,669	–	–	958,669
Total financial assets	**1,028,233**	**31,501,597**	**2,073,179**	**34,603,009**
Other liabilities	–	78,838	185,498	264,336
Total financial liabilities	**–**	**78,838**	**185,498**	**264,336**

Fair value hierarchy of financial assets and liabilities recognised at fair value N35

in EUR thousand	2016			
	Level 1	Level 2	Level 3	Total
Fixed-income securities	38,603	32,383,487	–	32,422,090
Equity securities	905,297	–	10	905,307
Other financial assets	–	57,665	–	57,665
Real estate and real estate funds	–	–	390,676	390,676
Other invested assets	–	–	1,653,902	1,653,902
Short-term investments	838,987	–	–	838,987
Other assets	–	794	–	794
Total financial assets	**1,782,887**	**32,441,946**	**2,044,588**	**36,269,421**
Other liabilities	–	17,820	168,943	186,763
Total financial liabilities	**–**	**17,820**	**168,943**	**186,763**

The following table provides a reconciliation of the fair values of financial assets and liabilities included in level 3 at the beginning of the financial year with the fair values as at 31 December of the financial year.

Movements in level 3 financial assets and liabilities N36

in EUR thousand	2017 Equities, equity funds and other variable-yield securities	Other financial assets	Real estate and real estate funds	Other invested assets	Other liabilities
Net book value at 31 December of the previous year	**10**	**–**	**390,676**	**1,653,902**	**168,943**
Currency translation at 1 January	(1)	–	(18,082)	(130,950)	(20,481)
Net book value after currency translation	**9**	**–**	**372,594**	**1,522,952**	**148,462**
Changes in the consolidated group	103	–	–	–	–
Income and expenses					
recognised in the statement of income	(88)	2,024	(2,341)	9,093	(29,818)
recognised directly in shareholders' equity	–	–	(5,842)	35,188	–
Purchases	78	66,331	92,817	320,334	69,113
Sales	–	18,232	72,043	245,092	–
Transfers to level 3	1	–	–	–	–
Transfers from level 3	–	–	–	–	–
Currency translation at 31 December	(1)	(1,084)	(212)	(3,410)	(2,259)
Net book value at 31 December of the year under review	**102**	**49,039**	**384,973**	**1,639,065**	**185,498**

Movements in level 3 financial assets and liabilities N37

in EUR thousand	2016 Equities, equity funds and other variable-yield securities	Other financial assets	Real estate and real estate funds	Other invested assets	Other liabilities
Net book value at 31 December of the previous year	**10**	**–**	**371,254**	**1,475,415**	**156,144**
Currency translation at 1 January	–	–	5,686	32,916	5,733
Net book value after currency translation	**10**	**–**	**376,940**	**1,508,331**	**161,877**
Income and expenses					
recognised in the statement of income	–	–	(3,081)	14,666	(22,575)
recognised directly in shareholders' equity	–	–	10,646	(9,386)	–
Purchases	–	–	84,792	383,328	25,771
Sales	–	–	78,120	250,428	(3,559)
Transfers to level 3	–	–	–	–	–
Transfers from level 3	–	–	–	–	–
Currency translation at 31 December	–	–	(501)	7,391	311
Net book value at 31 December of the year under review	**10**	**–**	**390,676**	**1,653,902**	**168,943**

The breakdown of income and expenses recognised in the statement of income in the financial year in connection with financial assets and liabilities assigned to level 3 is as follows:

Income and expenses from level 3 financial assets and liabilities **N 38**

	2017				
in EUR thousand	Equities, equity funds and other variable-yield securities	Other financial assets	Real estate and real estate funds	Other invested assets	Other liabilities
Total in the financial year					
Ordinary investment income	–	–	–	108	–
Realised gains and losses on investments	(79)	–	–	15,538	–
Change in fair value of financial instruments	–	2,024	–	1,887	29,818
Total depreciation, impairments and appreciation of investments	(9)	–	(2,341)	(8,440)	–
Thereof attributable to financial instruments included in the portfolio at 31 December of the year under review					
Ordinary investment income	–	–	–	108	–
Change in fair value of financial instruments	–	2,024	–	1,392	29,818
Total depreciation, impairments and appreciation of investments	(9)	–	(2,341)	(8,440)	–

Income and expenses from level 3 financial assets and liabilities **N 39**

	2016				
in EUR thousand	Equities, equity funds and other variable-yield securities	Other financial assets	Real estate and real estate funds	Other invested assets	Other liabilities
Total in the financial year					
Ordinary investment income	–	–	–	214	–
Realised gains and losses on investments	–	–	–	23,192	–
Change in fair value of financial instruments	–	–	–	2,924	22,575
Total depreciation, impairments and appreciation of investments	–	–	(3,081)	(11,664)	–
Thereof attributable to financial instruments included in the portfolio at 31 December of the year under review					
Ordinary investment income	–	–	–	214	–
Change in fair value of financial instruments	–	–	–	2,924	22,575
Total depreciation, impairments and appreciation of investments	–	–	(1,264)	(11,665)	–

If models are used to measure financial assets and liabilities included in level 3 under which the adoption of alternative inputs leads to a material change in fair value, IFRS 13 requires disclosure of the effects of these alternative assumptions. Of the financial assets included in level 3 with fair values of altogether EUR 2,073.2 million (EUR 2,044.6 million) as at the balance sheet date, Hannover Re measures financial assets with a volume of EUR 1,892.6 million (EUR 1,853.8 million) using the net asset value method, in respect of which alternative inputs within the meaning of the standard cannot reasonably be established. The remaining financial assets included in level 3 with a volume of EUR 180.6 million (EUR 190.8 million) relate to investments, the valuation of which is based inter alia on technical parameters. Derivative financial instruments in connection with the reinsurance business were recognised under the other liabilities included in level 3 in the year under review. Their performance is dependent upon the risk experience of an underlying group of primary insurance contracts with statutory reserving requirements. The application of alternative inputs and assumptions has no material effect on the consolidated financial statement.

Fair value hierarchy of financial assets and liabilities measured at amortised cost **N 40**

	2017			
in EUR thousand	Level 1	Level 2	Level 3	Total
Fixed-income securities	–	2,985,404	121,239	3,106,643
Real estate and real estate funds	–	–	1,743,632	1,743,632
Other invested assets	–	7,917	121,376	129,293
Total financial assets	**–**	**2,993,321**	**1,986,247**	**4,979,568**
Long-term debt and subordinated capital	–	1,977,559	39	1,977,598
Total financial liabilities	**–**	**1,977,559**	**39**	**1,977,598**

Fair value hierarchy of financial assets and liabilities measured at amortised cost **N 41**

	2016			
in EUR thousand	Level 1	Level 2	Level 3	Total
Fixed-income securities	–	3,364,927	53,532	3,418,459
Real estate and real estate funds	–	–	1,541,101	1,541,101
Other invested assets	–	13,955	96,821	110,776
Total financial assets	**–**	**3,378,882**	**1,691,454**	**5,070,336**
Long-term debt and subordinated capital	–	1,977,801	–	1,977,801
Total financial liabilities	**–**	**1,977,801**	**–**	**1,977,801**

6.2 Funds withheld (assets)

The funds withheld totalling EUR 10,735.0 million (EUR 11,673.3 million) represent the cash and securities deposits furnished by our company to our cedants that do not trigger any cash flows and cannot be realised by cedants without our consent. The maturities of these deposits are matched to the corresponding provisions. In the event of default on such a deposit our reinsurance commitment is reduced to the same extent. The decrease in funds withheld was attributable principally to partial withdrawals for specific underwriting years in relation to our UK single premium business.

6.3 Contract deposits (assets)

The contract deposits on the assets side decreased by EUR 2.6 million in the year under review from EUR 170.5 million to EUR 167.9 million.

6.4 Technical assets

The retrocessionaires' portions of the technical provisions are based on the contractual agreements of the underlying reinsurance treaties. For further details please refer to our comments on the technical provisions in section 6.7 "Technical provisions" on page 211 et seq. as well as the remarks in the risk report on page 86 et seq.

SFAS 60 requires that acquisition costs be capitalised as assets and amortised in proportion to the earned premium.

In the case of reinsurance treaties for unit-linked life insurance policies classified as "universal life-type contracts" pursuant to SFAS 97, the capitalised acquisition costs are amortised on the basis of the estimated gross profit margins from the reinsurance treaties, making allowance for the period of the insurance contracts. A discount rate based on the interest for medium-term government bonds was applied to such contracts. In the case of annuity policies with a single premium payment, these values refer to the expected policy period or period of annuity payment.

In life and health reinsurance the deferred acquisition costs associated with life and annuity policies with regular premium payments are determined in light of the period of the contracts, the expected surrenders, the lapse expectancies and the anticipated interest income.

In property and casualty reinsurance acquisition costs directly connected with the acquisition or renewal of contracts are deferred for the unearned portion of the premium.

Development of deferred acquisition costs N 42

in EUR thousand	2017	2016 [1]
Net book value at 31 December of the previous year	2,264,034	2,149,141
Currency translation at 1 January	(152,916)	3,185
Net book value after currency translation	**2,111,118**	**2,152,326**
Change in the consolidated group	–	1,327
Additions	676,407	623,887
Amortisations	530,606	525,581
Portfolio entries/exits	(16,796)	–
Currency translation at 31 December	(11,877)	12,075
Net book value at 31 December of the year under review	**2,228,246**	**2,264,034**

[1] Restated pursuant to IAS 8 (cf. section 3.1 of the notes)

For further explanatory remarks please see section 3.2 "Summary of major accounting policies".

The age structure of the accounts receivable which were unadjusted but considered overdue as at the balance sheet date is presented below.

Age structure of overdue accounts receivable N 43

	2017		2016	
in EUR thousand	Three months to one year	More than one year	Three months to one year	More than one year
Accounts receivable	303,242	130,437	218,703	117,141

Within the scope of our management of receivables we expect to receive payment of accounts receivable within three months of the date of creation of the debit entry – a period for which we also make allowance in our risk analysis. Please see our comments on the credit risk within the risk report on page 97 et seq.

The default risks associated with accounts receivable under reinsurance business are determined and recognised on the basis of case-by-case analysis.

The value adjustments on accounts receivable that we recognise in adjustment accounts changed as follows in the year under review:

Value adjustments on accounts receivable N 44

in EUR thousand	2017	2016
Cumulative value adjustments at 31 December of the previous year	40,468	35,992
Currency translation at 1 January	(321)	(274)
Cumulative value adjustments after currency translation	**40,147**	**35,718**
Value adjustments	9,299	30,602
Reversal	31,427	15,533
Utilisation	628	10,319
Cumulative value adjustments at 31 December of the year under review	**17,391**	**40,468**
Gross book value of accounts receivable at 31 December of the year under review	3,838,515	3,718,498
Cumulative value adjustments at 31 December of the year under review	17,391	40,468
Net book value of accounts receivable at 31 December of the year under review	**3,821,124**	**3,678,030**

In addition, we took specific value adjustments on reinsurance recoverables on unpaid claims in the year under review. We would refer the reader to the corresponding remarks on the loss and loss adjustment expense reserve in section 6.7 "Technical provisions". With regard to the credit risks resulting from technical assets we would also refer the reader to our comments on page 97 et seq. of the risk report.

6.5 Goodwill

In accordance with IFRS 3 "Business Combinations" scheduled amortisation is not taken on goodwill. Goodwill was subject to an impairment test.

Development of goodwill N 45

in EUR thousand	2017	2016
Net book value at 31 December of the previous year	64,609	60,244
Currency translation at 1 January	(1,405)	(1,200)
Net book value after currency translation	**63,204**	**59,044**
Additions	28,775	5,368
Currency translation at 31 December	(287)	197
Net book value at 31 December of the year under review	**91,692**	**64,609**

This item principally includes the goodwill from the acquisitions of E+S Rückversicherung AG as well as of the shares of Integra Insurance Solutions Limited and Glencar Underwriting Managers Inc. Goodwill equivalent to altogether EUR 28.8 million was added in the context of the acquisition of Argenta Holdings Limited.

For the purposes of the impairment test, the goodwill was allocated to the cash-generating units (CGUs) that represent the lowest level on which goodwill is monitored for internal management purposes. In the instances of goodwill recognised as at the balance sheet date, the CGUs are the respective business units / legal entities. The recoverable amount is established on the basis of the value in use, which is calculated using the discounted cash flow method. In this context, the detailed planning phase draws on the planning calculations of the CGUs / companies covering the next five years. These planning calculations represent the outcome of a detailed planning process in which all responsible members of management are involved and where allowance is made for the latest market developments affecting the relevant entity (in relation to the sector and the economy as a whole). The subsequent perpetuity phase is guided by the profit margins and revenue growth rates that management believes can be sustainably generated. The capitalisation rate is based on the Capital Asset Pricing Model (CAPM) as well as growth rates that are considered realistic in light of the specific market environment. The risk-free basic interest rate is determined, where possible, using corresponding yield curve data from the respective national banks. If this data cannot be obtained or can only be obtained with a disproportionately high effort, reference is made to the yields of the respective 30-year government bonds. Both the yield curves and the government bonds reflect the current interest rate trend on financial markets. The selection of the market risk premium is guided by the current recommendations of the Institute of Public Auditors in Germany (IDW). The beta factor is calculated for Hannover Rück SE on the basis of publicly accessible capital market data. The foreign exchange rates used for currency translation correspond to the situation on the balance sheet date.

The following capitalisation rates and growth rates were recognised for the individual cash-generating units:

Capitalisation rates **N 46**

	Capitalisation rate	Growth rate
E+S Rückversicherung AG	6.650%	0.800%
Glencar Underwriting Managers Inc.	8.220%	1.000%
Integra Insurance Solutions Limited	7.260%	1.000%

Sensitivity analyses were performed in which the capitalisation rates as well as material and value-influencing items of the relevant planning calculations (such as premium volumes, investment income or loss ratios) were varied. In this context individual parameters were each varied within appropriate ranges that could be anticipated in view of the prevailing market circumstances and developments. It was established that in the event of changes in parameters within ranges that could reasonably occur, the values in use were in each case higher than the corresponding book values. We would also refer to our basic remarks in section 3.2 “Summary of major accounting policies”.

6.6 Other assets

Other assets N 47

in EUR thousand	2017	2016
Present value of future profits on acquired life reinsurance portfolios	63,285	76,592
Other intangible assets	133,713	52,088
Insurance for pension commitments	90,789	87,303
Own-use real estate	64,036	67,171
Tax refund claims	78,016	58,129
Fixtures, fittings and equipment	29,653	27,234
Other receivables	34,097	8,921
Other	410,664	296,951
Total	904,253	674,389

Of this, other assets of EUR 5.1 million (EUR 3.9 million) are attributable to affiliated companies.

The item "Other" includes receivables of EUR 286.8 million (EUR 209.0 million) which correspond to the present value of future premium payments in connection with derivative financial instruments arising from transactions in the life and health reinsurance business group. For further explanation please see section 8.1 "Derivative financial instruments and financial guarantees".

The other receivables include unadjusted items of EUR 0.2 million (EUR 0.2 million) that were overdue by between three and twelve months as at the balance sheet date as well as unadjusted items of EUR 0.3 million (previous year: none) that were overdue by more than twelve months as at the balance sheet date.

Present value of future profits (PVFP) on acquired life reinsurance portfolios

Development of the present value of future profits (PVFP) on acquired life reinsurance portfolios N 48

in EUR thousand	2017	2016
Gross book value at 31 December of the previous year	136,053	131,701
Currency translation at 1 January	(14,194)	4,352
Gross book value at 31 December of the year under review	**121,859**	**136,053**
Cumulative depreciation at 31 December of the previous year	59,461	53,440
Currency translation at 1 January	(4,909)	1,478
Cumulative depreciation after currency translation	**54,552**	**54,918**
Amortisation	4,267	4,343
Currency translation at 31 December	(245)	200
Cumulative depreciation at 31 December of the year under review	**58,574**	**59,461**
Net book value at 31 December of the previous year	**76,592**	**78,261**
Net book value at 31 December of the year under review	63,285	76,592

This item consists of the present value of future cash flows recognised on business acquired in 2009 in the context of the acquisition of the ING life reinsurance portfolio. This intangible asset is amortised over the term of the underlying reinsurance contracts in proportion to the future premium income.

The period of amortisation amounts to altogether 30 years. For further information please refer to our explanatory notes on intangible assets in section 3.2 "Summary of major accounting policies".

Insurance for pension commitments

Effective 1 July 2003 Hannover Rück SE took out insurance for pension commitments. The commitments involve deferred annuities with regular premium payment under a group insurance policy. In accordance with IAS 19 "Employee Benefits" they were carried as a separate asset at fair value as at the balance sheet date in an amount of EUR 90.8 million (EUR 87.3 million).

