somewhat different

17

Annual Report

hannover re®

Key figures

Figures in EUR million	2017	+/– previous year	2016 [1]	2015	2014	2013
Results						
Gross written premium	17,790.5	+8.8%	16,353.6	17,068.7	14,361.8	13,963.4
Net premium earned	15,631.7	+8.5%	14,410.3	14,593.0	12,423.1	12,226.7
Net underwriting result	(488.5)		115.9	93.8	(23.6)	(83.0)
Net investment income	1,773.9	+14.4%	1,550.4	1,665.1	1,471.8	1,411.8
Operating profit (EBIT)	1,364.4	-19.2%	1,689.3	1,755.2	1,466.4	1,229.1
Group net income	958.6	-18.2%	1,171.2	1,150.7	985.6	895.5
Balance sheet						
Policyholders´ surplus	10,778.5	-4.0%	11,231.4	10,267.3	10,239.5	8,767.9
Equity attributable to shareholders of Hannover Rück SE	8,528.5	-5.2%	8,997.2	8,068.3	7,550.8	5,888.4
Non-controlling interests	758.1	+2.0%	743.3	709.1	702.2	641.6
Hybrid capital	1,492.0	+0.1%	1,490.8	1,489.9	1,986.5	2,237.8
Investments (excl. funds withheld by ceding companies)	40,057.5	-4.2%	41,793.5	39,346.9	36,228.0	31,875.2
Total assets	61,196.8	-3.8%	63,594.5	63,214.9	60,457.6	53,915.5
Share						
Earnings per share (basic and diluted) in EUR	7.95	-18.2%	9.71	9.54	8.17	7.43
Book value per share in EUR	70.72	-5.2%	74.61	66.90	62.61	48.83
Dividend	603.0	–	603.0	572.8	512.5	361.8
Dividend per share in EUR	3.50 + 1.50 [2,3]	–	3.50 + 1.50 [3]	3.25 + 1.50 [3]	3.00 + 1.25 [3]	3.00
Share price at year-end in EUR	104.90	+2.0%	102.80	105.65	74.97	62.38
Market capitalisation at year-end	12,650.6	+2.0%	12,397.4	12,741.1	9,041.2	7,522.8
Ratios						
Combined ratio (property and casualty reinsurance) [4]	99.8%		93.7%	94.4%	94.7%	94.9%
Large losses as percentage of net premium earned (property and casualty reinsurance) [5]	12.3%		7.8%	7.1%	6.1%	8.4%
Retention	90.5%		89.3%	87.0%	87.6%	89.0%
Return on investment (excl. funds withheld by ceding companies) [6]	3.8%		3.0%	3.5%	3.3%	3.4%
EBIT margin [7]	8.7%		11.7%	12.0%	11.8%	10.1%
Return on equity (after tax)	10.9%		13.7%	14.7%	14.7%	15.0%

1 Restated pursuant to IAS 8 (cf. section 3.1 of the notes)
2 Proposed dividend
3 Dividend of EUR 3.50 plus special dividend of EUR 1.50 for 2017, dividend of EUR 3.50 plus special dividend of EUR 1.50 for 2016, dividend of EUR 3.25 plus special dividend of EUR 1.50 for 2015 and dividend of EUR 3.00 plus special dividend of EUR 1.25 for 2014
4 Including expenses on funds withheld and contract deposits
5 Hannover Re Group's net share for natural catastrophes and other major losses in excess of EUR 10 million gross as a percentage of net premium earned
6 Excluding effects from ModCo derivatives
7 Operating result (EBIT) / net premium earned

The Group worldwide

107

A complete list of our shareholdings is provided on page 170 et seq. of the notes. The addresses of the Hannover Re Group's branch offices and subsidiaries abroad are to be found in the section "Further information" on page 262 et seq.

Strategic business groups

108

Hannover Re Group

Property & Casualty reinsurance

Target Markets
- North America
- Continental Europe

Specialty Lines Worldwide
- Marine
- Aviation
- Credit, Surety and Political Risks
- United Kingdom, Ireland, London Market and Direct Business
- Facultative Reinsurance

Global Reinsurance
- Worldwide Treaty Reinsurance
- Catastrophe XL (Cat XL)
- Structured Reinsurance and Insurance-Linked Securities

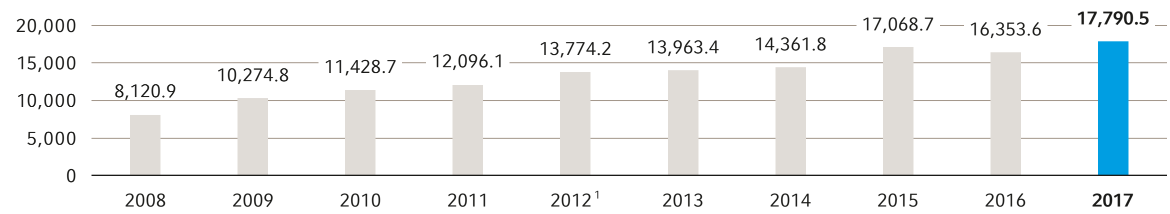
Life & Health reinsurance

Financial Solutions

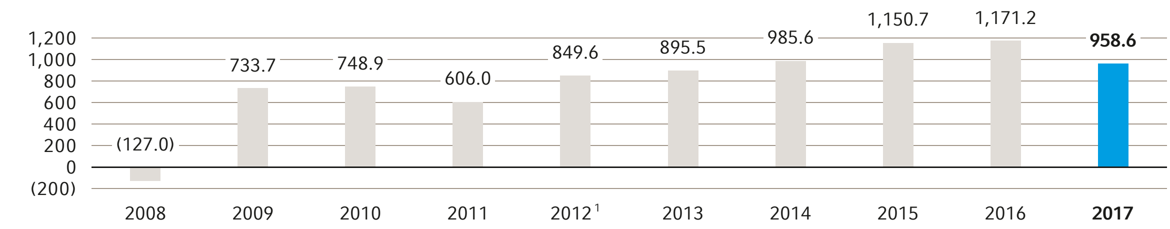
Risk Solutions
- Longevity
- Mortality
- Morbidity

An overview

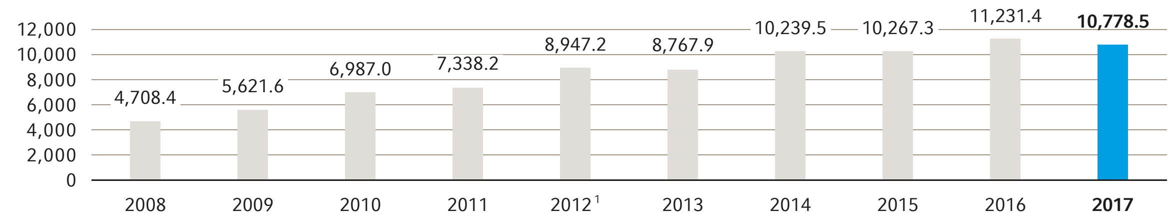
Gross premium I01
in EUR million



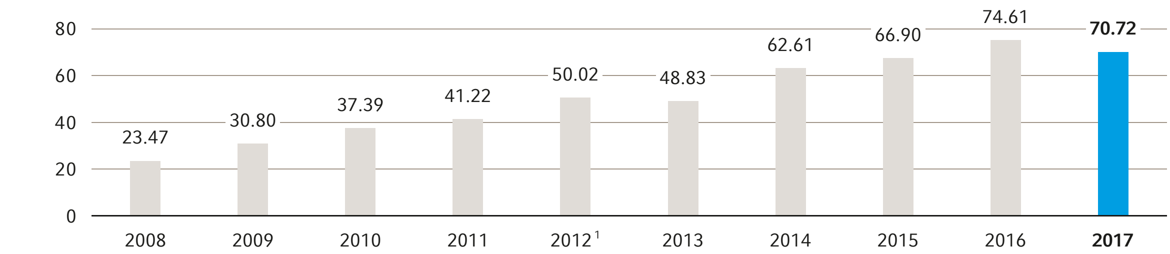
Group net income (loss) I02
in EUR million



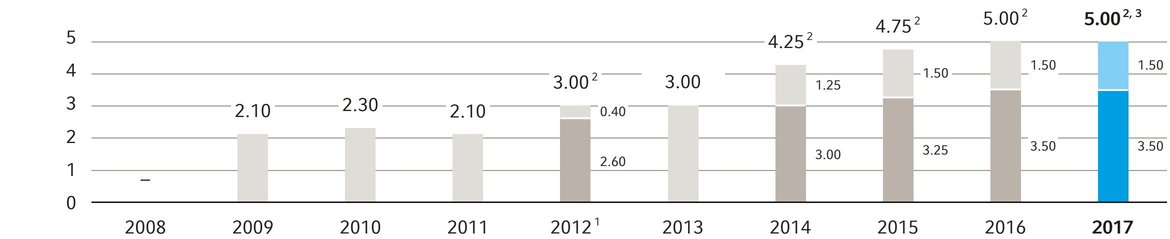
Policyholders' surplus I03
in EUR million



Book value per share I04
in EUR



Dividend I05
in EUR



1 Restated pursuant to IAS 8

2 Dividend of EUR 3.50 plus special dividend of EUR 1.50 for 2017, dividend of EUR 3.50 plus special dividend of EUR 1.50 for 2016, dividend of EUR 3.25 plus special dividend of EUR 1.50 for 2015, dividend of EUR 3.00 plus special dividend of EUR 1.25 for 2014 and dividend of EUR 2.60 plus special dividend of EUR 0.40 for 2012

3 Proposed dividend

About us

Hannover Re, with gross premium of more than EUR 17 billion, is the third-largest reinsurer in the world.