Fixtures, fittings and equipment

Fixtures, fittings and equipment **N 49**

in EUR thousand	2017	2016
Gross book value at 31 December of the previous year	155,812	147,459
Currency translation at 1 January	(5,474)	1,290
Gross book value after currency translation	**150,338**	**148,749**
Additions	12,743	9,288
Disposals	3,974	3,281
Reclassifications	(4,451)	–
Change in the consolidated group	2,696	794
Currency translation at 31 December	159	262
Gross book value at 31 December of the year under review	**157,511**	**155,812**
Cumulative depreciation at 31 December of the previous year	128,578	118,752
Currency translation at 1 January	(4,592)	1,067
Cumulative depreciation after currency translation	**123,986**	**119,819**
Disposals	3,773	2,552
Depreciation	8,047	10,812
Reclassifications	(793)	–
Change in the consolidated group	294	490
Currency translation at 31 December	97	9
Cumulative depreciation at 31 December of the year under review	**127,858**	**128,578**
Net book value at 31 December of the previous year	**27,234**	**28,707**
Net book value at 31 December of the year under review	**29,653**	**27,234**

With regard to the measurement of fixtures, fittings and equipment, the reader is referred to our explanatory notes on the other assets in section 3.2 "Summary of major accounting policies".

Other intangible assets

Development of other intangible assets **N 50**

in EUR thousand	2017	2016
Gross book value at 31 December of the previous year	265,220	247,773
Currency translation at 1 January	(777)	283
Gross book value after currency translation	**264,443**	**248,056**
Changes in the consolidated group	85,853	202
Reclassifications	4,451	–
Additions	11,775	17,727
Disposals	184	635
Currency translation at 31 December	(1,459)	(130)
Gross book value at 31 December of the year under review	**364,879**	**265,220**
Cumulative depreciation at 31 December of the previous year	213,132	199,996
Currency translation at 1 January	(369)	(355)
Cumulative depreciation after currency translation	**212,763**	**199,641**
Changes in the consolidated group	203	–
Reclassifications	793	–
Disposals	149	555
Appreciation	–	5
Depreciation	17,614	13,924
Currency translation at 31 December	(58)	127
Cumulative depreciation at 31 December of the year under review	**231,166**	**213,132**
Net book value at 31 December of the previous year	**52,088**	**47,777**
Net book value at 31 December of the year under review	133,713	52,088

The item includes EUR 0.2 million (EUR 0.8 million) for self-created software and EUR 33.7 million (EUR 37.3 million) for purchased software as at the balance sheet date. Scheduled depreciation is taken over useful lives of three to ten years. Of the additions, an amount of EUR 3.6 million (EUR 10.1 million) is attributable to purchased software.

The gross book values include rights from long-term reinsurance treaties still existing as at the balance sheet date. The intangible assets resulting from these rights were recognised in the context of business acquisitions in the years 1997 and 2002 and were written off in full as at the balance sheet date.

Credit risks may result from other financial assets that were not overdue or adjusted as at the balance sheet date. In this regard, the reader is referred in general to our comments on the credit risk contained in the risk report on page 93 et seq.

6.7 Technical provisions

In order to show the net technical provisions remaining in the retention the following table compares the gross provisions with the corresponding retrocessionaires' shares, which are shown as assets in the balance sheet.

Technical provisions N51

	2017			2016[1]		
in EUR thousand	gross	retro	net	gross	retro	net
Loss and loss adjustment expense reserve	28,378,545	1,651,335	26,727,210	28,129,418	1,506,292	26,623,126
Benefit reserve	8,977,946	959,533	8,018,413	10,313,952	1,189,420	9,124,532
Unearned premium reserve	3,541,194	96,402	3,444,792	3,382,498	134,927	3,247,571
Other technical provisions	394,460	7,301	387,159	362,390	12,231	350,159
Total	**41,292,145**	**2,714,571**	**38,577,574**	**42,188,258**	**2,842,870**	**39,345,388**

[1] Restated pursuant to IAS 8 (cf. section 3.1 of the notes)

The loss and loss adjustment expense reserves are in principle calculated on the basis of the information supplied by ceding companies. Additional IBNR reserves are established for losses that have been incurred but not as yet reported. The development of the loss and loss adjustment expense reserve is shown in the following table. Commencing with the gross reserve, the change in the reserve after deduction of the reinsurers' portions is shown in the year under review and the previous year.

Loss and loss adjustment expense reserve N52

	2017			2016		
in EUR thousand	gross	retro	net	gross	retro	net
Net book value at 31 December of the previous year	28,129,418	1,506,292	26,623,126	26,556,388	1,395,281	25,161,107
Currency translation at 1 January	(1,917,751)	(120,535)	(1,797,216)	383,428	37,654	345,774
Net book value after currency translation	**26,211,667**	**1,385,757**	**24,825,910**	**26,939,816**	**1,432,935**	**25,506,881**
Incurred claims and claims expenses (net)[1]						
Year under review	10,434,270	1,022,795	9,411,475	8,791,598	615,771	8,175,827
Previous years	3,163,944	382,340	2,781,604	2,985,840	350,342	2,635,498
	13,598,214	**1,405,135**	**12,193,079**	**11,777,438**	**966,113**	**10,811,325**
Less:						
Claims and claims expenses paid (net)						
Year under review	(2,910,584)	(393,551)	(2,517,033)	(2,753,750)	(231,712)	(2,522,038)
Previous years	(8,531,198)	(724,128)	(7,807,070)	(7,826,003)	(659,985)	(7,166,018)
	(11,441,782)	**(1,117,679)**	**(10,324,103)**	**(10,579,753)**	**(891,697)**	**(9,688,056)**
Changes in the consolidated group	164,813	41,964	122,849	4,179	2,613	1,566
Specific value adjustment for retrocessions	–	43,609	(43,609)	–	1,250	(1,250)
Reversal of impairments	–	519	(519)	–	3	(3)
Portfolio entries/exits	2,171	–	2,171	–	–	–
Currency translation at 31 December	(156,538)	(20,752)	(135,786)	(12,262)	(2,425)	(9,837)
Net book value at 31 December of the year under review	**28,378,545**	**1,651,335**	**26,727,210**	**28,129,418**	**1,506,292**	**26,623,126**

[1] Including expenses recognised directly in equity

Specific value adjustments established in the year under review on retrocessions, i. e. on the reinsurance recoverables on unpaid claims, were principally attributable to the insolvency of a retrocessionaire from the United States in the area of property and casualty reinsurance. On balance, cumulative specific value adjustments of EUR 44.5 million (EUR 1.4 million) were recognised in these reinsurance recoverables as at the balance sheet date.

The total amount of the net reserve before specific value adjustments, to which the following remarks apply, was EUR 26,682.7 million (EUR 26,621.7 million) as at the balance sheet date.

Run-off of the net loss reserve in the property and casualty reinsurance segment

To some extent the loss and loss adjustment expense reserves are inevitably based upon estimations that entail an element of uncertainty. The difference between the loss reserves constituted in the previous year and the losses paid out of these reserves is reflected in the net run-off result. In this regard, owing to the fact that the period of some reinsurance treaties is not the calendar year or because they are concluded on an underwriting-year basis, it is frequently impossible to make an exact allocation of claims expenditures to the current financial year or the previous year.

The run-off triangles provided by the reporting units are shown after adjustment for the currency effects arising out of translation of the respective transaction currency into the local reporting currency. The run-off triangles of the reporting units delivered in foreign currencies are translated to euro at the current rate on the balance sheet date in order to show run-off results after adjustment for currency effects. In cases where the originally estimated ultimate loss corresponds to the actual ultimate loss in the original currency, it is ensured that also after translation to the Group reporting currency (EUR) a run-off result induced purely by currency effects is not shown.

The run-off triangles show the run-off of the net loss reserve (loss and loss adjustment expense reserve) established as at each balance sheet date, this reserve comprising the provisions constituted in each case for the current and preceding occurrence years.

The following table shows the net loss reserve for the property and casualty reinsurance business group in the years 2007 to 2017 as well as the run-off of the reserve (so-called run-off triangle). The figures reported for the 2007 balance sheet year also include the amounts for previous years that are no longer shown separately in the run-off triangle. The run-off results shown reflect the changes in the ultimate loss arising in the 2017 financial year for the individual run-off years.

Net loss reserve and its run-off in the property and casualty reinsurance segment N53

in Mio. EUR	31.12. 2007	31.12. 2008	31.12. 2009	31.12. 2010	31.12. 2011	31.12. 2012	31.12. 2013	31.12. 2014	31.12. 2015	31.12. 2016	31.12. 2017
Loss and loss adjustment expense reserve (from balance sheet)											
	12,700.9	13,566.6	13,904.1	15,161.9	16,532.7	17,155.2	17,721.6	19,618.3	21,612.5	22,563.5	**22,686.6**
Cumulative payments for the year in question and previous years											
One year later	2,473.2	2,935.0	2,737.1	2,434.2	3,118.4	2,890.2	3,177.5	3,493.1	3,251.2	3,739.0	
Two years later	4,251.0	4,568.7	3,965.2	4,073.1	4,843.4	4,506.7	4,981.0	5,233.5	5,156.4		
Three years later	5,366.6	5,329.9	4,787.8	5,065.8	5,775.4	5,703.2	6,096.9	6,490.7			
Four years later	5,917.8	5,918.8	5,435.1	5,718.3	6,710.7	6,552.2	7,088.2				
Five years later	6,353.8	6,401.1	5,942.2	6,478.9	7,428.3	7,341.8					
Six years later	6,718.0	6,732.2	6,445.0	7,020.9	8,021.8						
Seven years later	6,996.6	7,079.3	6,794.3	7,459.6							
Eight years later	7,288.2	7,342.2	7,123.3								
Nine years later	7,499.8	7,631.1									
Ten years later	7,732.5										
Loss and loss adjustment expense reserve (net) for the year in question and previous years plus payments made to date on the original reserve											
End of year	**12,700.9**	**13,566.6**	**13,904.1**	**15,161.9**	**16,532.7**	**17,155.2**	**17,721.6**	**19,618.3**	**21,612.5**	**22,563.5**	**22,686.6**
One year later	12,995.8	14,668.7	13,399.4	14,556.0	16,239.5	16,675.2	17,533.5	19,111.4	20,738.6	21,505.5	
Two years later	12,924.5	13,415.8	12,668.5	13,950.7	15,849.3	16,324.9	16,908.6	17,998.2	19,359.9		
Three years later	12,438.0	12,572.7	12,092.6	13,508.2	15,401.0	15,806.3	15,867.1	17,047.3			
Four years later	11,599.2	12,077.5	11,663.9	13,050.4	14,780.1	15,105.2	15,001.3				
Five years later	11,250.6	11,737.4	11,204.1	12,484.3	14,115.3	14,351.1					
Six years later	10,946.4	11,240.7	10,674.5	11,957.5	13,392.9						
Seven years later	10,542.8	10,751.9	10,312.0	11,356.5							
Eight years later	10,124.4	10,429.8	9,817.5								
Nine years later	9,896.4	10,004.4									
Ten years later	9,541.4										
Change relative to previous year											
Net run-off result	355.1	70.4	69.1	106.5	121.3	31.8	111.7	85.1	427.8	(320.8)	
As percentage of original loss reserve	2.8	0.5	0.5	0.7	0.7	0.2	0.6	0.4	2.0	(1.4)	

The run-off profit of altogether EUR 1,058.0 million (EUR 804.1 million) in the 2017 financial year derives, as in the previous year, above all from positive run-offs of reserves in short-tail property business as well as in the areas of general liability and marine / aviation.

Maturities of the technical reserves

IFRS 4 "Insurance Contracts" requires information which helps to clarify the amount and timing of cash flows expected from reinsurance contracts. In the following tables we have shown the future maturities of the technical provisions broken down by the expected remaining times to maturity. As part of our maturity analysis we have directly deducted the deposits put up as collateral for these reserves, since the cash inflows and outflows from these deposits are to be allocated directly to the ceding companies. For further explanation of the recognition and measurement of the reserves please see section 3.2 "Summary of major accounting policies".

Maturities of the technical reserves N54

	2017					
	Loss and loss adjustment expense reserves			Benefit reserve		
in EUR thousand	gross	retro	net	gross	retro	net
Due in one year	7,836,512	437,216	7,399,296	493,130	111,831	381,299
Due after one through five years	11,094,574	778,008	10,316,566	1,691,898	764,857	927,041
Due after five through ten years	3,911,767	237,354	3,674,413	491,424	58,694	432,730
Due after ten through twenty years	2,337,495	120,616	2,216,879	197,622	(1,711)	199,333
Due after twenty years	1,021,827	53,489	968,338	1,128,499	23,109	1,105,390
	26,202,175	**1,626,683**	**24,575,492**	**4,002,573**	**956,780**	**3,045,793**
Deposits	2,176,370	69,136	2,107,234	4,975,373	2,753	4,972,620
Total	**28,378,545**	**1,695,819**	**26,682,726**	**8,977,946**	**959,533**	**8,018,413**

Maturities of the technical reserves N55

	2016[1]					
	Loss and loss adjustment expense reserves			Benefit reserve		
in EUR thousand	gross	retro	net	gross	retro	net
Due in one year	7,632,814	358,009	7,274,805	541,915	137,894	404,021
Due after one through five years	10,812,304	661,217	10,151,087	1,934,719	853,841	1,080,878
Due after five through ten years	4,160,760	224,772	3,935,988	1,105,203	71,956	1,033,247
Due after ten through twenty years	2,726,059	128,750	2,597,309	552,594	4,983	547,611
Due after twenty years	1,240,032	59,955	1,180,077	1,208,785	117,231	1,091,554
	26,571,969	**1,432,703**	**25,139,266**	**5,343,216**	**1,185,905**	**4,157,311**
Deposits	1,557,449	74,983	1,482,466	4,970,736	3,515	4,967,221
Total	**28,129,418**	**1,507,686**	**26,621,732**	**10,313,952**	**1,189,420**	**9,124,532**

[1] Restated pursuant to IAS 8 (cf. section 3.1 of the notes)

The average maturity of the loss and loss adjustment expense reserves was 4.6 years (5.1 years), or 4.6 years (5.1 years) after allowance for the corresponding retrocession shares. The benefit reserve had an average maturity of 11.1 years (10.9 years) – or 13.6 years (12.3 years) on a net basis.

The average maturity of the reserves is determined using actuarial projections of the expected future payments. A payment pattern is calculated for each homogenous category of our portfolio – making allowance for the business sector, geographical considerations, treaty type and the type of reinsurance – and applied to the outstanding liabilities for each underwriting year and run-off status.

The payment patterns are determined with the aid of actuarial estimation methods and adjusted to reflect changes in payment behaviour and outside influences. The calculations can also be distorted by major losses, and these are therefore considered separately using reference samples or similar losses. The payment patterns used can be compared year for year by contrasting the projected payments with the actual amounts realised. Liabilities in liability and motor reinsurance traditionally have long durations, sometimes in excess of 20 years, while liabilities in property business are settled within the first ten years.

A benefit reserve is established for life, annuity, personal accident and health reinsurance contracts. Based on the duration of these contracts, long-term reserves are constituted for life and annuity policies and predominantly short-term reserves are set aside for health and personal accident business.

The parameters used to calculate the benefit reserve are interest income, lapse rates and mortality/morbidity rates.

The values for the first two components (interest income and lapse rates) differ according to the country concerned, product type, investment year etc.

The mortality and morbidity rates used are chosen on the basis of national tables and the insurance industry standard. Empirical values for the reinsured portfolio, where available, are also taken into consideration. In this context insights into the gender, age and smoker structure are incorporated into the calculations, and allowance is also made for factors such as product type, sales channel and the frequency of premium payment by policyholders.

At the inception of every reinsurance contract, assumptions about the three parameters are made and locked in for the purpose of calculating the benefit reserve. At the same time, safety/fluctuation loadings are built into each of these components. In order to ensure at all times that the originally chosen assumptions continue to be adequate throughout the contract, checks are made on a regular – normally annual – basis in order to determine whether these assumptions need to be adjusted (“unlocked”).

The benefit reserve is established in accordance with the principles set out in SFAS 60. The provisions are based on the Group companies’ information regarding mortality, interest and lapse rates.

Development of the benefit reserve N56

	2017			2016[1]		
in EUR thousand	gross	retro	net	gross	retro	net
Net book value at 31 December of the previous year	10,313,952	1,189,420	9,124,532	12,227,691	1,367,173	10,860,518
Currency translation at 1 January	(675,675)	(123,427)	(552,248)	(614,826)	4,822	(619,648)
Net book value after currency translation	**9,638,277**	**1,065,993**	**8,572,284**	**11,612,865**	**1,371,995**	**10,240,870**
Changes	41,738	42,309	(571)	199,517	116,507	83,010
Portfolio entries/exits	(698,166)	(153,049)	(545,117)	(1,529,022)	(327,771)	(1,201,251)
Currency translation at 31 December	(3,903)	4,280	(8,183)	30,592	28,689	1,903
Net book value at 31 December of the year under review	**8,977,946**	**959,533**	**8,018,413**	**10,313,952**	**1,189,420**	**9,124,532**

[1] Restated pursuant to IAS 8 (cf. section 3.1 of the notes)

The development in the year under review was influenced by portfolio withdrawals attributable principally to partial withdrawals from specific underwriting years in relation to UK single premium business as well as in quota share business with German primary insurers.

The unearned premium reserve derives from the deferral of ceded reinsurance premium. The unearned premium is determined by the period during which the risk is carried and established in accordance with the information supplied by ceding companies. In cases where no information was received, the unearned premium was estimated using suitable methods. Premium paid for periods subsequent to the date of the balance sheet was deferred from recognition within the statement of income.

Development of the unearned premium reserve N 57

in EUR thousand	2017 gross	2017 retro	2017 net	2016[1] gross	2016[1] retro	2016[1] net
Net book value at 31 December of the previous year	3,382,498	134,927	3,247,571	3,192,841	164,023	3,028,818
Currency translation at 1 January	(233,908)	(12,090)	(221,818)	26,576	5,658	20,918
Net book value after currency translation	**3,148,590**	**122,837**	**3,025,753**	**3,219,417**	**169,681**	**3,049,736**
Changes in the consolidated group	–	–	–	4,694	3,167	1,527
Changes	437,768	(24,986)	462,754	163,914	(29,808)	193,722
Portfolio entries/exits	(259)	–	(259)	(9,917)	(5,919)	(3,998)
Currency translation at 31 December	(44,905)	(1,449)	(43,456)	4,390	(2,194)	6,584
Net book value at 31 December of the year under review	**3,541,194**	**96,402**	**3,444,792**	**3,382,498**	**134,927**	**3,247,571**

[1] Restated pursuant to IAS 8 (cf. section 3.1 of the notes)

The adequacy of the technical liabilities arising out of our reinsurance treaties is reviewed as at each balance sheet date. In the context of the adequacy testing of technical liabilities (liability adequacy test pursuant to IFRS 4 in conjunction with loss recognition test as per US GAAP) the anticipated future contractual payment obligations are compared with the anticipated future income. Should the result of the test indicate that the anticipated future income will not be sufficient to fund future payments, the entire shortfall is recognised in income by first writing off capitalised acquisition costs corresponding to the shortfall. Any remaining difference is constituted as an additional provision.

6.8 Funds withheld (liabilities)

The funds withheld under reinsurance treaties totalling EUR 974.8 million (EUR 1,234.1 million) represent the cash and securities deposits furnished to our company by our retrocessionaires that do not trigger any cash flows and cannot be realised without the consent of our retrocessionaires. The maturities of these deposits are matched to the corresponding shares of the reinsurers in the technical provisions. If such a share no longer exists the corresponding funds withheld are reduced to the same extent.

6.9 Contract deposits (liabilities)

The contract deposits on the liabilities side decreased by EUR 349.1 million in the year under review from EUR 4,298.3 million to EUR 3,949.2 million. The contract deposits item on the liabilities side essentially encompasses balances deriving from non-traditional life insurance contracts that are to be carried as liabilities. The decrease was due principally to partial withdrawals from specific underwriting years in relation to UK single premium business.

6.10 Provisions for pensions and other post-employment benefit obligations

Pension commitments are given in accordance with the relevant version of the pension plan as amended. The 1968 pension plan provides for retirement, disability, widows' and orphans' benefits. The pension entitlement is dependent on length of service; entitlements under the statutory pension insurance scheme are taken into account. The pension plan was closed to new participants with effect from 31 January 1981.

On 1 April 1993 (1 June 1993 in the case of managerial staff) the 1993 pension plan came into effect. This pension plan provides for retirement, disability and surviving dependants' benefits. The scheme is based upon annual determination of the pension contributions, which are calculated according to the pensionable employment income and the company's performance. The pension plan was closed to new participants with effect from 31 March 1999.

From 1997 onwards it has been possible to obtain pension commitments through deferred compensation. The employee-funded commitments included in the provisions for accrued pension rights are protected by an insurance contract with HDI Lebensversicherung AG, Cologne.

As at 1 July 2000 the 2000 pension plan came into force for the entire Group. Under this plan, new employees included in the group of beneficiaries are granted an indirect commitment from HDI Unterstützungskasse e.V. This pension plan provides for retirement, disability and surviving dependants' benefits.

Effective 1 December 2002 Group employees have an opportunity to accumulate additional old-age provision at unchanged conditions by way of deferred compensation through membership of HDI Pensionskasse AG.

In addition to these pension plans, managerial staff and members of the Executive Board, in particular, enjoy individual commitments as well as commitments given under the benefits plan of the Bochumer Verband.

The commitments to employees in Germany predominantly comprise benefit obligations financed by the Group companies. The provisions for pensions in Germany and abroad were calculated on the basis of uniform standards according to prevailing economic circumstances.

Provisions for pensions are established in accordance with actuarial principles and are based upon the commitments made by the Hannover Re Group for retirement, disability and widows' benefits. The amount of the commitments is determined according to length of service and salary level.

The defined benefit plans expose Hannover Re to the following actuarial risks:

- longevity
- currency
- interest rate
- disablement
- pension progression
- rate of compensation increase

Longevity entails the risk that the mortality contained in the actuarial bases does not correspond to the actual mortality and that pension payments have to be rendered and funded for a longer duration than had been assumed.

Disablement entails the risk that the assumed number of retirements from the subportfolio of eligible beneficiaries on grounds of disability does not correspond to the actual experience and for this reason increased benefit obligations have to be met.

The pension progression entails the risk that the anticipated development of the consumer price index factored into the trend assumptions was too low and that increased benefit obligations arise on account of the pension indexation required by law.

The rate of compensation increase entails the risk that the increases in pensionable salaries factored into the trend assumptions on a parallel basis do not adequately reflect the actual developments. In addition, in the case of plans under which the determinative income components above and below the income threshold for contributions to the statutory pension insurance scheme are differently weighted for the purpose of calculating the benefit, there is a risk of a diverging trend in the future with respect to salary and income threshold.

The calculation of the provisions for pensions is based upon the following assumptions:

Measurement assumptions N58

	2017			2016		
in %	Germany	Australia	United Kingdom	Germany	Australia	United Kingdom
Discount rate	1.75	3.62	2.60	1.65	3.62	2.70
Rate of compensation increase	2.50	3.00	2.25	1.59	3.00	2.35
Pension indexation	1.74	3.00	2.15	2.17	3.00	2.15

The movements in the net pension liability for the Group's various defined benefit plans were as follows:

Movements in net liability from defined benefit pension plans N59

in EUR thousand	2017	2016	2017	2016	2017	2016
	Defined benefit obligation		Fair value of plan assets		Impact of minimum funding requirement/asset ceiling	
Position at 1 January of the financial year	207,621	154,832	26,981	4,533	40	–
Recognised in profit or loss						
Current service costs	5,450	3,169	–	–	–	–
Past service cost and plan curtailments	81	–	–	–	–	–
Net interest component	3,318	3,459	572	133	–	–
	8,849	**6,628**	**572**	**133**	**–**	**–**
Recognised in cumulative other comprehensive income						
Actuarial gain (–)/loss (+) from change in biometric assumptions	3,407	–	–	–	–	–
Actuarial gain (–)/loss (+) from change in financial assumptions	(7,176)	21,998	–	–	–	–
Experience gains (–)/losses (+)	3,145	17,755	–	–	–	–
Return on plan assets, excluding amounts included in interest income	–	–	4,154	11,904	–	–
Change in asset ceiling	–	–	–	–	94	40
Exchange differences	(589)	(431)	1,408	(403)	1	–
	(1,213)	**39,322**	**5,562**	**11,501**	**95**	**40**
Other changes						
Employer contributions	–	–	989	123	–	–
Employee contributions and deferred compensation	24	27	–	382	–	–
Benefit payments	(4,438)	(4,701)	(442)	(2)	–	–
Additions and disposals	12	11,605	13	10,311	–	–
Effects of plan settlements	–	(92)	–	–	–	–
	(4,402)	**6,839**	**560**	**10,814**	**–**	**–**
Position at 31 December of the financial year	**210,855**	**207,621**	**33,675**	**26,981**	**135**	**40**

The plan assets consist exclusively of qualifying insurance policies as defined by IAS 19.

The actuarial gains and losses from the change in financial assumptions for defined benefit obligations were chiefly influenced in the financial year just ended by the increase in the discount rate compared to the previous year.

The reconciliation of the projected benefit obligations with the recognised provisions for pensions is as follows:

Provisions for pensions **N 60**

in EUR thousand	2017	2016
Projected benefit obligations at 31 December of the financial year	210,855	207,621
Fair value of plan assets at 31 December of the financial year	33,675	26,981
Effect of minimum funding requirement on asset ceiling	135	40
Recognised pension obligations at 31 December of the financial year	**177,315**	**180,680**
thereof: Capitalised assets	471	–
Provisions for pensions	177,786	180,680

In the current financial year Hannover Re anticipates contribution payments of EUR 2.6 million under the plans set out above. The weighted average duration of the defined benefit obligation is 18.3 (17.9) years.

Sensitivity analysis

An increase or decrease in the key actuarial assumptions would have the following effect on the present value of the defined benefit obligation as at the balance sheet date:

Effect on the defined benefit obligation **N 61**

in EUR thousand		Parameter increase	Parameter decrease
Discount rate	(+/−0.5%)	(17,769)	20,099
Rate of compensation increase	(+/−0.25%)	707	(670)
Pension indexation	(+/−0.25%)	6,208	(5,916)

Furthermore, a change is possible with respect to the assumed mortality rates and lifespans. The underlying mortality tables were adjusted by reducing the mortalities by 10% in order to determine the longevity risk. Extending the lifespans in this way would have produced a EUR 6.6 million (EUR 6.9 million) higher pension commitment at the end of the financial year.

Defined contribution plans

In addition to the defined benefit plans, some Group companies have defined contribution plans that are based on length of service and the employee's income or level of contributions. The expense recognised for these obligations in the financial year in accordance with IAS 19 "Employee Benefits" was EUR 20.2 million (EUR 17.9 million), of which EUR 0,8 million (EUR 0.9 million) was attributable to commitments to employees in key positions. Of the expense for defined contribution plans, an amount of EUR 10.8 million (EUR 10.7 million) relates to state pension schemes, thereof EUR 7.6 million (EUR 7.2 million) to contributions to the statutory pension insurance scheme in Germany.

6.11 Other liabilities

Other liabilities N 62

in EUR thousand	2017	2016
Liabilities from derivatives	264,337	186,763
Interest	32,437	31,387
Deferred income	40,240	32,579
Direct minority interests in partnerships	–	6,475
Sundry non-technical provisions	181,346	199,626
Sundry liabilities	135,978	223,566
Total	**654,338**	**680,396**

Of this, other liabilities of EUR 16.6 million (EUR 7.6 million) are attributable to affiliated companies.

With regard to the liabilities from derivatives in an amount of EUR 264.3 million (EUR 186.8 million), please see our explanatory remarks on derivative financial instruments in section 8.1 "Derivative financial instruments and financial guarantees".

The sundry liabilities include accounts payable by our service companies, trade accounts payable as well as clearing balances. In addition, they include distributions within the year of EUR 6.9 million (EUR 76.9 million) from interests in private equity funds that had still to be recognised in income as at the balance sheet date.

Development of sundry non-technical provisions N 63

in EUR thousand	Balance at 31 December 2016	Currency translation at 1 January	Balance at 1 January of the year under review
Provisions for			
Audits and costs of publishing the annual financial statements	7,574	(223)	7,351
Consultancy fees	2,245	(77)	2,168
Suppliers' invoices	4,481	(213)	4,268
Partial retirement arrangements and early retirement obligations	1,933	(6)	1,927
Holiday entitlements and overtime	9,924	(198)	9,726
Anniversary bonuses	4,418	(108)	4,310
Management and staff bonuses	86,348	(3,332)	83,016
Other	82,703	(938)	(81,765)
Total	**199,626**	**(5,095)**	**194,531**

The maturities of the sundry non-technical provisions as at the balance sheet date are shown in the following table:

Maturities of the sundry non-technical provisions N 64

in EUR thousand	2017	2016
Due in one year	92,214	98,652
Due after one through five years	83,032	94,488
Due after five years	6,100	6,486
Total	**181,346**	**199,626**

Reclassifications	Changes in consolidated group	Additions	Utilisation	Release	Currency translation at 31 December	Balance at 31 December 2017
–	150	7,752	6,170	101	(18)	8,964
–	470	2,585	2,209	214	9	2,809
–	1,263	9,288	9,322	245	30	5,282
–	–	167	858	11	10	1,235
–	178	9,240	8,116	–	5	11,033
–	–	304	117	–	(5)	4,492
(182)	1,993	33,413	39,582	2,921	56	75,793
182	1,367	11,580	21,055	2,258	157	71,738
–	**5,421**	**74,329**	**87,429**	**5,750**	**244**	**181,346**

6.12 Debt and subordinated capital

On 15 September 2014 Hannover Rück SE placed a EUR 500.0 million subordinated bond on the European capital market. The issue has a perpetual maturity with a first scheduled call option on 26 June 2025 and may be redeemed at each coupon date thereafter. It carries a fixed coupon of 3.375% p.a. until 26 June 2025, after which the interest rate basis changes to 3-month EURIBOR +325 basis points.

On 20 November 2012 Hannover Rück SE placed a EUR 500.0 million subordinated bond in the European capital market via its subsidiary Hannover Finance (Luxembourg) S.A. The bond has a maturity of approximately 30 years with a first scheduled call option on 30 June 2023 and may be redeemed at each coupon date thereafter. It carries a fixed coupon of 5.00% p.a. until this date, after which the interest rate basis changes to a floating rate of 3-month EURIBOR +430 basis points.

On 14 September 2010 Hannover Rück SE placed a subordinated bond on the European capital market through its subsidiary Hannover Finance (Luxembourg) S.A. This subordinated debt of EUR 500.0 million has a maturity of 30 years with a first scheduled call option after ten years and may be redeemed at each coupon date thereafter. The bond carries a fixed coupon of 5.75% in the first ten years, after which the interest rate basis changes to a floating rate of 3-month EURIBOR +423.5 basis points.

Altogether three (three) subordinated bonds were recognised as at the balance sheet date with an amortised cost of EUR 1,492.0 million (EUR 1,490.8 million).

Debt and subordinated capital N 65

in EUR thousand				2017			
Subordinated loans	Coupon	Maturity	Currency	Amortised cost	Fair value measurement	Accrued interest	Fair value
Hannover Rück SE, 2014	3.375	n/a	EUR	495,033	59,342	8,692	563,067
Hannover Finance (Luxembourg) S.A., 2012	5.00	2043	EUR	497,822	104,038	12,603	614,463
Hannover Finance (Luxembourg) S.A., 2010	5.75	2040	EUR	499,096	71,004	8,507	578,607
				1,491,951	**234,384**	**29,802**	**1,756,137**
Debt				250,083	1,141	918	252,142
Other long-term liabilities				39	–	–	39
Total				**1,742,073**	**235,525**	**30,720**	**2,008,318**

Debt and subordinated capital N 66

in EUR thousand				2016			
Subordinated loans	Coupon	Maturity	Currency	Amortised cost	Fair value measurement	Accrued interest	Fair value
Hannover Rück SE, 2014	3.375	n/a	EUR	494,471	17,154	8,692	520,317
Hannover Finance (Luxembourg) S.A., 2012	5.00	2043	EUR	497,511	81,264	12,603	591,378
Hannover Finance (Luxembourg) S.A., 2010	5.75	2040	EUR	498,859	71,986	8,507	579,352
				1,490,841	**170,404**	**29,802**	**1,691,047**
Debt				313,377	3,179	1,218	317,774
Total				**1,804,218**	**173,583**	**31,020**	**2,008,821**

The aggregated fair value of the extended subordinated loans is based on quoted, active market prices. If such price information was not available, fair value was determined on the basis of the recognised effective interest rate method or estimated using other financial assets with similar rating, duration and return characteristics. Under the effective interest rate method the current market interest rate levels in the relevant fixed-interest-rate periods are always taken as a basis.