We transact all lines of property & casualty and life & health reinsurance and are present on all continents with roughly 3,300 staff. Established in 1966, the Hannover Re Group today has a network of more than 140 subsidiaries, branches and representative offices worldwide. The German business of the Hannover Re Group is transacted by our subsidiary E+S Rück.

The rating agencies most relevant to the insurance industry have awarded both Hannover Re and E+S Rück outstanding financial strength ratings: Standard & Poor's "AA-" (Very Strong) and A.M. Best "A+" (Superior).

Contents

Ulrich Wallin,
Chairman of the
Executive Board

Dear Shareholders,
Ladies and Gentlemen,

While the past five years had seen insured losses from natural catastrophe events below the modelled expectations, the picture in 2017 was markedly different: most notably, the hurricanes “Harvey”, “Irma” and “Maria” – along with a number of other natural disasters – caused insured losses well in excess of USD 100 billion. This is on a similar scale to the expenditures incurred in 2005 from hurricanes “Katrina”, “Rita” and “Wilma” and in 2011 from the earthquakes in Japan and New Zealand. It is therefore evident that, as a reinsurer, we must anticipate insured losses in an order of magnitude comparable with 2017 at relatively frequent intervals.

In 2017, as had been the case in 2005 and 2011, your company – in common with other industry players – was impacted by the aforementioned natural catastrophe losses to a considerable extent. Reinsuring our clients against just such events is at the very heart of our business model in property and casualty reinsurance. It is therefore crucially important that we accurately capture these exposures in our risk management system in order to avoid having to carry unexpectedly heavy losses that could impair the company’s financial strength. With this in mind, I am pleased to report that the losses incurred by your company from these natural disasters were very much in line with the expected values from our risk management system relative to our defined risk appetite.

Even in the challenging 2017 financial year, therefore, the generated result delivered a return on equity of 10.9 percent that comfortably beats our minimum target of 900 basis points above the risk-free interest rate. The Group net income of EUR 959 million thus constitutes a satisfactory result.

This was made possible, in the first place, because we avoided an underwriting deficit in property and casualty reinsurance despite the quite considerable large losses. Along with the good underlying claims experience, especially in our European and Asian business, we were further assisted here by the very conservatively calculated loss reserves that we have established over many years. This is true of large individual losses and applies equally to the reserves that we set aside for losses that have already been incurred but not yet reported (IBNR). The result consequently benefited from substantial releases of loss reserves, without this causing any significant change in the confidence level of our loss reserves as determined by internal and external analyses. Your company thus continues to enjoy very prudent and comfortably calculated loss reserves.

As a further factor, we generated exceptionally healthy investment income in 2017. Driven by good earnings from our real estate portfolio and from special investments, above all in private equity, we were able to boost ordinary investment income by almost 11 percent. Extraordinary investment income rose even more strongly following the sale of our listed equities in the third quarter, causing investment income from assets under own management to surge by 26 percent overall.

The performance of our life and health reinsurance portfolio, however, was less pleasing. Net income contracted by a good 31 percent to EUR 173 million. Despite an otherwise rather good business experience, this was due to losses from our US mortality portfolio, which came in significantly higher than we had anticipated. The primary reasons here were, firstly, that – contrary to the expectations at the time of pricing the business – the mortality improvement in the US population has for some time now failed to materialise to the anticipated extent. Furthermore, the exercise of the various options available to policyholders, particularly in relation to cancellation of their policies, had resulted in a more sharply negative portfolio mix than anticipated, especially in relation to older underwriting years. Although these changes should not produce negative results for our new business due to the applied pricing parameters, the situation is different with a large block of business that we assumed from Scottish Re at the beginning of 2009. In this case there can be no doubt that the reinsurance premiums are not sufficient to cover the anticipated future claims, especially for policyholders at an advanced age. Consequently, based on detailed analysis of the business, we are now making intensive efforts to exercise contractually agreed options in such a way as to raise the reinsurance rates for this legacy portfolio to an adequate level. The resulting additional premium income that is expected to be generated in the future has already been factored into the valuation of the business.

Your company's shareholders' equity contracted from EUR 9 billion to EUR 8.5 billion, a decrease attributable primarily to exchange rate movements and in particular the softening of the US dollar against the euro. The various parts of shareholders' equity are affected accordingly, especially those that we hold in US dollars. This is opposed, however, by USD exposures on at least the same scale, with the result that the risk-bearing capacity of your company has in no way deteriorated; quite the contrary, it actually improved slightly.

Driven by substantial growth in property and casualty reinsurance as well as a largely stable development in life and health reinsurance, premium income also fared well. Gross written premium climbed 9 percent to EUR 17.8 billion. Adjusted for exchange rate effects, growth would have been as strong as 11 percent. In view of your company's unchanged very good equity position, we envisage a stable distribution on the level of the previous year and will propose to the Annual General Meeting that a dividend of EUR 5 per share should be paid. This is composed of an ordinary dividend of EUR 3.50 and an unchanged special dividend of EUR 1.50 per share.

Turning to the prospects for the current 2018 financial year, we have a good platform in property and casualty reinsurance for once again achieving good results in 2018. In the latest treaty renewals we obtained thoroughly pleasing rate increases overall; the premium quality for 2018 is consequently better than was the case for 2017. The reason here is the market response to the considerable losses of 2017. While the available reinsurance capacity still clearly exceeded demand, reinsurers were successful in securing moderate rate increases. This brought about a trend reversal, after primary insurers had consistently been able to push through reduced rates for their reinsurance cessions since mid-2013. Based on our strong competitive position and our very good ratings, we made the most of the improved market climate and booked premium growth of more than 20 percent in the renewal season as at 1 January 2018. This was true of virtually all regions and lines, but derived again in special measure from the area of structured reinsurance, where demand for bespoke reinsurance solutions tailored to provide solvency relief showed further growth. In life and health reinsurance, too, we anticipate slightly higher premium income because we are continuing to write attractive new business. The total result in life and health reinsurance will again be heavily influenced by the performance of our US mortality portfolio. What is particularly essential here is that we can actually achieve the targeted rate increases in relation to the previously mentioned large block of business. What is more, in individual cases this may lead to strains due to recaptures of business by our ceding companies. Given that a large part of the portfolio has negative earnings expectations for the future, such recaptures are generally economically desirable for us.

As far as our investments are concerned, we anticipate largely stable ordinary income despite the low level of interest rates. The return on investment is expected to be in the order of 2.7 percent. If we also bear in mind the good outcome of the treaty renewals as at 1 January 2018 in property and casualty reinsurance, it is now our assumption that gross premium will grow by more than 5 percent at constant exchange rates. We expect to generate Group net income of more than EUR 1 billion. As always, our guidance is subject to the proviso that major loss expenditure remains within the budgeted EUR 825 million and assumes that there are no unforeseen distortions on the capital market.

I would like to take this opportunity to thank you, our valued shareholders, most sincerely for your trust – also on behalf of my colleagues on the Executive Board. I would also like to express my appreciation to our employees for their very good and responsible work. Going forward, as in the past, we shall do everything in our power to safeguard Hannover Re's successful development. It is and will remain our goal to increase the value of your company on a sustainable basis.

Yours sincerely,

Ulrich Wallin
Chairman of the Executive Board

Executive Board of Hannover Rück SE

Dr. Michael Pickel
Group Legal Services
Run-Off Solutions
Target Markets in Property & Casualty Reinsurance
- North America
- Continental Europe

Sven Althoff
Specialty Lines Worldwide
- Marine
- Aviation
- Credit, Surety and Political Risks
- United Kingdom, Ireland, London Market and Direct Business
- Facultative Reinsurance

Jürgen Gräber
Global Reinsurance
- Worldwide Treaty Reinsurance
- Catastrophe XL (Cat XL)
- Structured Reinsurance and Insurance-Linked Securities

Coordination of Property & Casualty Business Group
Quotations
Retrocessions

From left to right: Dr. Michael Pickel, Sven Althoff, Jürgen Gräber,
Ulrich Wallin, Roland Vogel, Dr. Klaus Miller, Claude Chèvre

Ulrich Wallin
Chairman
Innovation Management
Compliance
Controlling
Human Resources Management
Internal Auditing
Risk Management
Corporate Development
Corporate Communications

Roland Vogel
Finance and Accounting
Information Technology
Investment and Collateral Management
Facility Management

Dr. Klaus Miller
Life & Health Reinsurance
- United Kingdom/Ireland, North America, Northern, Eastern and Central Europe

Claude Chèvre
Life & Health Reinsurance
- Africa, Asia, Australia/New Zealand, Latin America, Western and Southern Europe
- Longevity Solutions

The Hannover Re share

- Share performance of 6.8% including reinvested dividends
- Proposed dividend of EUR 3.50 plus special dividend of EUR 1.50 per share on the level of the previous year

Stock markets defied political uncertainties

Stock markets in 2017 were again exposed to numerous potentially unsettling factors. In the wake of the surprising outcomes of the Brexit referendum and the US elections in 2016, many market players feared further uncertainty in the EU or the Eurozone in connection with national elections in France and the Netherlands. These concerns proved to be unfounded, however, and even real factors such as the overhaul of international trade agreements and the sluggish progress in forming a government in Germany had little impact on financial markets, which proved to be astonishingly robust and in the case of the Eurozone even surprisingly sprightly. An exception here was the comparatively muted performance of UK stock markets as negotiations dragged between the EU and the UK following the Brexit vote.