Maturities of financial liabilities N 67

in EUR thousand	2017 Less than three months	Three months to one year	One to five years	Five to ten years	Ten to twenty years	More than twenty years	No maturity
Other financial liabilities [1]	76,155	124,661	5,168	2,672	–	–	–
Debt	–	77,826	134,684	37,573	–	–	–
Subordinated loans	–	–	–	–	–	996,918	495,033
Other long-term liabilities	–	–	1	–	–	–	38
Total	**76,155**	**202,487**	**139,853**	**40,245**	**–**	**996,918**	**495,071**

[1] Excluding minority interests in partnerships, sundry non-technical provisions and derivative financial instruments; the maturities of the latter two items are broken down separately

Maturities of financial liabilities N 68

in EUR thousand	2016 Less than three months	Three months to one year	One to five years	Five to ten years	Ten to twenty years	More than twenty years	No maturity
Other financial liabilities [1]	65,972	219,933	985	–	–	643	–
Debt	40,165	63,754	185,234	24,224	–	–	–
Subordinated loans	–	–	–	–	–	996,370	494,471
Total	**106,137**	**283,687**	**186,219**	**24,224**	**–**	**997,013**	**494,471**

[1] Excluding minority interests in partnerships, sundry non-technical provisions and derivative financial instruments; the maturities of the latter two items are broken down separately

Net gains and losses from debt and subordinated capital N 69

in EUR thousand	Ordinary income/expenses 2017	Ordinary income/expenses 2016	Amortisation 2017	Amortisation 2016	Net result 2017	Net result 2016
Debt	(9,834)	(11,967)	757	780	(9,077)	(11,187)
Subordinated loans	(70,626)	(70,706)	(1,110)	(987)	(71,736)	(71,693)
Total	**(80,460)**	**(82,673)**	**(353)**	**(207)**	**(80,813)**	**(82,880)**

The ordinary expenses principally include interest expenses of nominally EUR 70.6 million (EUR 70.7 million) resulting from the issued subordinated debt.

The following table shows the movements in debt, subordinated capital components and other long-term liabilities with respect to cash and non-cash changes.

Reconciliation of debt and subordinated capital N 70

in EUR thousand	Balance at 31 December 2016	Cash flow	Non-cash-items		Balance at 31 December 2017
			Currency translation	Other changes	
Debt	313,377	-39,791	-22,746	-757	250,083
Subordinated loans	1,490,841	–	–	1,110	1,491,951
Other long-term liabilities	–	39	–	–	39
Total	**1,804,218**	**-39,752**	**-22,746**	**353**	**1,742,073**

6.13 Shareholders' equity and treasury shares

Shareholders' equity is shown as a separate component of the financial statement in accordance with IAS 1 "Presentation of Financial Statements" and subject to IAS 32 "Financial Instruments: Disclosure and Presentation" in conjunction with IAS 39 "Financial Instruments: Recognition and Measurement". The change in shareholders' equity comprises not only the net income deriving from the statement of income but also the changes in the value of asset and liability items not recognised in the statement of income.

The common shares (share capital of Hannover Rück SE) amount to EUR 120,597,134.00. They are divided into 120,597,134 voting and dividend-bearing registered ordinary shares in the form of no-par-value shares. The shares are paid in full. Each share carries an equal voting right and an equal dividend entitlement.

Conditional capital of up to EUR 60,299 thousand is available; it can be used to grant shares to holders of bonds and/or profit-sharing rights with conversion rights and warrants. Authorised capital is also available in an amount of up to EUR 60,299 thousand. Both have a time limit of 9 May 2021; the subscription right of shareholders may be excluded with the consent of the Supervisory Board under certain conditions. The Executive Board is authorised, with the consent of the Supervisory Board, to use an amount of up to EUR 1,000 thousand of the existing authorised capital to issue employee shares.

The Executive Board is further authorised, with the consent of the Supervisory Board, to acquire treasury shares – including through the use of derivatives – up to an amount of 10% of the share capital. The authorisation has a time limit of 5 May 2020.

The Annual General Meeting of Hannover Rück SE resolved on 10 May 2017 that a gross dividend of EUR 5.00 per share should be paid for the 2016 financial year. This corresponds to a total distribution of EUR 603.0 million (EUR 572.8 million). The distribution consists of a dividend of EUR 3.50 per share and a special dividend of EUR 1.50 per share.

The increase in the other reserves arising out of currency translation, which is recognised in equity, was attributable in an amount of EUR 51.4 million (EUR 10.1 million) to the translation of long-term debt or loans with no maturity date extended to Group companies and branches abroad.

The disclosures on capital management arising out of IAS 1 "Presentation of Financial Statements" are provided in the "Financial position" section on page 51 of the management report, to which the reader is referred. This includes both a presentation of our capital management objectives and procedures and a description of our policyholders' surplus, together with a summary of the diverse capital requirements to which we are subject. The Solvency II regulatory framework, in particular, gives rise to capital requirements and consequences for capital management, which we discuss more closely in the risk report on page 78 et seq.

Treasury shares

IAS 1 requires separate disclosure of treasury shares in shareholders' equity. As part of this year's employee share option plan Hannover Rück SE acquired altogether 18,805 (16,413) treasury shares during the second quarter of 2017 and delivered them to eligible employees at preferential conditions. These shares are blocked until 31 May 2021. This transaction resulted in an expense of EUR 0.4 million (EUR 0.4 million), which was recognised under personnel expenditure, as well as a negligible change in retained earnings recognised in equity. The company was no longer in possession of treasury shares as at the balance sheet date.

6.14 Non-controlling interests

Non-controlling interests in the shareholders' equity of subsidiaries are reported separately within Group shareholders' equity in accordance with IAS 1 "Presentation of Financial Statements". They amounted to EUR 758.1 million (EUR 743.3 million) as at the balance sheet date.

Non-controlling interests in partnerships are reported in accordance with IAS 32 "Financial Instruments: Presentation" under long-term liabilities. The non-controlling interest in profit or loss, which forms part of net income and is shown separately after net income as a "thereof" note, amounted to EUR 86.0 million (EUR 55.2 million) in the year under review.

Subsidiaries with material non-controlling interests **N 71**

in TEUR	2017 E+S Rückversicherung AG, Hannover, Germany	2016
Participation of non-controlling interests	35.21%	35.21%
Voting rights of non-controlling interests	35.21%	35.21%
Net income	205,345	133,367
thereof attributable to non-controlling interests	72,299	46,956
Income/expense recognised directly in equity	(63,859)	60,473
Total recognised income and expense	141,486	193,840
Shareholders' equity	1,995,032	1,978,546
thereof attributable to non-controlling interests	702,419	696,615
Dividends paid	125,000	110,000
thereof attributable to non-controlling interests	44,011	38,729
Assets	10,190,050	10,627,940
Liabilities	8,195,018	8,649,394
Cash flow from operating activities	214,794	293,299
Cash flow from investing activities	(87,569)	(187,314)
Cash flow from financing activities	(125,000)	(110,000)

7. Notes on the individual items of the statement of income

7.1 Gross written premium

The following table shows the breakdown of the gross written premium according to regional origin.

Gross written premium N 72

in EUR thousand	2017	2016
Regional origin		
Germany	1,215,478	1,241,991
United Kingdom	2,455,796	2,532,399
France	748,266	682,894
Other	2,215,680	1,880,892
Europe	**6,635,220**	**6,338,176**
USA	5,479,354	4,566,467
Other	681,468	766,434
North America	**6,160,822**	**5,332,901**
Asia	2,535,295	2,416,250
Australia	997,036	913,780
Australasia	**3,532,331**	**3,330,030**
Africa	495,844	454,514
Other	966,289	898,001
Total	**17,790,506**	**16,353,622**

7.2 Investment income

Investment income N 73

in EUR thousand	2017	2016
Income from real estate	171,447	142,956
Dividends	22,290	27,481
Interest income	934,802	943,682
Other investment income	160,494	47,857
Ordinary investment income	**1,289,033**	**1,161,976**
Profit or loss on shares in associated companies	16,006	9,101
Appreciation	912	294
Realised gains on investments	447,969	294,017
Realised losses on investments	70,876	87,721
Change in fair value of financial instruments	38,569	26,066
Impairments on real estate	48,995	31,966
Impairments on equity securities	3,681	30,141
Impairments on fixed-income securities	309	689
Impairments on participating interests and other financial assets	18,876	13,526
Other investment expenses	110,778	109,140
Net income from assets under own management	**1,538,974**	**1,218,271**
Interest income on funds withheld and contract deposits	372,726	453,643
Interest expense on funds withheld and contract deposits	137,811	121,494
Total investment income	**1,773,889**	**1,550,420**

Of the impairments totalling EUR 40.8 million (EUR 47.4 million), an amount of EUR 18.0 million (EUR 3.1 million) was recognised on real estate and real estate funds. Impairments of EUR 3.7 million (EUR 30.1 million) were attributable to equities or equity funds because their fair values had fallen either significantly (by at least 20%) or for a prolonged period (for at least nine months) below acquisition cost. Impairment losses of EUR 8.4 million (EUR 11.7 million) were taken on alternative investments. The impairments taken on fixed-income securities amounted to just EUR 0.3 million (EUR 0.7 million). In addition, impairment losses of EUR 10.4 million (EUR 1.9 million) were recognised on our investments in participating interests.

These write-downs contrasted with write-ups of EUR 0.9 million (EUR 0.3 million).

The portfolio did not contain any overdue, unadjusted assets as at the balance sheet date since overdue securities are written down immediately.

Interest income on investments N 74

in EUR thousand	2017	2016
Fixed-income securities – held to maturity	13,803	25,280
Fixed-income securities – loans and receivables	80,324	96,696
Fixed-income securities – available for sale	803,855	798,618
Financial assets – at fair value through profit or loss	11,515	3,188
Other	25,305	19,900
Total	**934,802**	**943,682**

The net gains and losses on investments held to maturity, loans and receivables and the available-for-sale portfolio shown in the following table are composed of interest income, realised gains and losses as well as impairments and appreciation. In the case of the fixed-income securities at fair value through profit or loss designated in this category and the other financial assets, which include the technical derivatives, income and expenses from changes in fair value are also recognised.

Making allowance for the other investment expenses of EUR 110.8 million (EUR 109.1 million), net income from assets under own management of altogether EUR 1,539.0 million (EUR 1,218.3 million) was recognised in the year under review.

Net gains and losses on investments **N 75**

in EUR thousand	2017 Ordinary investment income[1]	Realised gains and losses	Impairments/appreciation	Change in fair value	Net income from assets under own management[2]
Held to maturity					
Fixed-income securities	12,147	(18)	–	–	12,129
Loans and receivables					
Fixed-income securities	76,339	2,794	–	–	79,133
Available for sale					
Fixed-income securities	772,776	129,982	309	–	902,449
Equity securities	20,565	226,502	3,681	–	243,386
Other invested assets	254,202	16,998	21,342	–	249,858
Short-term investments	20,711	41	–	–	20,752
At fair value through profit or loss					
Fixed-income securities	11,936	–	–	7,809	19,745
Other financial assets	–	–	–	2,972	2,972
Other invested assets	–	(5,915)	–	2,449	(3,466)
Other	136,363	6,709	45,617	25,339	122,794
Total	**1,305,039**	**377,093**	**70,949**	**38,569**	**1,649,752**

[1] Including income from associated companies, for reconciliation with the consolidated statement of income
[2] Excluding other investment expenses

Net gains and losses on investments **N 76**

in EUR thousand	2016 Ordinary investment income[1]	Realised gains and losses	Impairments/appreciation	Change in fair value	Net income from assets under own management[2]
Held to maturity					
Fixed-income securities	23,486	(8)	–	–	23,478
Loans and receivables					
Fixed-income securities	95,858	2,841	–	–	98,699
Available for sale					
Fixed-income securities	744,783	161,068	668	–	905,183
Equity securities	21,152	7,060	30,141	–	(1,929)
Other invested assets	138,302	36,086	15,342	–	159,046
Short-term investments	15,414	35	–	–	15,449
At fair value through profit or loss					
Fixed-income securities	3,622	–	–	(9,458)	(5,836)
Other financial assets	–	–	–	15,177	15,177
Other invested assets	–	1,588	–	3,652	5,240
Other	128,460	(2,374)	29,877	16,695	112,904
Total	**1,171,077**	**206,296**	**76,028**	**26,066**	**1,327,411**

[1] Including income from associated companies, for reconciliation with the consolidated statement of income
[2] Excluding other investment expenses

7.3 Reinsurance result

Reinsurance result N77

in EUR thousand	2017	2016[1]
Gross written premium	17,790,506	16,353,622
Ceded written premium	1,696,082	1,749,624
Change in unearned premium	(437,768)	(163,914)
Change in ceded unearned premium	(24,986)	(29,808)
Net premium earned	**15,631,670**	**14,410,276**
Other technical income	822	470
Total net technical income	**15,632,492**	**14,410,746**
Claims and claims expenses paid	10,324,103	9,688,056
Change in loss and loss adjustment expense reserve	1,868,976	1,123,269
Claims and claims expenses	**12,193,079**	**10,811,325**
Change in benefit reserve	(571)	83,010
Net change in benefit reserve	**(571)**	**83,010**
Commissions	3,588,106	3,057,375
Change in deferred acquisition costs	146,055	98,987
Change in provision for contingent commissions	57,219	20,254
Other acquisition costs	14,141	16,292
Other technical expenses	3,781	3,997
Administrative expenses	411,297	401,545
Net technical result	**(488,505)**	**115,935**

[1] Restated pursuant to IAS 8 (cf. section 3.1 of the notes)

With regard to the claims and claims expenses as well as the change in the benefit reserve the reader is also referred to section 6.7 "Technical provisions". The change in the benefit reserve relates exclusively to the life and health reinsurance segment. The administrative expenses amounted to altogether 2.6% (2.8%) of net premium earned.

Other technical income N78

in EUR thousand	2017	2016
Other technical income (gross)	3,657	4,110
Reinsurance recoverables	2,835	3,640
Other technical income (net)	**822**	**470**

Commissions and brokerage, change in deferred acquisition costs N 79

in EUR thousand	2017	2016 [1]
Commissions paid (gross)	3,801,302	3,240,829
Reinsurance recoverables	213,196	183,454
Change in deferred acquisition costs (gross)	128,466	17,764
Reinsurance recoverables	(17,589)	(81,223)
Change in provision for contingent commissions (gross)	52,849	23,661
Reinsurance recoverables	(4,370)	3,407
Commissions and brokerage, change in deferred acquisition costs (net)	3,499,270	2,978,642

[1] Restated pursuant to IAS 8 (cf. section 3.1 of the notes)

Other technical expenses N 80

in EUR thousand	2017	2016
Other technical expenses (gross)	5,901	5,434
Reinsurance recoverables	2,120	1,437
Other technical expenses (net)	3,781	3,997

7.4 Other income and expenses

Other income/expenses N 81

in EUR thousand	2017	2016
Other income		
Exchange gains	645,544	496,755
Reversals of impairments on receivables	31,946	15,536
Income from contracts recognised in accordance with the deposit accounting method	198,088	105,858
Income from services	47,712	26,338
Deconsolidation	191	2,265
Other interest income	28,881	30,120
Sundry income	37,812	42,242
	990,174	**719,114**
Other expenses		
Other interest expenses	25,059	26,630
Exchange losses	655,614	457,884
Expenses from contracts recognised in accordance with the deposit accounting method	5,951	35,246
Separate value adjustments on receivables	64,280	31,885
Expenses for the company as a whole	71,891	64,814
Depreciation, amortisation, impairments	10,261	12,182
Expenses for services	36,085	27,593
Sundry expenses	42,062	39,887
	911,203	**696,121**
Total	78,971	22,993

Of the separate value adjustments, an amount of EUR 19.6 million (EUR 30.6 million) was attributable to accounts receivable and EUR 43.6 million (EUR 1.3 million) to retrocession recoverables.

7.5 Taxes on income

Domestic taxes on income, comparable taxes on income at foreign subsidiaries as well as deferred taxes in accordance with IAS 12 "Income Taxes" are recognised under this item.

The reader is referred to the remarks in section 3.2 "Summary of major accounting policies" regarding the basic approach to the recognition and measurement of deferred taxes.

An unchanged tax rate of 32.63% (rounded to 32.7%) was used to calculate the deferred taxes of the major domestic companies. It is arrived at from the corporate income tax rate of 15.0%, the German solidarity surcharge of 5.5% and a trade earnings tax rate of 16.8%. The Group tax rate consequently also amounts to 32.7% (32.7%). The deferred taxes at the companies abroad were calculated using the applicable country-specific tax rates.

Tax-relevant bookings on the Group level are made using the Group tax rate unless they refer specifically to individual companies.

Deferred tax liabilities on profit distributions of significant affiliated companies are established in the year when they are received.

Breakdown of taxes on income

The breakdown of actual and deferred income taxes was as follows:

Income tax N 82

in EUR thousand	2017	2016
Actual tax for the year under review	290,675	460,017
Actual tax for other periods	(13,245)	20,425
Deferred taxes due to temporary differences	(28,873)	(76,024)
Deferred taxes from loss carry-forwards	(24,482)	7,482
Change in deferred taxes due to changes in tax rates	(30,430)	(2,676)
Value adjustments on deferred taxes	54,397	(17,995)
Total	**248,042**	**391,229**

Domestic/foreign breakdown of recognised tax expenditure/income N 83

in EUR thousand	2017	2016
Current taxes		
Germany	254,125	413,063
Abroad	23,305	67,379
Deferred taxes		
Germany	(74,067)	(97,845)
Abroad	44,679	8,632
Total	**248,042**	**391,229**

The following table presents a breakdown of the deferred tax assets and liabilities into the balance sheet items from which they are derived.

Deferred tax assets and deferred tax liabilities of all Group companies N84

in EUR thousand	2017	2016
Deferred tax assets		
Tax loss carry-forwards	133,057	105,940
Loss and loss adjustment expense reserves	438,531	325,929
Benefit reserve	132,926	135,794
Other technical/non-technical provisions	51,062	71,228
Funds withheld	26,905	21,060
Deferred acquisition costs	15,094	44,434
Accounts receivable/reinsurance payable	19,253	45,183
Valuation differences relating to investments	24,257	36,748
Contract deposits	1,908	3,196
Other valuation differences	19,940	46,841
Value adjustments [1]	(81,431)	(27,527)
Total	**781,502**	**808,826**
Deferred tax liabilities		
Loss and loss adjustment expense reserves	96,960	215,852
Benefit reserve	307,960	149,531
Other technical/non-technical provisions	57,159	108,894
Equalisation reserve	1,108,655	1,119,135
Funds withheld	10,784	15,850
Deferred acquisition costs	182,155	186,623
Accounts receivable/reinsurance payable	88,884	71,446
Valuation differences relating to investments	205,389	255,699
Contract deposits	26,684	76,859
Present value of future profits on acquired life reinsurance portfolios (PVFP)	7,911	9,574
Other valuation differences	42,264	34,044
Total	**2,134,805**	**2,243,507**
Deferred tax liabilities	1,353,303	1,434,681

[1] Thereof on tax loss carry-forwards: EUR -80,933 thousand (EUR -26,880 thousand)

The deferred tax assets and deferred tax liabilities are shown according to their origin in the above table. Deferred taxes resulting from a single transaction and with respect to which the corresponding temporary valuation differences are simultaneously reversed were already netted on recognition. Further netting was made based on the timing of the reversal of temporary differences and other offsetting possibilities, ultimately resulting in the following disclosure of deferred tax assets and deferred tax liabilities in the balance sheet:

Netting of deferred tax assets and deferred tax liabilities N85

in EUR thousand	2017	2016
Deferred tax assets	466,564	408,292
Deferred tax liabilities	1,819,867	1,842,973
Net deferred tax liabilities	**1,353,303**	**1,434,681**

In view of the unrealised gains on investments and on currency translation recognised directly in equity in the financial year, actual and deferred tax expenditure – including amounts attributable to non-controlling interests – of EUR 61.8 million (EUR 4.8 million) was also recognised directly in equity.

The following table presents a reconciliation of the expected expense for income taxes with the actual expense for income taxes reported in the statement of income. The pre-tax result is multiplied by the Group tax rate in order to calculate the Group's expected expense for income taxes.

Reconciliation of the expected expense for income taxes with the actual expense N 86

in EUR thousand	2017	2016
Profit before taxes on income	1,292,619	1,617,655
Group tax rate	32.7%	32.7%
Expected expense for income taxes	422,686	528,973
Change in tax rates	(30,430)	(2,677)
Differences in tax rates affecting subsidiaries	(62,843)	(112,973)
Non-deductible expenses	76,312	44,122
Tax-exempt income	(140,821)	(41,654)
Tax expense/income not attributable to the reporting period	(42,861)	30,435
Value adjustments on deferred taxes/loss carry-forwards	54,397	(17,995)
Trade tax modifications	(32,769)	(39,645)
Other	4,371	2,644
Actual expense for income taxes	**248,042**	**391,229**

The expense for income taxes in the financial year was EUR 143.2 million lower than in the previous year at EUR 248.0 million (EUR 391.2 million). In addition to the lower pre-tax profit compared to the previous year, this was due among other things to changes in future applicable local tax rates in the United States and France and the associated remeasurement of deferred tax liabilities.

The effective tax rate amounted to 19.2% (24.2%).

Availability of non-capitalised loss carry-forwards

Unused tax loss carry-forwards, deductible temporary differences and tax credits of EUR 601.2 million (EUR 459.4 million) existed as at the balance sheet date. Making allowance for local tax rates, EUR 367.3 million (EUR 109.7 million) thereof was not capitalised since realisation is not sufficiently certain.

The assets-side unadjusted deferred taxes on loss carry-forwards and tax credits amounting to EUR 55.1 million (EUR 83.3 million) will probably be realised in an amount of EUR 15.5 million (EUR 17.6 million) within one year and in an amount of EUR 39.6 million (EUR 65.7 million) in the subsequent years.

In the year under review the actual taxes on income were reduced by EUR 5.2 million (EUR 0.5 million) because loss carry-forwards were used for which no deferred tax assets were established.

The write-down of deferred tax assets recognised in previous years resulted in a deferred tax expense of EUR 10.1 million (EUR 0.7 million) in the year under review. This is not opposed by any deferred tax income (EUR 18.1 million) from the reversal of earlier write-downs.

Excess deferred tax assets are recognised with respect to losses in the year under review or in the previous year only to the extent that, based on strong evidence, it is likely that the company concerned will generate sufficiently positive taxable results in the future. This evidence was provided for deferred tax assets of EUR 23.0 million (EUR 25.8 million).

No deferred taxes were established on liabilities-side taxable temporary differences amounting to EUR 50.6 million (EUR 40.2 million) in connection with interests in Group companies because the Hannover Re Group can control their reversal and will not reverse them in the foreseeable future.

Availability of loss carry-forwards that have not been capitalised:

Expiry of non-capitalised loss carry-forwards and temporary differences N 87

in EUR thousand	One to five years	Six to ten years	More than ten years	Unlimited	Total
Temporary differences	–	–	–	2,928	2,928
Loss carry-forwards	–	–	–	364,403	364,403
Total	**–**	**–**	**–**	**367,331**	**367,331**

8. Other notes

8.1 Derivative financial instruments and financial guarantees

Derivatives are financial instruments, the fair value of which is derived from an underlying instrument such as equities, bonds, indices or currencies. We use derivative financial instruments in order to hedge parts of our portfolio against interest rate and market price risks, optimise returns or realise intentions to buy/sell. In this context we take special care to limit the risks, select first-class counterparties and adhere strictly to the standards defined by investment guidelines.

The fair values of the derivative financial instruments were determined on the basis of the market information available at the balance sheet date. Please see section 3.2 "Summary of major accounting policies" with regard to the measurement models used.

Hannover Re holds derivative financial instruments to hedge interest rate risks from loans connected with the financing of real estate; these gave rise to recognition of other liabilities in an amount of EUR 1.0 million (EUR 2.5 million) and other financial assets at fair value through profit or loss in an amount of EUR 0.5 million (EUR 0.2 million).

Hannover Re's portfolio contained derivative financial instruments as at the balance sheet date in the form of forward exchange transactions taken out to hedge currency risks. These transactions gave rise to recognition of other liabilities in an amount of EUR 17.7 million (EUR 10.0 million) and other financial assets at fair value through profit or loss in an amount of EUR 2.0 million (EUR 16.8 million). The increase in equity from hedging instruments recognised directly in equity pursuant to IAS 39 in an amount of EUR 1.4 million (reduction in equity recognised directly in equity of EUR 4.9 million) derived solely from the forward exchange transactions taken out to hedge currency risks from long-term investments in foreign operations. These hedging instruments resulted in the recognition of other liabilities in an amount of EUR 2.4 million (EUR 2.3 million). Ineffective components of the hedge were recognised in profit or loss under other investment income in an amount of EUR 0.2 million (other investment expenses of EUR 0.6 million).

In order to hedge the risk of share price changes in connection with the stock appreciation rights granted under the share award plan, Hannover Re has taken out hedges since 2014 in the form of so-called equity swaps. The fair value of these instruments amounted to EUR 0.8 million as at the balance sheet date and was recognised under other liabilities (EUR 0.8 million recognised under other financial assets at fair value through profit or loss). The hedge gave rise to a decrease in equity from hedging instruments recognised directly in equity in an amount of EUR 1.5 million (EUR 0.9 million). Ineffective components of the hedge were recognised in a minimal amount under other investment expenses.

The maturities of the fair values and notional values of the hedging instruments described above can be broken down as follows:

Maturity structure of derivative financial instruments **N 88**

in EUR thousand	2017 Less than one year	One to five years	Five to ten years	31.12.2017
Interest rate hedges				
Fair values	(240)	(256)	–	(496)
Notional values	58,948	94,932	–	153,880
Currency hedges				
Fair values	(10,219)	(5,635)	–	(15,854)
Notional values	411,208	43,583	–	454,791
Share price hedges				
Fair values	(779)	–	–	(779)
Notional values	34,775	–	–	34,775
Total hedging instruments				
Fair values	(11,238)	(5,891)	–	(17,129)
Notional values	504,931	138,515	–	643,446

Maturity structure of derivative financial instruments **N 89**

in EUR thousand	2016 Less than one year	One to five years	Five to ten years	31.12.2016
Interest rate hedges				
Fair values	(337)	(1,973)	–	(2,310)
Notional values	44,918	120,414	–	165,332
Currency hedges				
Fair values	10,398	(3,172)	(354)	6,872
Notional values	814,730	28,534	2,093	845,357
Share price hedges				
Fair values	794	–	–	794
Notional values	32,294	–	–	32,294
Total hedging instruments				
Fair values	10,855	(5,145)	(354)	5,356
Notional values	891,942	148,948	2,093	1,042,983

The net changes in the fair value of these instruments resulted in a charge of EUR 3.8 million to the result of the financial year (EUR 6.6 million).

Hannover Re enters into derivative transactions on the basis of standardised master agreements that contain global netting agreements. The netting agreements set out below normally do not meet the criteria for netting in the balance sheet, since Hannover Re has no legal right whatsoever at the present moment in time to netting of the recognised amounts. The right to netting can, as a matter of principle, only be enforced upon occurrence of certain future defined events. Collateral furnished or received is recognised per counterparty up to at most the amount of the respective net liability or net asset.

Netting agreements **N 90**

in EUR thousand	2017				
	Fair value	Netting agreement	Cash collateral received/furnished	Other collateral received/furnished	Net amount
Derivative receivables	4,565	2,043	–	2,522	–
Derivative liabilities	18,676	2,043	3,595	10,239	2,799

Netting agreements **N 91**

in EUR thousand	2016				
	Fair value	Netting agreement	Cash collateral received/furnished	Other collateral received/furnished	Net amount
Derivative receivables	18,640	4,268	13,842	476	54
Derivative liabilities	9,969	4,268	–	487	5,214

Derivative financial instruments in connection with reinsurance

A number of treaties in life and health reinsurance meet criteria which require application of the stipulations contained in IFRS 4 "Insurance Contracts" governing embedded derivatives. These accounting regulations require that certain derivatives embedded in reinsurance contracts be separated from the underlying insurance contract ("host contract"), reported separately at fair value in accordance with IAS 39 "Financial Instruments: Recognition and Measurement" and recognised under investments. Fluctuations in the fair value of the derivative components are to be recognised through profit and loss in subsequent periods.

Within the scope of the accounting of "modified coinsurance" and "coinsurance funds withheld" (ModCo) reinsurance treaties, under which securities deposits are held by the ceding companies and payments rendered on the basis of the income from certain securities of the ceding company, the interest-rate risk elements are clearly and closely related to the underlying reinsurance arrangements. Embedded derivatives consequently result solely from the credit risk of the underlying securities portfolio.

Hannover Re calculates the fair values of the embedded derivatives in ModCo treaties using the market information available on the valuation date on the basis of a "credit spread" method. Under this method the derivative is valued at zero on the date when the contract commences and its value then fluctuates over time according to changes in the credit spreads of the securities. The derivative had a positive value of EUR 25.1 million (EUR 24.6 million) as at the balance sheet date and was recognised under other financial assets at fair value through profit or loss. In the course of the year the change in the fair value of the derivative gave rise to income of EUR 3.7 million before tax (EUR 0.5 million).

A derivative financial instrument was also unbundled from another similarly structured transaction. This gave rise to recognition of other financial assets at fair value through profit or loss in an amount of EUR 7.4 million (EUR 4.1 million). The performance of this derivative improved the result by EUR 3.5 million in the financial year (EUR 7.5 million).

A number of transactions concluded in the life and health reinsurance business group in previous years, under which Hannover Re companies offer their contracting parties coverage for risks from possible future payment obligations arising out of hedging instruments, are also to be classified as derivative financial instruments. The payment obligations result from contractually defined events and relate to the development of an underlying group of primary insurance contracts with statutory reserving requirements. The contracts are to be categorised and recognised as stand-alone credit derivatives pursuant to IAS 39. These derivative financial instruments were carried in equity on initial recognition because receivables recognised under other assets were to be carried in the same amount. Please see section 6.6 "Other assets". The fair value of these instruments was EUR 165.1 million (EUR 168.9 million) on the balance sheet date and was recognised under other liabilities. The change in value in subsequent periods is dependent upon the risk experience and led to an improvement of EUR 30.0 million (EUR 22.6 million) in investment income in the financial year.

A retrocession agreement exists in the area of life and health reinsurance under which the premiums were deposited with Hannover Re and invested in a structured bond. The retrocessionaire has furnished a guarantee for its fair value. In accordance with the requirements of IFRS 4 this guarantee was to be unbundled from the retrocession agreement and is carried as a derivative financial instrument at fair value. The derivative was recognised with a positive fair value of EUR 2.2 million

(EUR 10.6 million) as at the balance sheet date under other financial assets at fair value through profit or loss. In the course of the year the change in the fair value of the derivative resulted in a charge of EUR 7.4 million (income of EUR 10.1 million). Conversely, the performance of the structured bond, which is also measured at fair value, gave rise to income (expense) in the same amount.

In the area of life and health reinsurance a reinsurance treaty was also written with a financing component under which the amount and timing of the return flows are dependent on lapse rates within an underlying primary insurance portfolio. This treaty and a corresponding retrocession agreement, which were classified as financial instruments pursuant to IAS 39, resulted in the recognition of other liabilities of EUR 20.4 million and other financial assets at fair value through profit or loss in an amount of EUR 49.0 million. Altogether, these arrangements gave rise to an improvement in income of EUR 1.8 million in the year under review.

At the end of the year under review an index-linked cover was written for longevity risks. The resulting derivative was recognised as at the balance sheet date with a negative fair value of EUR 52.6 million under other liabilities. There were no effects on income owing to initial recognition close to the balance sheet date.

All in all, application of the standards governing the accounting for derivatives in connection with the technical account led to recognition of assets totalling EUR 86.3 million (EUR 40.6 million) as well as recognition of liabilities in an amount of EUR 244.7 million (EUR 174.3 million) from the derivatives resulting from technical items as at the balance sheet date. Improvements in investment income amounting to EUR 40.2 million (EUR 40.9 million) as well as charges to income of EUR 8.6 million (EUR 1.8 million) were recognised in the year under review from all separately measured derivatives in connection with the technical account.

Financial guarantees

Structured transactions were entered into in the life and health reinsurance business group in order to finance statutory reserves (so-called Triple-X or AXXX reserves) of US ceding companies. In each case such structures necessitated the involvement of a special purpose entity. The special purpose entities carry extreme mortality risks securitised by the cedants above a contractually defined retention and transfer these risks by way of a fixed/floating swap to a member company of the Hannover Re Group. The total amount of the contractually agreed capacities of the transactions is equivalent to EUR 3,229.1 million (EUR 3,674.6 million); an amount equivalent to EUR 2,525.9 million (EUR 2,745.8 million) had been taken up as at the balance sheet date. The variable payments to the special purpose entities that are guaranteed by the Hannover Re Group cover their payment obligations. Under some of the transactions the payments resulting from the swaps in the event of a claim are reimbursed by the parent companies of the cedants by way of compensation agreements. In this case the reimbursement claims from the compensation agreements are to be capitalised separately from and up to the amount of the provision.

Under IAS 39 these transactions are to be recognised at fair value as financial guarantees. To this end Hannover Re uses the net method, according to which the present value of the agreed fixed swap premiums is netted with the present value of the guarantee commitment. The fair value on initial recognition therefore amounted to zero. The higher of the fair value and the amount carried as a provision on the liabilities side pursuant to IAS 37 is recognised at the point in time when utilisation is considered probable. This was not the case as at the balance sheet date.

8.2 Related party disclosures

IAS 24 "Related Party Disclosures" defines related parties as group entities of a common parent, associated entities, legal entities under the influence of key management personnel and the key management personnel of the entity itself. Transactions between Hannover Rück SE and its subsidiaries, which are to be regarded as related parties, were eliminated through consolidation and are therefore not discussed in the notes to the consolidated financial statement. In the year under review the following significant business relations existed with related parties.