The German DAX index started the year at 11,481 points, which also proved to be its lowest level of the period under review. German blue chips enjoyed a broadly positive performance from the beginning of the year until the summer, albeit with certain modest setbacks. The continued expansionary monetary policy pursued by the European Central Bank (ECB), coupled with a good performance on the corporate side and a robust world economy, had positive implications for valuations on the capital markets. After taking a breather over the summer the DAX picked up significant momentum again, touching its high for the year of 13,479 on 3 November 2017. The German stock index closed out the year at 12,918 with a gain of 12.5%.

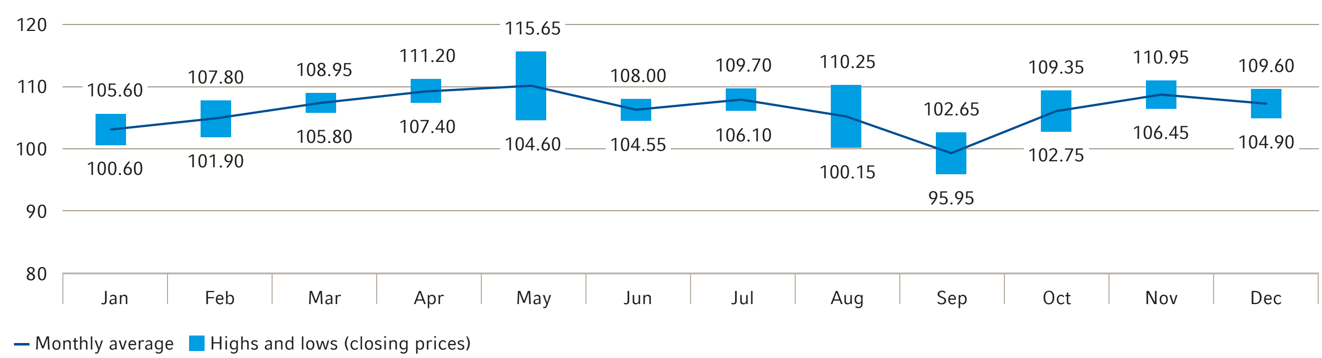
The MDAX fared even more favourably, kicking off the year at 22,189 points and climbing to an interim high of 26,696 on 2 June 2017. After moving sideways for a while over the summer months, the index surged higher again to reach its peak for the year of 27,027 shortly before year-end on 30 November. The MDAX ultimately closed out the year at 26,201 points with a gain of 18.1%. The performance of the Dow Jones in the United States was even more positive: spurred on by the "Trump effect" and the major tax reform package passed by the Senate at the end of the year, it soared to 24,719 and posted an annual gain of 25.1%.

Volatile performance of the Hannover Re share

The Hannover Re share stood at EUR 102.80 going into the year. Despite the continued intensely competitive climate in the reinsurance industry, the company was able to raise its guidance for the 2017 financial year at the beginning of February. This was prompted by a renewal season as at 1 January 2017 that surpassed expectations in terms of premium volume. Boosted by the unveiling of a fifth consecutive record profit for the year, the share price rose steadily during the spring and reached its highest point of the year – and at the same time a new all-time high – of EUR 115.65 one day before the Annual General Meeting on 9 May 2017. Following payment of the dividend the share went on to list at a correspondingly lower level and in the ensuing months until late summer it moved in a volatile sideways direction. In the third quarter the impacts of

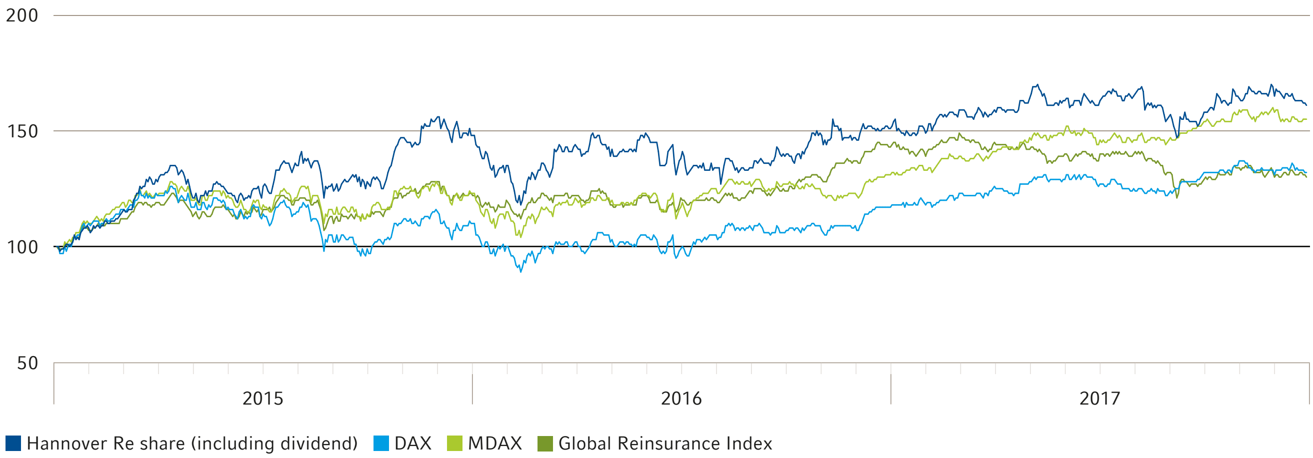
Highs and lows of the Hannover Re share
in EUR

109



Relative performance of the Hannover Re share I10

in %



three hurricanes within the space of just four weeks on the US coast and the Caribbean as well as two severe earthquakes in Mexico caused the share price to retreat sharply in the face of the expected losses. On 7 September 2017, following the announcement that Hurricane “Irma” would make landfall on the Florida coast, the share price fell to its lowest level of the year at EUR 95.95. It was indeed the case that the natural disasters in the third quarter led to a volume of losses in excess of the multi-year average. Against this backdrop, Hannover Re adjusted its profit guidance for the year under review on 21 September by publishing an ad hoc notification. At the same time, the losses prompted a turnaround in market sentiment after five years of large loss expenditures below the anticipated levels and rates were expected to move higher in the upcoming renewals. The share price consequently experienced a trend reversal. At the end of the financial year the Hannover Re share closed with a gain of 2.0% at EUR 104.90, delivering a performance of 6.8% including reinvested dividends. Looked at over the year as a whole, the Hannover Re share thus fared somewhat more poorly than its benchmark indices, namely the DAX (+12.5%) and MDAX (+18.1%); it nevertheless beat the Global Reinsurance (Performance) Index (-8.9%), although this was significantly impacted by the softening of the US dollar against the euro owing to its heavy USD weighting. The Global Reinsurance Index tracks the share performance including dividend payments of the world’s 15 largest reinsurers. Hannover Re measures its performance by this benchmark index.

In a three-year comparison the Hannover Re share delivered a performance (including reinvested dividends) of 61.0%. It therefore once again clearly outperformed the DAX (31.7%), MDAX (54.7%) and Global Reinsurance Index (30.5%) benchmarks.

Based on the year-end closing price of EUR 104.90, Hannover Re’s market capitalisation totalled EUR 12.7 billion at the end of the 2017 financial year, an increase of EUR 0.3 billion or roughly 2% compared to the previous year’s figure of EUR 12.4 billion. According to the rankings drawn up by Deutsche Börse AG, the company placed ninth in the MDAX at the end of December with a free float market capitalisation of EUR 6,450.6 million and nineteenth with a trading volume of EUR 3,850.2 million over the past twelve months.

With a book value per share of EUR 70.72 the Hannover Re share showed a price-to-book (P/B) ratio of 1.48 at the end of the year under review; compared to the average MDAX P/B ratio of 2.10 as at year-end, the share thus continues to be very moderately valued.