Talanx AG holds an unchanged majority interest of 50.22% in Hannover Rück SE. For its part, HDI Haftpflichtverband der Deutschen Industrie Versicherungsverein auf Gegenseitigkeit (HDI), Hannover, holds a stake of 79.0% in Talanx AG and therefore indirectly holds 39.7% (rounded) of the voting rights in Hannover Rück SE.

The business relationship between Hannover Rück SE and its subsidiary E+S Rückversicherung AG is based on a cooperation agreement. A retrocession by Hannover Rück SE to E+S Rückversicherung AG exists in property and casualty reinsurance. The exclusive responsibilities of E+S Rückversicherung AG for German business and of Hannover Rück SE for international markets have been preserved.

Companies belonging to the Talanx Group granted the Hannover Re Group insurance protection inter alia in the areas of public liability, building, contractors all risks, group accident and business travel insurance. Divisions of Talanx AG also performed services for the Hannover Re Group in the areas of taxes and general administration.

Talanx Reinsurance Broker AG grants Hannover Rück SE and E+S Rückversicherung AG a preferential position as reinsurers of cedants within the Talanx Group. In addition, Hannover Rück SE and E+S Rückversicherung AG are able to participate in the protection covers on the retention of Group cedants and share in the protection afforded by them. In certain circumstances Hannover Rück SE and E+S Rückversicherung AG are obliged to assume unplaced shares of the reinsurance of Group cedants from Talanx Reinsurance Broker AG.

The Hannover Re Group provides reinsurance protection for the HDI Group. To this extent, numerous underwriting business relations exist with related parties in Germany and abroad which are not included in Hannover Re's consolidation. This includes business both assumed and ceded at usual market conditions.

For the year under review and the previous year these business relations can be broken down as follows:

Business assumed and ceded in Germany and abroad N 92

	2017		2016	
in EUR thousand	Premium	Underwriting result	Premium	Underwriting result
Business assumed				
Property and casualty reinsurance	482,064	22,750	479,433	15,045
Life and health reinsurance	149,286	24,165	149,279	21,470
	631,350	**46,915**	**628,712**	**36,515**
Business ceded				
Property and casualty reinsurance	(11,902)	(13,524)	(7,091)	(5,095)
Life and health reinsurance	(59,248)	(9,319)	(34,237)	(11,201)
	(71,150)	**(22,843)**	**(41,328)**	**(16,296)**
Total	**560,200**	**24,072**	**587,384**	**20,219**

The reinsurance relationships with related parties in the year under review are shown with their total amounts in the table.

In the context of a bond issue by Talanx AG the Group companies Hannover Rück SE and E+S Rückversicherung AG invested in a nominal amount of EUR 47.0 million in the issued bearer debt, which has a coupon of 3.125%. The carrying amount of the instrument, which is recognised under fixed-income securities held to maturity, was EUR 48.3 million (EUR 48.3 million) including accrued interest of EUR 1.3 million (EUR 1.3 million).

HDI Lebensversicherung AG, Cologne, participated in a nominal amount of EUR 50.0 million in the subordinated bond issued by Hannover Rück SE in September 2014 with a coupon of 3.375%.

Within the contractually agreed framework Talanx Asset Management GmbH performs investment and asset management services for Hannover Rück SE and the vast majority of its subsidiaries. Assets in special funds are managed by Ampega Investment GmbH. Talanx Immobilien Management GmbH performs services for Hannover Re under a number of management contracts.

In 2014 Hannover Rück SE reached an agreement with Talanx Asset Management GmbH that allows Talanx Asset Management GmbH to use software for checking sanctions lists.

Under long-term lease arrangements companies belonging to the Hannover Re Group rented out business premises in 2015 to Talanx Service AG, Hannover. In addition, lease agreements exist with Talanx Service AG for use of a portion of the space in our data centre.

Furthermore, IT and management services were performed for Talanx Reinsurance Broker AG, Hannover, under service contracts.

Actuarial opinions with respect to the pension commitments given to staff are drawn up for Hannover Rück SE and E+S Rückversicherung AG by Talanx Pensionsmanagement AG and HDI Lebensversicherung AG under an actuarial service contract.

Talanx AG performs various services in the area of taxes for a number of investment vehicles of the Hannover Re Group in the asset classes of private equity and real estate. In this regard corresponding agreements have been concluded with altogether nine Hannover Re companies.

Since 2012 a service agreement has existed between Hannover Rück SE and Talanx AG regarding the purchase of services for operation of data acquisition software.

Hannover Rück SE has concluded a service contract with Talanx Service AG in the area of flight services as well as a contract regarding the reciprocal provision of business continuity management services.

Remuneration and shareholdings of the management boards of the parent company

The remuneration of the active members of the Executive Board of Hannover Re amounted to altogether EUR 8.0 million (EUR 9.0 million). The total remuneration (excluding pension payments) of former members of the Executive Board and their surviving dependants stood at EUR 0.3 million (EUR 0.3 million). The pension payments to previous members of the Executive Board and their surviving dependants, for whom 17 (16) pension commitments existed, totalled EUR 1.6 million (EUR 1.6 million) in the year under review; altogether, a provision of EUR 24.7 million (EUR 25.3 million) has been set aside for these commitments.

The total remuneration of the Supervisory Board of Hannover Re amounted to EUR 1.0 million (EUR 1.0 million). There are no pension commitments to former members of the Supervisory Board or their surviving dependants.

The members of the governing bodies did not receive any advances or loans in the year under review. Nor were there any other material reportable circumstances or contractual relationships as defined by IAS 24 between companies of the Hannover Re Group and the members of the governing bodies or their related parties in the year under review. Furthermore, above and beyond the aforementioned remuneration as Supervisory Board members at Group companies, the members of the Supervisory Board were not in receipt of any remuneration or benefits for personally rendered services as defined by section 5.4.6 Para. 3 of the German Corporate Governance Code.

All other information on the remuneration of the governing bodies, directors' dealings and shareholdings as well as the structure of the remuneration system for the Executive Board is contained in the remuneration report from page 111 onwards. This remuneration report is based on the recommendations of the German Corporate Governance Code and contains information which also forms part of the notes to the 2017 consolidated financial statement as required by IAS 24 "Related Party Disclosures". In addition, we took into account the more specific provisions of DRS 17 "Reporting on the Remuneration of Members of Governing Bodies". Under German commercial law, too, this information includes data specified as mandatory for the notes (§ 314 HGB) and the management report (§ 315 HGB). These details are discussed as a whole in the remuneration report. Consequently, we have not provided any further explanation in the notes.

8.3 Share-based payment

In the year under review the following share-based payment plans with cash settlement existed within the Hannover Re Group:

1. Stock Appreciation Rights Plan (in effect since 2000, cancelled in stages from 2011 onwards and currently being wound up)
2. Share Award Plan (valid since 2011)

Stock Appreciation Rights Plan

With effect from 1 January 2000 the Executive Board of Hannover Rück SE, with the consent of the Supervisory Board, introduced a virtual stock option plan that provides for the granting of stock appreciation rights to certain managerial staff. The content of the stock option plan is based solely on the Conditions for the Granting of Stock Appreciation Rights. All the members of the Group's management are eligible for the award of stock appreciation rights. Exercise of the stock appreciation rights does not give rise to any entitlement to the delivery of shares of Hannover Rück SE, but merely to payment of a cash amount linked to the performance of the Hannover Rück SE share.

The Conditions for the Granting of Stock Appreciation Rights were cancelled for all eligible recipients. Awarded stock appreciation rights continue to be exercisable until the end of their period of validity.

Stock appreciation rights were first granted for the 2000 financial year and were awarded separately for each subsequent financial year (allocation year) until cancellation of the plan, provided the performance criteria defined in the Conditions for the Granting of Stock Appreciation Rights were satisfied.

The maximum period of the stock appreciation rights is ten years, commencing at the end of the year in which they are awarded. Stock appreciation rights which are not exercised by the end of the 10-year period lapse. Stock appreciation rights may only be exercised after a waiting period and then only within four exercise periods each year. Upon expiry of a four-year waiting period a maximum 60% of the stock appreciation rights awarded for an allocation year may be exercised. The waiting period for each additional 20% of the stock appreciation rights awarded for this allocation year to a member of the managerial staff is one further year. Each exercise period lasts for ten trading days, in each case commencing on the sixth trading day after the date of publication of the quarterly report of Hannover Rück SE.

Upon exercise of a stock appreciation right the amount paid out to the entitled party is the difference between the basic price and the current market price of the Hannover Rück SE share at the time of exercise. In this context, the basic price corresponds to the arithmetic mean of the closing prices of the Hannover Rück SE share on all trading days of the first full calendar month of the allocation year in question. The current market price of the Hannover Rück SE share at the time when stock appreciation rights are exercised is determined by the arithmetic mean of the closing prices of the Hannover Rück SE share on the last twenty trading days prior to the first day of the relevant exercise period.

The amount paid out is limited to a maximum calculated as a quotient of the total volume of compensation to be granted in the allocation year and the total number of stock appreciation rights awarded in the year in question. In the event of cancellation or termination of the employment relationship as a consequence of a termination agreement or a set time limit, a holder of stock appreciation rights is entitled to exercise all such rights in the first exercise period thereafter. Stock appreciation rights not exercised in this period and those in respect of which the waiting period has not yet expired shall lapse. Retirement, disability or death of the member of management shall not be deemed to be termination of the employment relationship for the purpose of exercising stock appreciation rights.

The allocations for the years 2007 and 2009 to 2011 gave rise to commitments in the 2017 financial year shown in the following table. No allocations were made for the years 2005 or 2008.

Stock appreciation rights of Hannover Rück SE **N 93**

	Allocation year			
	2011	2010	2009	2007
Award date	15.3.2012	8.3.2011	15.3.2010	28.3.2008
Period	10 years	10 years	10 years	10 years
Waiting period	4 years	4 years	2 years	2 years
Basic price (in EUR)	40.87	33.05	22.70	34.97
Participants in year of issue	143	129	137	110
Number of rights granted	263,515	1,681,205	1,569,855	926,565
Fair value at 31 December 2017 (in EUR)	32.21	8.92	8.76	10.79
Maximum value (in EUR)	32.21	8.92	8.76	10.79
Weighted exercise price	32.21	8.92	8.76	10.79
Number of rights existing at 31 December 2017	63,533	94,542	22,510	–
Provisions at 31 December 2017 (in EUR million)	2.05	0.84	0.20	–
Amounts paid out in the 2017 financial year (in EUR million)	1.50	2.70	0.17	0.09
Expense in the 2017 financial year (in EUR million)	0.30	0.01	–	–

The existing stock appreciation rights are valued on the basis of the Black-Scholes option pricing model.

The calculations were based on the price of the Hannover Re share of EUR 108.20 as at the reference date of 13 December 2017, expected volatility of 20.23% (historical volatility on a five-year basis), an expected dividend yield of 4.62% and risk-free interest rates of -0.75% for the 2009 allocation year, -0.64% for the 2010 allocation year and -0.48% for the 2011 allocation year.

In the 2017 financial year the waiting period expired for 100% of the stock appreciation rights awarded in 2007, 2009 and 2010 and for 80% of those awarded in 2011. 8,356 stock appreciation rights from the 2007 allocation year, 19,649 stock appreciation rights from the 2009 allocation year, 303,026 stock appreciation rights from the 2010 allocation year and 46,424 stock appreciation rights from the 2011 allocation year were exercised. The total amount paid out stood at EUR 4.5 million.

On this basis the aggregate provisions – included in the sundry non-technical provisions – amounted to EUR 3.1 million (EUR 7.3 million) for the 2017 financial year. The expense totalled altogether EUR 0.3 million (EUR 1.1 million).

Share Award Plan

With effect from the 2011 financial year the Supervisory Board of Hannover Rück SE implemented a Share Award Plan for the members of the Executive Board of Hannover Re; this provides for the granting of stock participation rights in the form of virtual shares (referred to as "share awards"). The Executive Board of Hannover Re decided to adopt a Share Award Plan for certain management levels at Hannover Re as well with effect from the 2012 financial year.

The Share Award Plan replaces the cancelled Stock Appreciation Rights Plan. Please see our remarks under "Stock Appreciation Rights Plan" in this section. The share awards do not establish any claim against Hannover Re to the delivery of stock, but merely to payment of a cash amount in accordance with the conditions set out below.

The members of the Executive Board and management of Hannover Re who are eligible recipients under the Share Award Plan are those who have been allowed a contractual claim to the granting of share awards and whose service/employment relationship exists at the time when the share awards are granted and does not end through cancellation or a termination agreement on an effective date prior to expiry of the vesting period.

Share awards were granted separately for the first time for the 2011 financial year and then for each financial year (allocation year) thereafter. The first payout of share awards took place in the 2016 financial year for those share awards that had been allocated in the 2011 financial year to the eligible members of the Executive Board. In the 2017 financial year the first payout was also made to the participating senior executives.

The total number of share awards granted is based on the value per share of Hannover Rück SE. The value per share is established according to the unweighted arithmetic mean of the Xetra closing prices of the Hannover Re share. In the conditions applicable to members of the Executive Board a period of five trading days before to five trading days after the meeting of the Supervisory Board that approves the consolidated financial statement for the financial year just-ended is envisaged for the calculation. For senior executives a period of twenty trading days before to ten trading days after the meeting of the Supervisory Board that approves the consolidated financial statement for the financial year just-ended has been agreed. The prices calculated in this way also determine the payout value of the share awards that have become payable. The total number of share awards granted is established by dividing the amount available for the granting of share awards to the respective eligible recipients by the value per share, rounded up to the next full share. For members of the Executive Board 20% and for senior executives 40% or 35% – according to management levels – of the defined variable remuneration shall be granted in the form of share awards.

The share awards are granted automatically without any requirement for a declaration. Following expiry of a vesting period of four years the value of one Hannover Re share calculated at the disbursement date is paid out for each share award. This value is calculated according to the provisions of the preceding paragraph.

The eligible recipient shall be paid an amount that corresponds to the sum total of the values of the share awards calculated at the disbursement date for which the vesting period of four years has expired. The amount is to be paid in the month after expiry of the determinative period for calculating the value per share according to the preceding paragraphs.

In addition, upon payment of the value of the share awards, a sum shall be paid out in the amount of the dividend insofar as dividends were distributed to shareholders. The amount of the dividend is the sum total of all dividends per share paid out during the term of the share awards multiplied by the number of share awards due for disbursement to the eligible recipient at the disbursement date. In the event of early disbursement of the share awards, the value of the dividends shall only be paid out for the period until occurrence of the event that triggers early disbursement. No pro rata allowance shall be made for dividends that have not yet been distributed.

In the event that the Board mandate or service relationship with the member of the Executive Board or the employment relationship with the manager ends, the eligible recipient shall retain his claims to payment of the value of already granted share awards after expiry of the applicable vesting period, unless such termination is based on resignation of office/voluntary termination on the part of the member of the Executive Board or voluntary termination on the part of the manager or dismissal by Hannover Re for a compelling reason. In the event of death the claims arising out of the already granted and/or still to be granted share awards pass to the heirs.

Any entitlement to the granting of share awards after leaving the company is excluded. This shall not apply with respect to claims to variable remuneration acquired (pro rata) in the last year of service of the eligible recipient in the event of exit from the company on account of non-reappointment, occurrence of the pensionable event or death.

The Share Award Plan of Hannover Rück SE gives rise to the amounts shown in the following table.

Share awards of Hannover Rück SE N 94

	Allocation year								
	2017	2016		2015		2014		2013	
	Antici-pated allocation	Final allocation 2017 for 2016	Antici-pated allocation	Final allocation 2016 for 2015	Antici-pated allocation	Final allocation 2015 for 2014	Antici-pated allocation	Final allocation 2014 for 2013	Antici-pated allocation
Valuation date									
Executive Board	29.12.2017	16.3.2017	30.12.2016	17.3.2016	30.12.2015	17.3.2015	30.12.2014	18.3.2014	30.12.2013
Senior executives	29.12.2017	23.3.2017	30.12.2016	24.3.2016	30.12.2015	24.3.2015	30.12.2014	25.3.2014	30.12.2013
Value per share award in EUR									
Executive Board	104.90	107.15	102.80	97.64	105.65	89.06	74.97	60.53	62.38
Senior executives	104.90	107.03	102.80	95.30	105.65	87.26	74.97	61.38	62.38
Number of allocated share awards in the allocation year									
Executive Board	9,537	10,244	10,704	11,244	9,355	12,172	13,308	16,631	14,418
Senior executives	64,902	77,325	81,322	79,383	65,107	85,460	85,159	99,783	91,660
Other adjustments[1]		–	–	(284)	–	(3,047)	–	(4,795)	–
Total	74,439	87,569	92,026	90,343	74,462	94,585	98,467	111,619	106,078

[1] This figure results from originally granted share awards that have since lapsed.

Development of the provision for share awards of Hannover Rück SE N 95

	Allocation year						Total
in TEUR	2017	2016	2015	2014	2013	2012	
Allocation 2012	–	–	–	–	–	1,839	1,839
Allocation 2013	–	–	–	–	1,426	1,442	2,868
Allocation 2014	–	–	–	1,534	2,364	2,549	6,447
Allocation 2015	–	–	1,658	3,102	4,288	5,020	14,068
Allocation 2016	–	1,918	2,429	1,920	2,177	2,133	10,577
Provision at 31 December of the previous year	**–**	**1,918**	**4,087**	**6,556**	**10,255**	**12,983**	**35,799**
Allocation 2017	1,559	2,127	2,284	2,409	2,861	881	12,121
Utilisation 2017	–	–	–	–	–	13,864	13,864
Release 2017	–	–	–	–	–	–	–
Provision at 31 December of the year under review	**1,559**	**4,045**	**6,371**	**8,965**	**13,116**	**–**	**34,056**

The aggregate provision – recognised under the sundry non-technical provisions – amounted to EUR 34.1 million (EUR 35.8 million) as at the balance sheet date.

The personnel expense for share awards in the case of members of the Executive Board is spread on an accrual basis across the relevant term of the share awards or the shorter term of the service contracts; in the case of senior executives the personnel expense is spread across the relevant term of the share awards. The allocation of the financial year recognised in the expenditures on personnel totalled altogether EUR 12.1 million (EUR 10.6 million). This consists of the expense for share awards of the 2017 financial year as well as the dividend claim and the additionally earned portion of the share awards granted in earlier financial years. The value of the share awards finally granted is also influenced by movements in the share price. The sum total of the dividends included in the expenditures on personnel for earlier financial years amounted to EUR 2.0 million (EUR 2.0 million). The distributed dividend is recognised, with no allowance made for expected dividend payments. Dividend claims are recognised in the discounted amounts.

In the year under review the 16,452 share awards of the Executive Board finally allocated in 2012 with a value of EUR 107.15 each plus the dividend entitlement of EUR 15.00 were paid out to the eligible members of the Executive Board. The 97,144 share awards of the senior executives for the 2012 financial year were paid out in 2017 with a value of EUR 107.03 each plus the dividend entitlement of EUR 15.00. The allocation to the provision for the 2012 share awards results from the difference between the share price as at the last balance sheet date (EUR 102.80) and the price from March 2017 on which the payout of the share awards was based (EUR 107.15 and EUR 107.03 respectively).

With regard to the effects of the equity swaps taken out to hedge price risks, please see our explanatory remarks in section 8.1 “Derivative financial instruments and financial guarantees”.

8.4 Staff and expenditures on personnel

Staff

The average number of staff at the companies included in the consolidated financial statement of the Hannover Re Group during the reporting period was 3,089 (2,804). As at the balance sheet date altogether 3,251 (2,893) staff were employed by the Hannover Re Group, with 1,385 (1,349) employed in Germany and 1,866 (1,544) working for the consolidated Group companies abroad.

Personnel information N 96

	2017					2016	
	31.3.	30.6.	30.9.	31.12.	Average	31.12.	Average
Number of employees (excluding Board members)	3,045	3,035	3,220	3,251	3,089	2,893	2,804

Expenditures on personnel

The expenditures on insurance business, claims expenses (claims settlement) and expenditures on the administration of investments include the following personnel expenditures:

Personnel expenditures N 97

in EUR thousand	2017	2016
a) Wages and salaries	274,375	258,111
	274,375	**258,111**
b) Social security contributions and expenditure on provisions and assistance		
ba) Social security contributions	25,486	22,082
bb) Expenditures for pension provision	26,551	25,520
bc) Expenditures for assistance	4,716	5,016
	56,753	**52,618**
Total	**331,128**	**310,729**

8.5 Earnings per share and dividend proposal

Calculation of the earnings per share **N 98**

	2017	2016
Group net income in EUR thousand	958,555	1,171,229
Weighted average of issued shares	120,596,977	120,596,997
Basic earnings per share in EUR	7.95	9.71
Diluted earnings per share in EUR	7.95	9.71

The earnings per share is calculated by dividing the net income attributable to the shareholders of Hannover Rück SE by the weighted average number of shares outstanding within the period under review.

Neither in the year under review nor in the previous reporting period were there any dilutive effects. The weighted average of the issued shares was, as in the previous year, slightly lower than the value of the shares in circulation on the balance sheet date. In the context of the employee share option plan Hannover Re acquires treasury shares and sells them at a later date to eligible employees. The weighted average number of shares does not include 18,805 (16,413) treasury shares pro rata temporis for the duration of the holding period. For further details please see our comments in section 6.13 "Shareholders' equity and treasury shares".

There were no other extraordinary components of income which should have been recognised or disclosed separately in the calculation of the earnings per share.

The earnings per share could potentially be diluted in future through the issue of shares or subscription rights from the authorised or conditional capital.

Dividend per share

A dividend of EUR 603.0 million (EUR 572.8 million) was paid in the year under review for the 2016 financial year.

It will be proposed to the Annual General Meeting on 7 May 2018 that a dividend of EUR 3.50 per share as well as a special dividend of EUR 1.50 per share should be paid for the 2017 financial year. This corresponds to a total distribution of EUR 603.0 million. The dividend proposal does not form part of this consolidated financial statement.

8.6 Lawsuits

Member companies of the Hannover Re Group are involved in judicial and supervisory procedures as well as in arbitration proceedings as part of the conduct of insurance and reinsurance business. Depending upon the subject matter of the procedure, the Hannover Re Group sets aside provisions for the amount in dispute in such proceedings – for the most part in the technical account and in exceptional cases as a charge to other income and expenses – if and to the extent that the resulting commitments are likely to materialise and their amount can be estimated with sufficient accuracy. The provision established in each case covers the expense that can be expected in our assessment as at the balance sheet date.

Neither the outcome nor the duration of pending procedures can be definitively foreseen at the time when provisions are established. The final liabilities of Hannover Re may diverge considerably from the constituted provisions because the assessment of probability and the quantification of these uncertain liabilities in large measure require estimates that may prove not to be accurate as the proceedings in question continue to progress. This is also true of procedures for which no provisions were established. Insofar as a commitment exists under such procedures as at the balance sheet date that may possibly but will probably not result in a loss, the Hannover Re Group estimates this potential loss – where practicable – and reports a contingent liability. For estimation purposes Hannover Re takes into account a number of factors. These include, among others, the nature of the claim, the status of the procedure concerned, decision of courts and arbitration bodies, prior settlement discussions, experience from comparable cases as well as expert opinions and the assessments of legal advisers and other experts. If a provision has been established for a particular procedure, a contingent liability is not recognised.

The lawsuits pending in the year under review and as at the balance sheet date were not material for the Hannover Re Group either individually or combined. Furthermore, no contingent liabilities from lawsuits were to report as at the balance sheet date.

8.7 Contingent liabilities and commitments

Hannover Rück SE has secured by subordinated guarantee the subordinated debts issued by Hannover Finance (Luxembourg) S.A. in the 2010 and 2012 financial years in amounts of EUR 500.0 million each.

The guarantees given by Hannover Rück SE for the subordinated debts attach if the issuer fails to render payments due under the bonds. The guarantees cover the relevant bond volumes as well as interest due until the repayment dates. Given the fact that interest on the bonds is partly dependent on the capital market rates applicable at the interest payment dates (floating rates), the maximum undiscounted amounts that can be called cannot be estimated with sufficient accuracy. Hannover Rück SE does not have any rights of recourse outside the Group with respect to the guarantee payments.

As security for technical liabilities to our US clients, we have established two trust accounts (master trust and supplemental trust) in the United States. They amounted to EUR 3,716.4 million (EUR 3,850.7 million) and EUR 71.5 million (EUR 45.6 million) respectively as at the balance sheet date. The securities held in the trust accounts are shown as available-for-sale investments. In addition, we furnished further collateral to ceding companies in an amount of EUR 1,946.5 million (EUR 1,857.5 million) in the form of so-called "single trust funds". This amount includes a sum equivalent to EUR 1,634.5 million (EUR 1,328.7 million) which was furnished by investors as security for potential reinsurance obligations from ILS transactions.

As part of our business activities we hold collateral available outside the United States in various blocked custody accounts and trust accounts, the total amount of which in relation to the Group's major companies was EUR 3,173.0 million (EUR 2,954.6 million) as at the balance sheet date.

The securities held in the blocked custody accounts and trust accounts are recognised predominantly as available-for-sale investments.

Letter of credit (LoC) facilities existed with a number of financial institutions as at the balance sheet date in a total volume equivalent to EUR 2,890.9 million (EUR 2,826.0 million) and with various terms maturing at the latest in 2022.

As security for our technical liabilities, various financial institutions have furnished sureties for our company in the form of letters of credit. The total amount as at the balance sheet date was EUR 1,216.9 million (EUR 1,343.7 million).

A number of LoC facilities include standard market contractual clauses that allow the banks rights of cancellation in the event of material changes in our shareholding structure or trigger a requirement on the part of Hannover Re to furnish collateral upon materialisation of major events, for example if our rating is significantly downgraded. Please see also our explanatory remarks in the "Financial position" section of the management report, page 58, on the information pursuant to § 315 Para. 4 German Commercial Code (HGB).

We put up own investments with a book value of EUR 17.2 million (EUR 49.8 million) as collateral for existing derivative transactions. We received collateral with a fair value of EUR 3.0 million (EUR 17.7 million) for existing derivative transactions.

As security for liabilities in connection with participating interests in real estate companies and real estate transactions the usual collateral under such transactions has been furnished to various banks, the amount of which totalled EUR 508.2 million (EUR 594.4 million) as at the balance sheet date.

Outstanding capital commitments with respect to alternative investments exist on the part of the Group in an amount of EUR 1,201.9 million (EUR 1,096.4 million). These primarily involve as yet unfulfilled payment obligations from investment commitments given to private equity funds and venture capital firms.

Group companies are members of the association for the reinsurance of pharmaceutical risks and several atomic and nuclear pools. The failure of one of the other pool members to meet its liabilities would result in an additional call according to the quota participation.

Hannover Rück SE has provided an open-ended guarantee limited to EUR 11.3 million in favour of the pension fund "The Congregational & General Insurance Plc Pension and Life Assurance Scheme" of the now extinguished Congregational & General Insurance Plc., Bradford, United Kingdom, at usual market conditions.

The application of tax regulations may not have been resolved at the time when tax items are brought to account. The calculation of tax refund claims and tax liabilities is based on what we consider to be the regulations most likely to be applied in each case. The revenue authorities may, however, take a differing view, as a consequence of which additional tax liabilities could arise in the future.

Hannover Re enters into contingent liabilities as part of its normal business operations. A number of reinsurance treaties concluded by Group companies with outside third parties include letters of comfort, guarantees or novation agreements under which Hannover Rück SE guarantees the liabilities of the subsidiary in question or enters into the rights and obligations of the subsidiary under the treaties if particular constellations materialise.

8.8 Rent and leases

Non-cancellable operating leases will give rise to the following future minimum payments payable and receivable in subsequent years.

Leased properties

Future minimum lease payments payable N 99

in EUR thousand	Amounts payable
2018	15,628
2019	14,737
2020	11,353
2021	10,114
2022	8,556
Subsequent years	187,355

In the year under review expenses from operating leases of EUR 13.7 million (EUR 11.3 million) were included in the result for the period. As part of the detailed analysis conducted in connection with the implementation of IFRS 16, two long-term land leases were identified that led to the increased non-cancellable future minimum lease payments payable.

Rented properties

Future minimum lease payments receivable N 100

in EUR thousand	Amounts receivable
2018	98,288
2019	95,104
2020	92,401
2021	84,535
2022	72,214
Subsequent years	130,822

The rental payments receivable result principally from the long-term renting out of properties by the Group's real estate companies.

8.9 Fee paid to the auditor

The appointed auditor of the consolidated financial statement of Hannover Re as defined by § 318 German Commercial Code (HGB) is KPMG AG Wirtschaftsprüfungsgesellschaft (KPMG AG). The expense recognised for the fees paid to KPMG AG and worldwide member firms of KPMG International (KPMG) in the year under review can be broken down as follows:

Fee paid to the auditor N 101

in EUR thousand	2017 KPMG worldwide	2017 thereof KPMG AG	2016 KPMG worldwide	2016 thereof KPMG AG
Services relating to auditing of the financial statements	8,953	3,328	8,540	2,445
Other assurance services	548	432	401	320
Tax consultancy services	214	21	678	515
Other services	1,311	1,093	2,283	2,088
Total	**11,026**	**4,874**	**11,902**	**5,368**

The fee for services relating to auditing of the financial statements performed by KPMG AG Wirtschaftsprüfungsgesellschaft includes above all the fees for the auditing of the consolidated financial statement including legally required extensions of the mandate, the review report on the interim report as well as audits of annual financial statements and audits of the Solvency II balance sheets of the subsidiaries included in the consolidated financial statement. The fees for other assurance services relate to legally or contractually required audits. The fees for tax consultancy services include, in particular, fees for support services provided for the preparation of tax returns and tax consulting on specific matters. The fees for other services encompass consultancy services connected with the initial application of new accounting principles, training activities relating to current developments in accounting practice as well as quality-assuring support services and consultancy services in connection with IT.

The auditor responsible for performance of the audit engagement as defined by § 38 Para. 2 of the Professional Charter for Accountants / Certified Auditors (Berufssatzung WP / vBP) as amended on 21 June 2016 is Mr. Florian Möller. He served as the engagement partner responsible for the audit of the annual and consolidated financial statements for the first time as at 31 December 2015.

8.10 Events after the balance sheet date

The changes in tax legislation approved by the US administration at the end of 2017 entered into force on 1 January 2018. These provide for new tax regulations that have considerable financial implications for the subsidiaries operating in the United States. It is unlikely that any appreciable negative effects on income will be incurred as a result.

In this regard we would refer to our remarks in the "Opportunity and risk report" on page 80.

Hannover, 7 March 2018

Executive Board

Wallin | Althoff | Chèvre | Gräber

Dr. Miller | Dr. Pickel | Vogel

Independent Auditor's Report

to Hannover Rück SE, Hannover

Statement on the audit of the consolidated financial statement and the combined management report

Audit opinions

We have audited the consolidated financial statement of Hannover Rück SE, Hannover, and its subsidiaries (the Group) – comprising the consolidated balance sheet as at 31 December 2017, the consolidated statement of income, the consolidated statement of comprehensive income, the consolidated statement of changes in shareholders' equity and the consolidated cash flow statement for the financial year from 1 January to 31 December 2017 as well as the notes to the consolidated financial statement, including a summary of major accounting policies. In addition, we audited the combined management report of Hannover Rück SE for the financial year from 1 January 2017 to 31 December 2017. In accordance with German statutory requirements, we did not audit the contents of the non-financial information statement and the declaration on corporate governance, which are contained in the section "Non-financial information statement" and in the section "Enterprise management" within the combined management report, or the disclosures identified as unaudited that are contained in the combined management report.

In our opinion, based on the findings of the audit,

- the attached consolidated financial statement complies in all material respects with IFRS, as applicable in the EU, and with the additional requirements of German law applicable pursuant to § 315e Para. 1 Commercial Code (HGB) and gives a true and fair view of the net assets and financial position of the Group as at 31 December 2017 as well as its results of operations for the financial year from 1 January to 31 December 2017 in accordance with these requirements, and
- the attached combined management report provides an accurate view overall of the position of the Group. In all material respects this combined management report is consistent with the consolidated financial statement, complies with German legal requirements and suitably presents the opportunities and risks of future development. Our audit opinion on the combined management report does not extend to the contents of the aforementioned components of the non-financial information statement and of the declaration on corporate governance or to the disclosures of the combined management report identified as unaudited that are contained in the combined management report.
- Pursuant to § 322 Para. 3 Sentence 1 Commercial Code (HGB), we confirm that our audit did not give rise to any reservations concerning the accuracy of the consolidated financial statement and the combined management report.

Basis of the audit opinions

We conducted our audit of the consolidated financial statement and the combined management report in conformity with § 317 Commercial Code (HGB) and the EU Audit Regulation (No. 537/2014) with due regard to German generally accepted standards for the auditing of financial statements promulgated by the Institute of Public Auditors in Germany (IDW). Our responsibility according to these requirements and principles is described more extensively in the section of our audit report entitled "Responsibility of the auditor for the auditing of the consolidated financial statement and the combined management report". We are independent of the Group companies in conformity with the requirements of European law as well as German commercial law and professional standards and we fulfilled our other German professional duties in conformity with these requirements. Furthermore, we confirm pursuant to Article 10 (2) letter f) EU Audit Regulation that we did not provide any prohibited non-audit services as defined by Article 5 (1) EU Audit Regulation. We are of the opinion that the audit evidence obtained is sufficient and appropriate to serve as a basis for our audit opinions on the consolidated financial statement and the combined management report.