Proposed dividend on the level of the previous year

The Executive Board and Supervisory Board intend to propose to the Annual General Meeting on 7 May 2018 that a dividend of EUR 3.50 plus a special dividend of EUR 1.50 per share should be distributed. In keeping with the previous year, the special dividend will be paid as a capital management measure because the company’s capitalisation continues to be in excess of the required capital. Based on the year-end closing price of EUR 104.90, this produces a dividend yield of 4.8%.

Annual General Meeting looked back on a fifth consecutive record profit

The Annual General Meeting of Hannover Rück SE was held on 10 May 2017 at Hannover Congress Centrum (HCC). Altogether, including postal ballots around 77% of the share capital was represented.

In his address to shareholders Chief Executive Officer Ulrich Wallin took the opportunity to look back once more on the 2016 financial year, which Hannover Re had closed out with Group net income of EUR 1.17 billion and hence a fifth record profit in a row. The Property & Casualty reinsurance business group had played the largest part in this successful development with a very healthy underwriting profit. While Life & Health reinsurance delivered a solid result in line with expectations, investment income surpassed expectations.

In light of this good result and the further strengthening of the company's capitalisation, the shareholders accepted the proposal of the Executive Board and Supervisory Board that a gross dividend of EUR 5.00 per share should be paid. The payout took the form of a dividend of EUR 3.50 per share – an increase of EUR 0.25 compared to the previous year – and a special dividend of EUR 1.50 per share, with the special dividend to be considered a capital management measure. This proposal, together with all other proposed resolutions put to the vote, was approved by the Annual General Meeting by a large majority.

All voting results and the attendance were published on the company's website following the Annual General Meeting. The next Annual General Meeting will be held on Monday, 7 May 2018 in Hannover.

Dialogue with the capital market

We continued to cultivate the dialogue with institutional investors in the financial year just ended in the context of roadshows and capital market conferences. Altogether, members of the Executive Board and representatives of the Investor Relations department attended 17 international capital market conferences (previous year: 14) and 19 roadshows (19). The focus of our efforts was on the financial centres of Europe and North America.

Complementing these activities, we held Hannover Re's 20th Investors' Day on 19 October 2017 in Frankfurt. Discussions centred on the outcome of the updated Group strategy for the years 2018 to 2020, which has been framed under the motto "Creating value through reinsurance". Another issue addressed at the event was the impact of the recent natural catastrophes in the autumn of 2017. After five years of rather low expenditures these had led to insured losses on a par with the costly years of 2005 and 2011 and hence significantly in excess of the multi-year average. In addition, the Executive Board took the opportunity to provide more in-depth insights into the high-growth segment of structured reinsurance and described the cash flows expected from new business in life and health reinsurance over the coming years. Discussions relating to the risk profile and the capitalisation under Solvency II also featured on the agenda, as did the implications of the protracted low interest rate environment for strategic capital management. In common with many of our other IR events, the Investors' Day is broadcast live on our website.

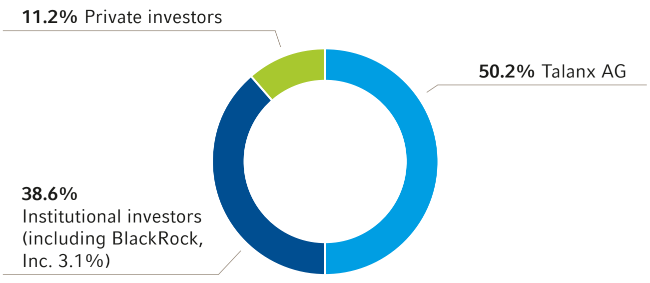
Sustainability reporting and ratings

In the year just ended Hannover Re again provided information about its achievements as a responsible enterprise in the form of a stand-alone sustainability report drawn up in accordance with the current internationally recognised reporting standards of the Global Reporting Initiative (GRI). Based on its sixth Sustainability Report, the company's sustainability performance was assessed by multiple rating agencies. In addition to RobecoSAM, MSCI, Sustainalytics and Vigeo, Hannover Re's achievements in the field of sustainability were once again evaluated by the rating agency Oekom Research. The company's above-average fulfilment of industry-specific requirements was confirmed by Oekom Research with the award of "Prime" status. Furthermore, in the context of the Carbon Disclosure Project (CDP) Hannover Re was evaluated by the non-governmental organisation of the same name in the financial year just ended and received a "B" rating, corresponding to the second-best level. Not only that, the Hannover Re share continued to be listed in the worldwide, sustainability-focused FTSE4Good Index Series and was included for the first time in the Global Challenges Index (GCX) administered by the Hannover and Hamburg stock exchanges.

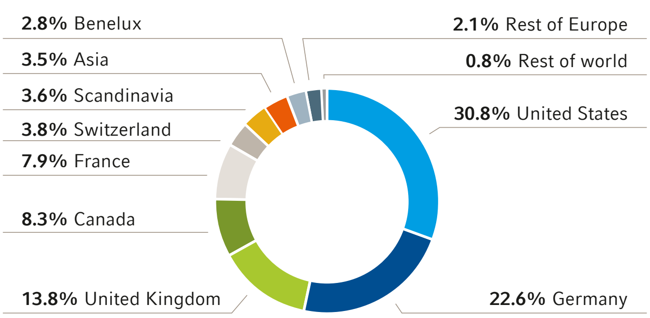
Shareholder structure

Our share register showed some 48,000 shareholders at the end of the year, another increase in the number of shareholders year-on-year (41,000). The largest shareholders as at year-end were Talanx AG with 50.2% and the asset manager BlackRock, Inc. with a reported 3.05% of the voting rights. Of the remaining shares outstanding, by far the bulk – at 35.5% – were held by other institutional investors such as banks, insurers and investment companies (previous year in total: 38.5%); private investors held 11.2% (8.2%). Our shareholders include investors who pay particularly close attention to sustainability criteria.

Shareholding structure as at 31 December 2017 | 11



Geographical breakdown of the shares held by institutional investors | 12



Analyst ratings

In total, around 320 analyst studies were published on Hannover Re and the insurance sector in the 2017 financial year. By the end of the year 32 analysts had handed down opinions on Hannover Re: nine analysts (ten) recommended the Hannover Re share as "buy" or "overweight". Altogether 18 opinions (17) were a "hold", making this the most common. "Underweight" or "sell" recommendations were issued a total of five (seven) times. The analysts' average price target continued to move higher in the year under review, increasing from EUR 101.34 at the start of the financial year to EUR 110.49 at year-end. This development is particularly pleasing in view of what is still a relatively superior valuation measured against peer companies.

Basic information I13

Securities identification number	840 221
International Securities Identification Number (ISIN)	DE 000 840 221 5
Ticker symbols	
Bloomberg	HNR1
Thomson Reuters	HNRGn
ADR	HVRRY
Exchange listings	
Germany	Xetra, Frankfurt, Munich, Stuttgart, Hamburg, Berlin, Düsseldorf, Hannover (official trading: Xetra, Frankfurt and Hannover)
United States	American Depositary Receipts (Level 1 ADR program; 2 ADR = 1 share)
Market segment	Prime Standard
Index inclusion	MDAX
First listed	30 November 1994
Number of issued shares (as at 31 December 2017)	120,597,134
Common shares (as at 31 December 2017)	EUR 120,597,134.00
Share class	No-par-value registered shares

Key figures I14

in EUR	2017	2016	2015	2014	2013
Number of shares in million	120.6	120.6	120.6	120.6	120.6
Annual low [1]	95.95	84.12	73.81	58.88	52.42
Annual high [1]	115.65	106.20	111.50	75.92	64.34
Year-opening price [1]	102.80	105.65	74.97	62.38	58.96
Year-ending price [1]	104.90	102.80	105.65	74.97	62.38
Market capitalisation at year-end in EUR million	12,650.6	12,397.4	12,741.1	9,041.2	7,522.8
Equity attributable to shareholders of Hannover Rück SE in EUR million	8,528.5	8,997.2	8,068.3	7,550.8	5,888.4
Book value per share	70.72	74.61	66.90	62.61	48.83
Earnings per share (basic and diluted)	7.95	9.71	9.54	8.17	7.43
Dividend per share	3.50 + 1.50 [2,3]	3.50 + 1.50 [3]	3.25 + 1.50 [3]	3.00 + 1.25 [3]	3.00
Cash flow per share	14.05	19.33	25.75	16.01	18.45
Return on equity (after tax) [4]	10.9%	13.7%	14.7%	14.7%	15.0%
Dividend yield [5]	4.8%	4.9%	4.5%	5.7%	4.8%
Price-to-book (P/B) ratio [6]	1.5	1.4	1.6	1.2	1.3
Price/earnings (P/E) ratio [7]	13.2	10.6	11.1	9.2	8.4
Price-to-cash flow (P/CF) ratio [8]	7.5	5.3	4.1	4.7	3.4

1 Xetra daily closing prices from Bloomberg
2 Proposed dividend
3 Dividend of EUR 3.50 plus special dividend of EUR 1.50 for 2017, dividend of EUR 3.50 plus special dividend of EUR 1.50 for 2016, dividend of EUR 3.25 plus special dividend of EUR 1.50 for 2015 and dividend of EUR 3.00 plus special dividend of EUR 1.25 for 2014
4 Earnings per share/average of book value per share at start and end of year
5 Dividend per share/year-end closing price
6 Year-end closing price/book value per share
7 Year-end closing price/earnings per share
8 Year-end closing price/cash flow (from operating activities) per share

Combined management report

Foundations of the Group

Business model

- Worldwide reinsurance, transacting all lines of property & casualty and life & health reinsurance with the goal of achieving the broadest and most balanced possible regional and line-based diversification
- Competitive advantages due to our low cost of capital and administrative expense ratio
- Financial strength secured through sophisticated risk management

With a gross premium volume of more than EUR 17 billion, the Hannover Re Group is the third-largest reinsurer in the world. Hannover Rück SE is a European Company, Societas Europaea (SE), based in Hannover, Germany. We transact reinsurance in our Property & Casualty and Life & Health business groups.

The strategy pursued in both property & casualty and life & health reinsurance supports our Group's paramount mission, namely: "Long-term success in a competitive business". Our entire business operations are geared to our goal of being the best option for our business partners when they come to choose their reinsurance provider. It is for this reason that our clients and their concerns form the focus of our activities.

We generate competitive advantages to the benefit of our clients and shareholders by conducting our reinsurance business with lower administrative expenses than our rivals. In this way we deliver above-average profitability while at the same time being able to offer our customers reinsurance protection on competitive terms.

We also strive for the broadest possible diversification and hence an efficient risk balance. This is achieved by accepting reinsurance risks with mostly little or no correlation in our Property & Casualty and Life & Health business groups across all lines of business as well as by maintaining a global presence. In conjunction with our capital management, this is the key to our comparatively low cost of capital.

Guided by a clearly defined risk appetite, our risk management steers the company so as to be able to act on business opportunities while securing our financial strength on a lasting basis.

We transact primary insurance in selected market niches as a complement to our core reinsurance activities. In this context, we always work together with partners from the primary insurance sector.

Our subsidiary E+S Rückversicherung AG (E+S Rück), as the "dedicated reinsurer for the German market", offers a range of products and services tailored to the specific features of the German market. Of special importance here are the mutual insurers with whom we maintain a strategic partnership that is underscored through their participation in E+S Rück.

In the Property & Casualty reinsurance business group we consider ourselves to be a reliable, flexible and innovative market player that ranks among the best in any given market. Cost leadership, effective cycle management and superlative risk management are the key elements of our competitive positioning.

In the Life & Health reinsurance business group we are recognised – as customer surveys confirm – as one of the top players and the leading provider of innovative solutions. We achieve this standing by opening up new markets for our company and by identifying trends in order to anticipate the future needs of our customers.

Management system

Value-based management

Our integrated system of enterprise management constitutes the basis for attainment of our strategic objectives. Located at its core are, first and foremost, our profit and growth targets, which are summarised for the Group and its business groups in the so-called target matrix. In addition to traditional performance indicators geared to the IFRS balance sheet, our system of strategic targets also includes economic targets derived from our internal capital model approved by the regulator. The targets are regularly analysed and adjusted in the context of the strategy review conducted at periodic intervals. Our primary focus is on long-term attainment of the strategic targets.

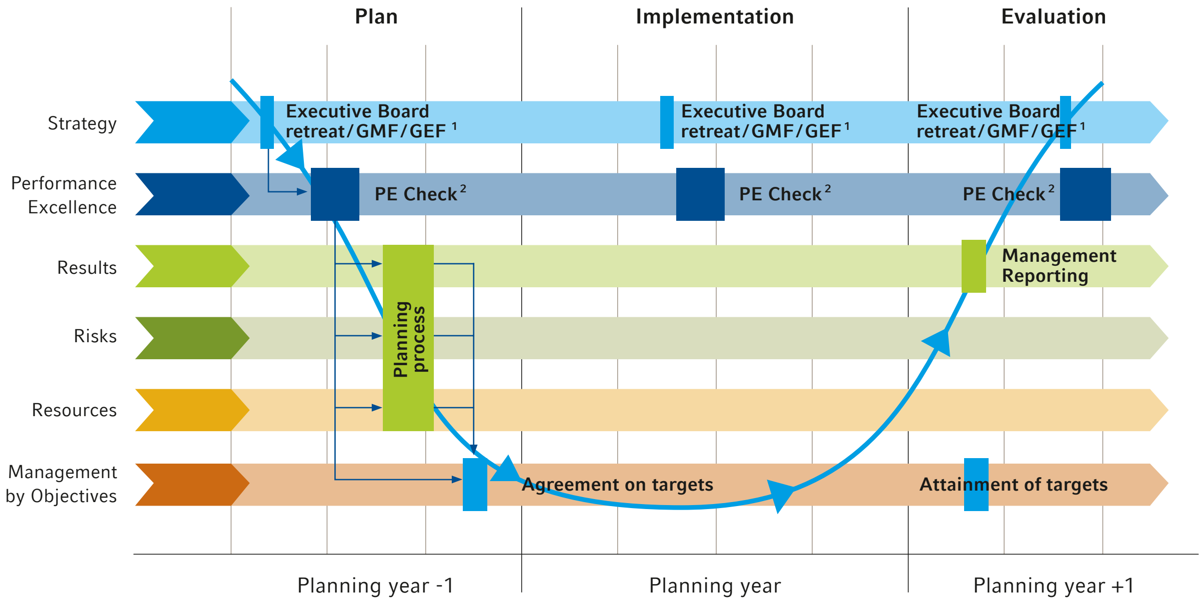
Target attainment M 01

Business group	Key data	Targets for 2017	Target attainment			
			2017	2016	2015	Ø 2015–2017[1]
Group	Investment return[2]	≥ 2.7%	3.8%	3.0%	3.5%	3.4%
	Return on equity[3]	≥ 9.8%	10.9%	13.7%	14.7%	13.1%
	Growth in earnings per share (year-on-year comparison)	≥ 6.5%	-18.2%	1.8%	16.7%	-0.9%
	Value creation per share[4]	≥ 7.5%	1.5%	18.6%	13.6%	10.6%
Property & Casualty reinsurance	Gross premium growth	3–5%[5]	18.7%	-0.2%	8.1%	8.6%
	Combined ratio	≤ 96%[6]	99.8%	93.7%	94.4%	96.2%
	EBIT margin[7]	≥ 10%	12.2%	16.8%	16.6%	15.1%
	xRoCA[8]	≥ 2%	1.1%	7.1%	7.4%	5.4%
Life & Health reinsurance	Gross premium growth	5–7%[9]	1.4%	-4.3%	9.5%	2.1%
	Value of New Business (VNB)[10]	≥ EUR 220 million	EUR 364 million	EUR 893 million	EUR 543 million	–
	EBIT margin[7] Financial Solutions/ Longevity	≥ 2%	13.2%	9.4%	11.0%	11.1%
	EBIT margin[7] Mortality/Morbidity	≥ 6%	0.0%	3.4%	3.6%	2.3%
	xRoCA[8]	≥ 3%	-8.5%	2.8%	8.9%	0.5%

1 Annual average growth, otherwise weighted averages
2 Excluding effects from ModCo derivatives
3 After tax; target value: 900 basis points above the five-year average return on ten-year German government bonds
4 Growth in book value per share including dividend paid
5 Average over the reinsurance cycle; at constant exchange rates
6 Including large loss budget of EUR 825 million
7 EBIT/net premium earned
8 Excess return on allocated economic capital
9 Organic growth only; target: annual average growth over a five-year period; at constant exchange rates
10 Since 2016 based on Solvency II principles and pre-tax reporting; in 2015 based on MCEV principles with cost of capital of 6% and post-tax reporting

In Performance Excellence (PE) we have at our disposal a consistent method Group-wide that enables us to steer the development of the company as well as to measure and hence also evaluate the extent to which we have achieved our strategic objectives. The decentralised approach used by PE is of special importance in this context: every single organisational unit defines and continuously examines its contributions to execution of the Hannover Re Group strategy and develops improvement initiatives.

System of value-based management:
Performance Excellence (PE) combines the strategic and operational levels **M 02**



[1] The Global Management Forum (GMF) and the Global Executive Forum (GEF) bring together senior managers of the Hannover Re Group from around the world for the purpose of defining strategic orientations. The parameters developed here serve as the basis for the subsequent planning process.
[2] Verification and elaboration of contributions to the Group strategy

Management by Objectives

The key indicators from the target matrix are integrated into the individual agreements on objectives with managers. When it comes to the definition of objectives, the participants take into account not only standardised financial indicators but also non-financial variables derived from the strategic parameters.

Management Reporting

The annual Management Reporting presents in detail the respective degree of target attainment for each individual treaty/regional department and service unit as well as for the two business groups of Property & Casualty and Life & Health reinsurance and for the Group as a whole. On this basis appropriate performance controlling is carried out, potential scope for improvement and refinement is identified and performance-oriented remuneration components defined in the context of Management by Objectives are established.