Audit matters of particular importance in the auditing of the consolidated financial statement

Audit matters of particular importance are those matters that, in our professional judgement, are of the greatest significance to our audit of the consolidated financial statement for the financial year from 1 January 2017 to 31 December 2017. These matters were considered in the context of our audit of the consolidated financial statement as a whole and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters. The presentation below follows the breakdown of the balance sheet items in the consolidated financial statement.

Measurement of financial instruments measured using valuation models

With regard to the accounting policies please see the explanatory remarks in the notes to the consolidated financial statement on pages 159 to 162. In addition, further information on the items in the financial statement is provided on pages 188 to 204. Remarks on the risks deriving from financial instruments are provided in the combined management report on pages 94 to 96.

The risk for the consolidated financial statement

The investments amount to EUR 50,960.3 million as at the balance sheet date. Of these investments, financial assets amounting to EUR 34,603.0 million – as shown on page 201 of the notes – are measured at fair value. In turn, of these financial instruments, fair values of EUR 33,574.8 million are determined using valuation models or values indicated by third parties.

The measurement of financial instruments, the fair values of which have to be determined using valuation models or values indicated by third parties, is subject to uncertainty. Measurement using valuation models in consideration of parameters that can be derived from active markets is especially relevant to non-exchange-traded securities, other loans and derivatives. The scope for discretion is greater, the more input factors are used that are not observable on the market but are instead based on company estimates.

Extensive disclosures in the notes are required regarding the valuation methods and scope for discretion in connection with the measurement of financial instruments.

Our approach in the audit

Our audit of the financial instruments was conducted with the support of valuation specialists on a risk-oriented basis. In particular, it included the following principal activities:

- We audited the process used to enter the portfolio data and measurement parameters (interest rate curves, spreads) in the portfolio management system, including the controls set up in this regard. We convinced ourselves of the effectiveness of the installed controls by means of functional checks.
- In the case of financial instruments measured using a valuation model, we assessed IFRS conformity and the adequacy of the respective models as well as of the determination of the assumptions and parameters incorporated into the valuation for a selection based on risk considerations.
- On the basis of risk considerations, we verified the calculated fair values of selected items according to our own calculations or made a comparison with external information. The checks for financial instruments were made with the support of our valuation specialists. In this regard, we derived parameters incorporated into the calculation from market data, calculated our own fair values and compared them with the company's results.
- Based on the fair values determined by the company, we convinced ourselves that the subsequent balance sheet valuation and the implications for profit or loss are accurate. In this connection we assessed whether write-ups and write-downs were suitably taken and recognised.
- We reviewed the disclosures in the notes to verify whether they comply with the accounting standards and, in so doing, we paid particular attention to the suitable presentation of the valuation methods.

Our conclusions

The measurement models used are consistent with IFRS and appropriate overall. The input factors used by the company are appropriate overall. The explanatory remarks and disclosures contained in the notes to the consolidated financial statement are in conformity with the accounting standards.

Measurement of the loss and loss adjustment expense reserve in property and casualty reinsurance

With regard to the accounting policies please see the explanatory remarks in the company's notes on page 163 as well as pages 211 to 215 for further breakdowns of the loss and loss adjustment expense reserve. Risk information is provided in the Group's combined management report on pages 88 to 91.

The risk for the consolidated financial statement

The gross loss and loss adjustment expense reserve amounts to EUR 28,378.5 million (roughly 46.4% of the balance sheet total). A major part of the loss and loss adjustment expense reserve is attributable to property and casualty reinsurance.

The loss and loss adjustment expense reserve in property and casualty reinsurance is arrived at from the information provided by the prior insurers and by following actuarial procedures using statistical methods that necessitate a sufficiently long data history and stability of the observed data. This includes assumptions regarding premiums, ultimate loss ratios, run-off periods, factors and speed that are built upon past experience. Taking into account the results of the actuarial procedures and further information in relation to the uncertainties associated with the calculations, management finally determines the amount of the loss and loss adjustment expense reserve. Large losses are considered separately in the measurement of the reserve.

The measurement of the loss and loss adjustment expense reserve is subject to uncertainties and is highly discretionary. Particularly in the case of large losses such as those caused by hurricane events, it may take a sizeable period of time until all loss advices have been received from ceding companies. Insofar as sufficient loss advices have not yet been received, the reserves for these large losses are estimated on the basis of internal analyses of the market loss and the impact on the company itself based on the existing covers.

Our approach in the audit

In auditing the loss and loss adjustment expense reserve in property and casualty reinsurance, we used our own actuaries as part of the audit team and performed the following major audit procedures:

- We surveyed the process for calculating the reserves, identified material controls and tested them for adequacy and effectiveness. The controls encompass both the completeness and correctness of the data used and the qualitative and quantitative elements of the valuation.
- We assessed the plausibility of the material assumptions used – including loss ratios. We devoted particularly close attention to the calculation of the IBNR reserve.
- With regard to the losses from the hurricane events "Harvey", "Irma" and "Maria", we assessed the assumptions in relation to the loss amount based on interviews and inspection of documentation.
- We performed independent reserve calculations for significant segments that we selected on the basis of risk considerations. In this regard, we established a point estimate (best estimate) as well as an appropriate range in each case using actuarial methods and compared them with the company's calculations.

Our conclusions

The methods used and the underlying assumptions for the measurement of the loss and loss adjustment expense reserve in property and casualty reinsurance are appropriate.

Measurement of the benefit reserve

With regard to the accounting policies please see the explanatory remarks in the notes on page 163 as well as page 215 for further breakdowns of the benefit reserve. Risk information is provided in the company's combined management report on pages 92 and 93.

The risk for the consolidated financial statement

The company reports a benefit reserve of EUR 8,978.0 million (roughly 14.7% of the balance sheet total) in its annual financial statement.

The measurement of the benefit reserve is derived in accordance with actuarial methods from the present value of future benefits payable to ceding companies less the present value of future premiums still to be paid by ceding companies. Hannover Rück SE carries over the values from the statements of account of ceding companies or performs its own measurement. In cases where Hannover Rück SE arrives at the assessment that the reported technical provisions are not adequate, additional reserves are constituted on the basis of its own assumptions.

An annual liability adequacy test is performed on the level of portfolios managed as a unit in order to verify whether the benefit reserve is sufficient and whether the capitalised acquisition costs are impaired. The test is based on the expected future gross margins, calculated according to current realistic actuarial bases, and is therefore dependent on the same assumptions as the benefit reserve. If a shortfall is determined in the context of the impairment test, the first step is to write down the capitalised acquisition costs. If there is still a deficit above and beyond this, the benefit reserve is to be increased accordingly.

Uncertainties exist primarily with regard to the estimation of the measurement parameters, particularly in relation to the biometric actuarial bases that are to be considered realistic – such as probabilities for mortality, the mortality trend or disability as well as socioeconomic factors such as the assumed behaviour of policyholders, e. g. cancellation.

Our approach in the audit

In our audit of the benefit reserve we deployed our own actuaries as part of the audit team. In particular, we performed the following principal audit procedures:

- We surveyed the process used to calculate the benefit reserve, identified significant controls that are performed and tested them with an eye to their design and effectiveness. We devoted particularly close attention to controls that ensure that new products are correctly classified and changes in assumptions are correctly implemented in the systems.
- We assessed the adequacy of the material assumptions by analysing the actuarial methods used to arrive at them.
- We analysed the development of the benefit reserve compared to the previous year, especially with an eye to whether the assumptions reflect the current business development as well as our expectations based on market observations.
- We evaluated the liability adequacy test as to whether the actuarial bases and methods used were applied in conformity with IFRS and appropriately. If market interest rates were used for measurement purposes, we reviewed the adequacy of the discount rates used through comparison with parameters that could be observed on the market. In this context, we devoted particularly close attention to the adequacy test for US mortality solutions business.

Our conclusions

The measurement assumptions used in the measurement of the benefit reserve are adequate and balanced overall. The explanatory remarks and disclosures provided in the notes to the consolidated financial statement are appropriate.

Calculation of the estimated gross premium

With regard to the accounting policies please see the explanatory remarks in the notes on pages 166 to 167 as well as page 226 for further breakdowns of the item.

The risk for the consolidated financial statement

The company reports gross written premium of EUR 17,790.5 million in its consolidated financial statement.

Premiums for reinsurance assumed are recognised according to the terms and conditions of the reinsurance treaties. Where statements of account from ceding companies are missing, the company has made supplementary or complete estimates of the premiums. The estimation is based on assumptions and is subject to considerable uncertainty and therefore highly discretionary.

Our approach in the audit

We conducted the following principal audit procedures, in particular:

- We surveyed the process for calculating premiums. In this context, we devoted particularly close attention to the subprocess "calculation of estimated premiums", identified the material controls performed and tested them with an eye to their design and effectiveness.
- We assessed the adequacy of the material assumptions by analysing the methods used to derive them; this was done especially with an eye to whether the assumptions reflect the current business development.
- We compared the premiums expected by the company in the previous year with the actual figures and thus drew conclusions about the quality of estimation.

Our conclusions

The methods used and the underlying assumptions for estimating the premiums are adequate and on the whole balanced.

Other information

The legal representatives are responsible for the other information. The other information encompasses:

- the non-financial information statement,
- the declaration on corporate governance, and
- the disclosures identified as unaudited that are contained in the combined management report and
- the other parts of the Annual Report, with the exception of the audited consolidated financial statement and Group management report as well as our audit report.

Our audit opinions on the consolidated financial statement and on the Group management report do not extend to the other information, and hence we do not express an audit opinion or draw any other form of audit conclusion in this regard.

In connection with our audit our responsibility is to read the other information and assess whether the other information

- shows material inconsistencies with the consolidated financial statement, the Group management report or knowledge that we obtained as part of the audit or
- appears to be materially misstated in other respects.

Responsibility of the legal representatives and of the Supervisory Board for the consolidated financial statement and the combined management report

The legal representatives are responsible for preparation of the consolidated financial statement, which in all material respects is in conformity with IFRS, as applicable in the EU, and the supplementary applicable German legal requirements in accordance with § 315e Para. 1 Commercial Code (HGB), and for ensuring that the consolidated financial statement gives a true and fair view – in compliance with these provisions – of the Group's net assets, financial position and results of operations. In addition, the legal representatives are responsible for the internal controls that they have determined to be necessary in order to facilitate preparation of a consolidated financial statement that is free of material misstatements, whether intended or unintended.

In preparing the consolidated financial statement, the legal representatives are responsible for assessing the capacity of the Group to continue business operations. Furthermore, they are responsible for declaring facts and circumstances connected with the continuation of business operations, where relevant. In addition, they are responsible for financial reporting on the basis of the accounting principle of continuation of business operations, unless there is an intention to liquidate the Group or cease business operations or there is no other realistic alternative.

Moreover, the legal representatives are responsible for the preparation of the combined management report, which overall gives an accurate view of the position of the Group and in all material respects is consistent with the consolidated financial statement, complies with German legal requirements and suitably reflects the opportunities and risks of future development. The legal representatives are also responsible for the safeguards and measures (systems) that they considered necessary in order to facilitate the preparation of a Group management report in conformity with applicable German legal requirements and in order to be able to provide sufficient appropriate evidence for the statements contained in the Group management report.

The Supervisory Board is responsible for monitoring the financial reporting process used by the Group for drawing up the consolidated financial statement and the combined management report.

Responsibility of the auditor for the auditing of the consolidated financial statement and the combined management report

Our objective is to obtain reasonable assurance as to whether the consolidated financial statement as a whole is free of material – intended or unintended – misstatements and whether overall the combined management report gives an accurate view of the Group's position and in all material respects is consistent with the consolidated financial statement as well as with the insights gained from the audit, is in conformity with German legal requirements and suitably presents the opportunities and risks of future development; it is also our goal to provide an audit report that contains our audit opinions on the consolidated financial statement and on the combined management report.

Reasonable assurance is a high degree of assurance, but not a guarantee, that an audit performed in conformity with § 317 Commercial Code (HGB) and the EU Audit Regulation and with due regard to German generally accepted standards for the auditing of financial statements promulgated by the Institute of Public Auditors in Germany (IDW) always detects a material misstatement. Misstatements may be due to fraud or error and are considered to be material if it could reasonably be expected that individually or as whole they influence the economic decisions made by users on the basis of this consolidated financial statement and Group management report.

During the audit we exercise our due discretion and maintain a fundamentally critical attitude. In addition,

- we identify and assess the risks of material – intended or unintended – misstatements in the consolidated financial statement and in the combined management report, plan and conduct audit procedures in response to these risks and obtain audit evidence that is sufficient and appropriate to serve as a basis for our audit opinions. The risk of material misstatements not being detected is greater with fraud than with error, because fraud may involve fraudulent collaboration, falsifications, wilful incompleteness, misleading representations or the bypassing of internal controls.
- we obtain an understanding of the internal control system relevant to the audit of the consolidated financial statement and the safeguards and measures relevant to the audit of the combined management report in order to plan audit procedures that are appropriate under the existing circumstances, albeit not with the aim of providing an audit opinion on the effectiveness of these systems.
- we assess the adequacy of the accounting policies applied by the legal representatives as well as the reasonableness of the estimated values presented by the legal representatives and associated disclosures.
- we draw conclusions regarding the adequacy of the accounting principle of continuation of business operations applied by the legal representatives as well as, on the basis of the audit evidence obtained, regarding whether material uncertainty exists in connection with events or circumstances that can raise significant doubts about the capacity of the Group to continue business operations. If we conclude that material uncertainty exists, we are required in the audit report to draw attention to the associated disclosures in the consolidated financial statement and in the combined management report or, if these disclosures are inadequate, to modify our audit opinion. We arrive at our conclusions on the basis of the audit evidence obtained until the date of our audit report. Future events or circumstances may, however, result in the Group no longer being able to continue its business operations.
- we assess the overall presentation, the structure and the content of the consolidated financial statement including the disclosures as well as whether the consolidated financial statement presents the underlying business transactions and events in such a way that the consolidated financial statement in compliance with IFRS, as applicable in the EU, and with the additional requirements of German law applicable pursuant to § 315e Para. 1 Commercial Code (HGB) gives a true and fair view of the net assets, financial position and results of operations of the Group.
- we obtain sufficient suitable audit evidence for the accounting information of the companies or business activities within the Group in order to be able to provide audit opinions on the consolidated financial statement and on the combined management report. We are responsible for the direction, monitoring and conduct of the audit of the consolidated financial statement. We bear sole responsibility for our audit opinions.

- we assess the consistency of the combined management report with the consolidated financial statement, its conformity with the law and the view of the position of the Group that it conveys.
- we conduct audit procedures with respect to the forward-looking statements presented by the legal representatives in the combined management report. In particular, based on sufficient suitable audit evidence we verify the major assumptions taken as a basis by the legal representatives for the forward-looking statements and assess the proper derivation of the forward-looking statements from these assumptions. We do not provide an independent audit opinion on the forward-looking statements or on the underlying assumptions. There is a considerable unavoidable risk that future events may differ substantially from the forward-looking statements.

We discuss with those charged with governance, among other things, the planned scope and the timetable of the audit as well as significant audit findings, including any deficiencies in the internal control system that we identify during our audit.

We provide to those charged with governance a declaration to the effect that we complied with the relevant independence requirements, and we discuss with them all relationships and other matters that can reasonably be assumed to affect our independence as well as the safeguards implemented in this respect.

We determine from among the matters that we discussed with those charged with governance those matters that were most relevant to the current reporting period in the audit of the consolidated financial statement and therefore constitute the particularly important audit matters. We describe these matters in the audit report, unless laws or other legal provisions prevent public disclosure of the matter.

Miscellaneous statutory and other legal requirements

Other information pursuant to Article 10 EU Audit Regulation

We were selected as the auditor of the consolidated financial statement by the Supervisory Board on 8 March 2017. We received the audit mandate from the Chairman of the Supervisory Board on 12 May 2017. We have served as the auditor of the consolidated financial statement of Hannover Rück SE without interruption for more than 25 years.

We declare that the audit opinions contained in this audit report are consistent with the additional report to the Audit Committee in accordance with Article 11 EU Audit Regulation ("Additional report to the audit committee").

Lead engagement partner

The lead engagement partner for the audit is Mr. Florian Möller.

Hannover, 7 March 2018

KPMG AG
Wirtschaftsprüfungsgesellschaft

Möller	Bock
Wirtschaftsprüfer	Wirtschaftsprüfer

Responsibility statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Group management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Hannover, 7 March 2018

Executive Board

Wallin Althoff Chèvre Gräber

Dr. Miller Dr. Pickel Vogel