Capital allocation

The basis of value-based management is the risk-appropriate allocation of capital to the individual business activities. This enables us to evaluate the acceptance of underwriting risks and investment risks both in light of individual risk/return aspects and against the backdrop of our overall risk appetite. Our internal capital model supplies the key parameters for this purpose. Starting out from the Group's overall risk situation, capital is first allocated to the functional areas of underwriting and investments. We then further divide the capital within the underwriting sector, first between the business segments of property & casualty reinsurance and life & health reinsurance and then between the various reinsurance products according to risk categories/treaty types and lines. In this way, we ensure consistent adherence to our profit targets – allowing for risk, cost and return considerations – in the evaluation and pricing of our various reinsurance products.

IVC – the strategic management ratio

In order to manage the portfolios and individual treaties we apply underwriting-year-oriented measurement principles based on expected cash flows that appropriately accommodate the specific characteristics of property & casualty and life & health reinsurance. The attainment of targets in a particular financial year is also of interest – especially from the standpoint of shareholders. Based on our internal capital model, the foundation of our enterprise management, we strive to generate a profit in excess of the cost of capital. This return – which is the decisive ratio for the management of our business activities – is referred to as Intrinsic Value Creation (IVC).

With the aid of the IVC ratio it is possible to compare the value contributions of the Group as a whole, its two business groups and the individual operational units. This enables us to reliably identify value creators and value destroyers.

In this way, we can

- optimise the allocation of capital and resources,
- identify opportunities and risks and
- measure strategy contributions with an eye to our demanding profit and growth targets.

The IVC (Intrinsic Value Creation) is calculated according to the following formula:
Adjusted economic profit – (capital allocated × weighted cost of capital) = IVC

The adjusted economic profit is comprised of two factors: the IFRS Group net income recognised after tax and the change in the balancing items for differences between economic valuations and amounts stated in the IFRS balance sheet. By way of the latter we make allowance in the value determination for changes in the fair values of assets not recognised in income under IFRS as well as for the change in economic effects in the technical Solvency II balance sheet items that are not recognised in the IFRS balance sheet. In addition, interest on hybrid capital already recognised in the IFRS Group net income and the non-controlling interest in profit and loss are included back in the calculation.

Intrinsic Value Creation and excess return on capital allocated **M 03**

	2017		2016			
in EUR million	IVC	xRoCA	Reported IVC	Adjustment[1]	Final IVC	xRoCA
Property and casualty reinsurance	51.6	1.1%	355.7	2.3	358.0	7.1%
Life and health reinsurance	(290.3)	-8.5%	102.7	(20.6)	82.1	2.8%
Investments[2]	592.1	9.4%	325.5	(0.3)	325.2	6.2%
Group	**353.2**	**2.4%**	**783.7**	**(18.7)**	**765.0**	**5.8%**

[1] Restatement based on final Solvency II shareholders' equity as at year-end
[2] Income above risk-free interest rate after deduction of risk-appropriate cost of capital

The allocated capital consists of three components: the shareholders' equity including non-controlling interests, the balancing items for differences between economic valuations pursuant to Solvency II and amounts stated in the IFRS balance sheet and the hybrid capital. Capital is allocated to the profit centres as described above according to the risk content of the business in question. A systematic distinction is made here between the assumption of underwriting risks, on the one hand, and investment risks, on the other. Under the IVC calculation, therefore, only risk-free interest income on the generated cash flows is allocated to the business segments of property & casualty and life & health reinsurance. The investment income above and beyond risk-free is allocated in its entirety to the functional area of investments and included in the IVC after deduction of the risk-appropriate cost of capital and the administrative expenses.

In calculating the cost of capital, our assumption – based on a Capital Asset Pricing Model (CAPM) approach – is that the investor's opportunity costs are 450 basis points above the risk-free interest rate, meaning that value is created above this threshold. Our strategic return on equity target of 900 basis points above risk-free thus already contains a substantial target value creation. We allocate equity sparingly and use equity substitutes to optimise our average cost of capital. At 4.8%, our average cost of capital is comparatively low.

Since comparison of absolute amounts is not always meaningful, we have introduced the xRoCA (excess return on capital allocated) in addition to the IVC. This describes the IVC in relation to the allocated capital and shows us the relative excess return generated above and beyond the weighted cost of capital.

Through the close interlinking of our internal capital model with the capital allocation and value-based management, we fulfil the requirements of the Solvency II use test.

Operational management system

A number of IFRS-based financial performance indicators are also embedded in our strategic system of targets and coordinated with our parameters for value creation derived from the internal capital model. We use these indicators for operational management within the year, in part because they are available promptly and also because they already provide initial pointers as to whether we are likely to achieve our higher-order strategic objectives. These are for both business groups the growth in gross premium, for property and casualty reinsurance the combined ratio, for life and health reinsurance the EBIT margin and for the Group as a whole the return on investment. Non-financial performance indicators, on the other hand, are not used for operational management within the year.

Research and development

Exploring market trends and developing innovative products are tasks assigned to the individual market units at Hannover Re. In addition, business opportunities and innovations that cut across markets and segments are coordinated by the "Regulatory Affairs and Innovation" team and pursued by means of interdisciplinary projects in which various market and service units participate. In this way, we develop products and solutions that deliver value added both for Hannover Re and for our clients. By way of example, our move to give capital market players direct access to insurance risks as far back as the mid-1990s through our "K" transactions puts us among the industry pioneers. The intervening years have seen the evolution of a market for so-called insurance-linked securities, which is one of the fastest growing markets in the insurance sector. Another example of Hannover Re's development activities is our own internal model for risk management under Solvency II that caters to the requirements of various stakeholders (regulators, rating agencies, capital providers) and was one of the first in Europe to be approved by the supervisory authority (BaFin). Not only that, through our active involvement and the provision of financial assistance we support scientific initiatives geared to developing products, solutions or markets that will be crucial success factors going forward in the viability of any reinsurance undertaking.

Reinsurance business is founded on the comprehensive understanding and active management of risks. Our specialists therefore continuously analyse known risks with an eye to changes in their structure and probability of occurrence, while at the same time focusing on the early detection of newly emerging risks and working to provide our clients with appropriate solutions tailored to their needs. Above and beyond this, Hannover Re makes systematic efforts to identify new business opportunities in order to achieve sustainable growth and strengthen the profitable development of the company (cf. here also the Opportunity report on page 101 et seq.).

Vision creates value.

Through innovation.

By combining digital technologies, emerging distribution channels and insurance expertise, insurtech companies are transforming the market.


Innovative insurtech apps simplify lengthy application processes and enable contract formation in just a few clicks.
Through our collaboration with insurtech companies, we are able to provide our clients with optimal solutions to enhance their digital sales processes and customer engagement.

Report on economic position

Macroeconomic climate and industry-specific environment

- Appreciable uptick in global economic growth
- Low interest rate environment remains a drag on the insurance industry
- Capital markets subject to volatility
- Disproportionately heavy incidence of devastating natural disasters

Macroeconomic climate

The pace of growth in the world economy picked up appreciably in 2017. It reached 3.8% (previous year: 3.2%), the sharpest increase since 2011. The revival already began to set in towards the end of 2016 after a softer phase and continued to gather momentum into the late summer. As the year drew to a close, the relevant indicators pointed to a consolidation of the upward cyclical trend in virtually all the major national economies.

After posting moderate growth at the start of the year, manufacturing in the advanced economies expanded vigorously – especially in the six months of summer. The uptick in capital spending was crucial to the strengthening of the underlying economic trend. Consumer demand from private households, which for some time now has remained stable on a high level, was a further factor here. In Japan total economic output continued to rise on the back of a boost from exports. The Eurozone economy similarly sustained its expansion. The upward trend in manufacturing output in the United Kingdom was comparatively modest.

Economic growth in emerging markets also gained added impetus in 2017, after softer increases in the previous years. A key reason here is the recovery in output in commodity-exporting countries, which had suffered heavily in 2015 and 2016 under the collapse in commodity prices and profited in 2017 from significantly higher price levels. Brazil, for example, emerged from its recession. Manufacturing output in Russia, too, trended sharply higher again despite the impacts of sanctions imposed by western industrial nations. In China the pace of economic expansion slowed only marginally, even though the government scaled back its monetary stimuli and despite waning credit growth.

United States

In the US the geopolitical risks that many market players had linked to the new administration were relegated to the sidelines. By the second quarter the economy was already making the most of the generally good framework conditions and substantially boosted its growth rate. Over the year as a whole US manufacturing output rose by 0.8 percentage points to 2.3% on the back of normal capacity utilisation. Unemployment continued to fall year-on-year to 4.4%, a low point last seen at the turn of the millennium. Consumer prices climbed 2.1%, a sharper rise than in the previous year. Looked at in context, however, the price trend remains muted.

Europa

The Eurozone economy sustained its upward trend in 2017: the growth rate improved on the previous year by 0.6 percentage points to 2.4%. The expansion was still driven largely by domestic economic forces. Capital expenditure was once again significantly higher. Yet private consumption also continued to grow at a robust pace on the back of stronger employment and rising wages. Government spending, on the other hand, was down slightly on the previous year.

What is pleasing from the macroeconomic perspective is the fact that the economy is now on a clearly upward track in all the countries across the Eurozone. This is borne out by the currently broad-based nature of the expansion. The three crisis-hit countries of Portugal (+2.6%), Italy (+1.6%) and Greece (+1.4%), for example, consolidated their growth in 2017. The UK economy posted softer growth year-on-year of 1.5% on the back of lower consumer spending.

The state of the labour market continued to improve. The average jobless rate in the Eurozone retreated by 0.9 percentage points relative to the previous year to stand at 9.1%. Greece and Spain nevertheless continue to struggle with very high levels of unemployment. Consumer prices rose by 1.4 percentage points year-on-year to 1.6%, thus approaching the ECB's 2% target.

Germany

For the fifth year in succession the German economy sustained its upswing of the past four years in 2017. A vigorous start to the year was followed by a further acceleration in the pace of economic growth in the subsequent months, boosting gross domestic product – before working days adjustment – by 2.3% (1.9%). Since entering the boom of the years 2006/2007 the German economy recorded stronger growth than in the first three quarters only in the context of the catch-up effects following the great economic slump at the beginning of the previous decade. In view of the very healthy cyclical demand, production capacity utilisation continued to increase and numerous sectors reached their capacity limits. Capacity utilisation remained exceptionally strong in the construction industry.

Private consumption continued to play a large part in the favourable economic trend. It benefited from the favourable state of the labour market, rising real wages and low oil prices. The sustained low level of interest rates also stimulated spending by private households.

The export sector showed further vigorous growth, increasing by 4.3% in 2017 (2.6%). While exports to the Eurozone and Asia expanded, they contracted to the rest of Europe and the United States. Imports increased at a rate of 4.8% (3.9%).

The jobless rate in 2017 fell to 5.7% (6.1%) and continues to trend lower. The number of persons employed domestically rose by more than 550,000. The inflation rate for Germany measured by the consumer price index stood at 1.7% in December 2017 (0.5%).

Asia

Growth in Asia remained brisk in 2017 at 6.4% (6.8%). In China the pace of growth slowed only marginally to 6.8% – despite the fact that the Chinese government substantially scaled back its monetary stimuli in the year just ended. Gross domestic product in the third quarter of 2017 was 6.8 percent higher than a year before and still came in somewhat above the target set by the government. The fact that growth remained on track was also due in part to the country's further expansion of its foreign trade. The problem of structural indebtedness affecting businesses and private households remained very widespread.

In India the rise in output slowed appreciably, falling by 1.4 percentage points year-on-year to 6.4%. Nevertheless, experts consider this to be a temporary effect of the cash reform implemented at the end of 2016 and the introduction of a national Goods & Services Tax. Over the longer term both measures are likely to promote economic growth. Expansion was similarly sustained in the other emerging economies of Southeast Asia. The four national economies of Indonesia, Thailand, Malaysia and the Philippines grew by an average of 5.2% (4.8%).

Gross domestic product in Japan increased by 1.8% year-on-year (0.9%). The export sector played a major role here. Capital spending also picked up appreciably compared to the previous year. Private households, whose expenditures on consumption account for some 60% of the country's economic output, cast aside some of their caution and also boosted their spending.

Capital markets

The investment climate remained challenging in the reporting period and was exposed to numerous potentially unsettling influencing factors. After the surprising outcomes of the Brexit referendum and the US elections in 2016, many feared further sources of unrest for the year under review such as France or the Netherlands moving to leave the EU or the Eurozone. These concerns proved unfounded, however, and even real factors such as the overhaul of international trade agreements and the sluggish progress in forming a government in Germany had little impact on financial markets, which proved to be astonishingly robust and in the case of the Eurozone even surprisingly sprightly. US markets continued to be fuelled by the hope of effective growth incentives from the Trump administration. Towards the end of the year these then materialised with astonishing speed in the form of a major package of tax reforms. In many emerging nations the economy continued to stabilise as the year progressed, while China largely dispelled the doubts about its economic strength that had arisen in the previous year. What is more, markets continued to appear thoroughly crisis-proof in view of the large amount of available liquidity, as a consequence of which the world economy as a whole recorded its strongest year since 2010.

The ECB announced that it would reduce its monthly purchases of corporate bonds but at the same time extend the programme until September 2018. This demonstrates the balancing act that the ECB has to perform in order to avoid giving the impression of an overly brash exit from its support programme while simultaneously demonstrating decisiveness and a willingness to act. All in all, the policy pursued by central banks in our main currency areas was inconsistent. The ECB left the key interest rate for the Eurozone at a historically low 0.00%, whereas the Bank of England raised the prime rate for pound sterling for the first time since 2007 to 0.5% and promised further increases over the next three years. The Federal Reserve moved even further along the path towards normalisation of central bank policy, increasing the base rate for the US dollar in three increments to a range of 1.25% to 1.5% and hence further widening the interest differential between the US dollar and the Eurozone.

Sluggish progress in negotiations between the European Union and the United Kingdom as a consequence of the British people's vote in favour of Brexit led to protracted uncertainty. In the period under review this was especially evident in the decline of the British pound against the euro and US dollar, although it was also reflected in the comparatively muted performance of UK stock markets. Yet the uncertainty surrounding the structuring of future economic and trade relations between the EU and UK as well as the free movement of workers is also generally unfavourable for the national economies of the remaining EU Member States, since it detrimentally affects the planning security and investment readiness of the business community.

Yields on German government bonds remained on a very low level in the year under review. The increases seen as the year progressed were merely modest across all maturities, with negative returns persisting well into the medium maturity segment. UK government bonds similarly saw fairly minimal increases, especially as these were limited primarily to the short and medium maturities. In the case of US Treasury bonds, on the other hand, a rotation of the yield curve could be observed in which rather significant interest rate increases were evident for short maturities. Longer maturities, on the other hand, saw declines.

The uncertainty of the previous year that had prevailed in the valuation of markets for corporate bonds subsided in the period under review. The emerging markets sector, in particular, benefited from more stable commodity prices and attractive exchange rates. This was increasingly reflected across all rating classes in a steady fall in risk premiums on corporate bonds.

Equity markets once again soared to new – in some cases historic – highs in the course of the year. Emerging economies and the US market, above all, booked significant price gains over the year as a whole. Most European indices also ended the year higher – in some instances substantially so – than the previous year, although the gains posted by the UK stock market were rather muted. European equity markets were driven principally by the continued expansionary monetary policy of the ECB and the search by investors for high-return assets. With this in mind, the high price levels can ultimately be explained only partially by fundamentals. Overall, stock markets once again proved to be broadly robust despite all the talk of crisis. While this is gratifying, there is an associated risk that bubbles may form.

The development of the world economy remains subject to various uncertainties and risks, first and foremost of a geopolitical nature. Global heterogeneity associated with varying economic trends and local flashpoints may be mentioned here as a particularly significant consideration. The ongoing risk of terrorism is another factor that needs to be monitored, even though capital markets have hitherto responded to this in rather robust fashion.

The euro more than made up for its losses of the previous year against the US dollar and climbed sharply from USD 1.05 to USD 1.20. The pound sterling also lost ground against the euro after the already heavy losses seen in 2016 following the Brexit referendum, sliding from GBP 0.86 to GBP 0.89. The Australian dollar similarly softened against the euro, retreating from AUD 1.46 to AUD 1.53.

For more detailed remarks on the development of Hannover Re's investments please see the "Investments" section on page 50 et seq.

Industry-specific environment

For the international (re)insurance industry the environment in 2017 remained challenging. Faced with the protracted low level of interest rates, insurers continued to focus on preserving the value of their investments and generating stable returns.

Following the successful roll-out of the European insurance supervision regime Solvency II in 2016, some 350 German and several thousand European insurance undertakings published their Solvency and Financial Condition Report (SFCR) for the first time in the year under review. Insurers are required to give an account of all aspects relevant to their business activities and risk position: the underwriting result and investment result, the governance system including the risk management system and the internal control system, the risk profile of the undertaking, the valuation made for solvency purposes and the organisation's capital management. The planned launch of a new risk-based solvency system in South Africa, known as Solvency Assessment and Management (SAM), was postponed again and is now scheduled for 2018.

Another significant development in the year under review was the publication of the new international accounting standard IFRS 17 by the International Accounting Standard Board (IASB). IFRS 17 replaces the interim standard IFRS 4, which has been in force since 2005, and makes it easier to compare insurers through a consistent worldwide basis for the recognition of insurance contracts. The new measurement model is expected to bring particularly far-reaching changes for the accounting of long-duration contracts. It is still too early to foresee what implications the implementation of IFRS 17 will ultimately have for the comparability and volatility of business results. The new financial reporting standards come into effect starting 1 January 2021, although they are only mandatory for the consolidated financial statements of capital-market-oriented insurance companies.

In the United Kingdom the insurance industry was adversely impacted by the decision of the UK government to lower the "Ogden rate" used for discounting compensation payments in connection with personal injury claims from 2.5% to -0.75% effective March 2017. This means, for example, that severe personal injuries from a motor vehicle accident can lead to higher payments under liability covers. In view of the fact that this change affects not only future claims but also outstanding claims that have still to be run off, insurers and reinsurers were compelled to set aside substantial additional reserves.

In Argentina the opening up of the reinsurance market effective 1 July 2017 prompted some lively activity. The market liberalisation now enables local insurers to cede up to 50% of their business to foreign admitted reinsurers. The quota is to be raised progressively to 75% by 2019.

In Germany the statutory requirement for life insurance companies to build up an additional reserve for the interest rate risk ("Zinszusatzreserve") as security for legacy contracts with guaranteed high returns remains a major challenge. The significance of this issue is further underlined by calls for policymakers to take supportive actions to slow down the accumulation of this additional interest provision.

Digital transformation and progressive digitalisation continued to be a topic of growing importance to the (re)insurance industry in 2017. The focus for insurers was on developing new products, delivering more innovative customer support as well as optimising internal cost structures and business processes. At the same time, increased involvement in and cooperation with start-ups and insurtechs was evident. This trend is expected to continue over the coming years.

Property and casualty reinsurance was once again fiercely competitive in 2017. The capital position of primary insurers remained strong, enabling them to continue running high retentions. What is more, the inflow of capital from the ILS sector into the reinsurance market was sustained, as a consequence of which the supply of capacity in the market comfortably outstripped demand – hence keeping up the pressure on prices and conditions. In the second half of the year signs of a trend reversal could be detected. The three severe hurricanes, combined with the earthquakes in Mexico and forest fires in California, left the (re)insurance industry facing exceptionally heavy loss expenditure. Against this backdrop, indications that the rate level was beginning to pick up could already be discerned by the end of the year.

In the context of advancing digitalisation, the market for insurance against cyber risks showed further strong growth in 2017. Against a backdrop of increasingly widespread cyber attacks, including for example those on the US financial services provider Equifax in May 2017, the surge in demand for covers offering protection against cyber risks was sustained. It remains the case that the vast bulk of the worldwide insurance premium is generated in the United States, but interest in such products continued to grow in Europe too.

The protracted low interest rate environment similarly had implications for life and health reinsurance in the area of traditional life insurance products: not only have they now lost a considerable part of their appeal, they have also to some extent been supplanted by new policies which have been adapted to the changed interest rate situation. Demand for solvency-oriented reinsurance solutions remained robust following the implementation of Solvency II and – especially for longevity business – the associated more exacting capital requirements. On a global scale the progressive demographic shift and increasing ageing of the population continue to drive stronger demand for retirement provision products – on the reinsurance as well as the insurance side. Lifestyle products, which primarily offer risk coverage tailored to protecting the policyholder's specific life situation, are also enjoying a surge in demand. These include, in particular, policies under which the premium is linked to the insured's health-related behaviour (e. g. fitness, nutrition). Although the purchasers of such products have hitherto tended to be in Anglo-Saxon and Asian markets, a tangible interest in this trend can now also be detected in Europe.

Business development

- Currency-adjusted growth in gross premium better than forecast
- Very good Group net income despite unusually high burden of large losses
- Property and casualty reinsurance falls short of previous year owing to natural catastrophe losses
- Life and health reinsurance adversely impacted by parts of the existing US mortality portfolio
- Investment income comfortably beats return expectations
- Return on equity: 10.9%

The development of business in 2017 was shaped by exceptionally heavy losses in the third quarter. As a result, the large loss budget of EUR 825 million that we had earmarked for the full year had already been exceeded as at 30 September 2017. Further large losses in the fourth quarter pushed the total expenditure higher to altogether EUR 1,127.3 million.

It is therefore all the more pleasing that we were able to generate very good Group net income of EUR 958.6 million. While this is lower than our original guidance of more than EUR 1 billion, it clearly exceeds the EUR 800 million that we had forecast in November 2017. This performance should also be viewed extremely favourably in comparison with our competitors. Our result was assisted by exceptionally gratifying investment income as well as by the release of reserves established for loss events of prior years that were no longer required.

Please find below a brief summary of the development of our two business groups – Property & Casualty and Life & Health reinsurance – and our investments. More detailed information is to be found on pages 31 to 58.

Property & Casualty reinsurance

The situation in property and casualty reinsurance was little changed in the year under review. The fiercely competitive state of the market initially continued unabated; reinsurance capacity was still substantially in excess of demand. Additional capacities from the insurance-linked securities (ILS) market added to the sustained pressure on prices and conditions. Nevertheless, profitable business opportunities also opened up in the various rounds of treaty renewals.

Against this backdrop gross premium rose by 16.4% to EUR 10.7 billion (previous year: EUR 9.2 billion). At constant exchange rates growth would have reached 18.7%. It thus clearly surpassed our expectations.

After a moderate loss experience in the first half of the year, the third quarter was dominated by three severe hurricanes as well as other natural catastrophe events. Altogether, the net expenditure on large losses incurred by Hannover Re stood at EUR 1,127.3 million, compared to EUR 626.6 million in the comparable period. As anticipated, the combined ratio of 99.8% (93.7%) was higher than our targeted maximum figure of 96%.

Investment income from assets under own management in property and casualty reinsurance delivered a gratifying performance. It increased by 35.9% to EUR 1,191.5 million (EUR 876.9 million), a reflection of – among other things – the positive effect from the disposal of our equity portfolio. Nevertheless, ordinary income also rose by 12.8% to EUR 1,014.7 million (EUR 899.3 million).

In the aftermath of a challenging year we are thoroughly satisfied with the result in property and casualty reinsurance, even though the underwriting result of EUR -2.3 million fell well short of the previous year (EUR 479.1 million) owing to the heavy burden of catastrophe losses. The operating profit (EBIT) as at 31 December 2017 reached a level of EUR 1,120.2 million (EUR 1,340.3 million) thanks to the positive investment income. The EBIT margin of 12.2% was higher than the minimum target of 10%. Group net income contracted by 11.8% to EUR 837.3 million (EUR 949.9 million).

Life & Health reinsurance

The business performance in life and health reinsurance was shaped by both positive and negative developments.

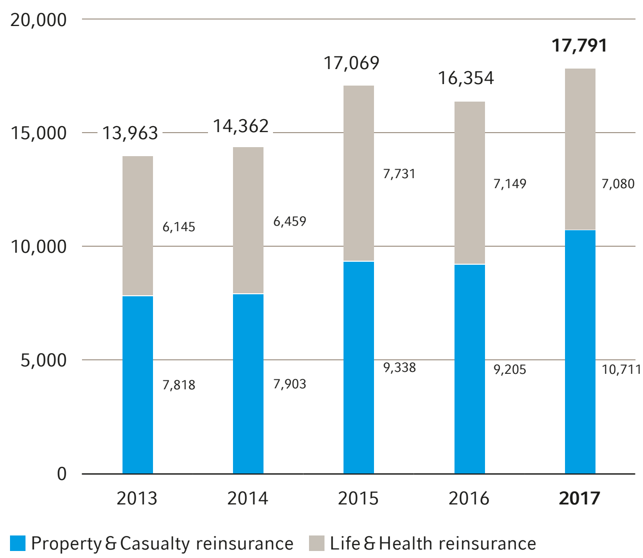
Our financial solutions business, which further increased its profit contribution, was thoroughly gratifying. We were less satisfied with the development of our US mortality business – and in particular with the portfolio assumed in 2009, which continues to show a mortality in excess of expectations. In addition, we booked a non-recurring negative effect of around EUR 45 million. This one-time charge was attributable to the recapture of a reinsurance treaty in order to avoid higher losses over the long term.

Gross premium income in life and health reinsurance contracted marginally by 1.0% and was on a par with the previous year at EUR 7.1 billion (EUR 7.1 billion). Adjusted for exchange rate effects, modest growth of 1.4% would have been recorded. The Value of New Business (VNB) came in at EUR 364 million, again comfortably beating the targeted level of EUR 220 million.

Investment income declined by 12.3% in the year under review to EUR 560.6 million (EUR 638.9 million). The decrease was due to reduced interest on funds withheld and contract deposits. Of the total investment income, EUR 343.5 million (EUR 330.8 million) was attributable to assets under own management and the remaining EUR 217.1 million (EUR 308.1 million) to securities deposited with ceding companies.

The operating profit (EBIT) fell by 28.6% to EUR 245.2 million (EUR 343.3 million) due to the situation described above in US mortality business and the one-off effect. The EBIT margins achieved within the individual reporting categories were as follows: in mortality and morbidity business we fell well short of the 6% target with an EBIT margin of 0.0%. Longevity business reached its stated target of 2% with an EBIT margin of 2.1%. The EBIT margin for financial solutions business amounted to 25.4%, thereby comfortably beating the minimum target of 2%. The Group net income booked for our Life & Health reinsurance business group totalled EUR 172.6 million (EUR 252.9 million).

Gross premium by business group M 04
in EUR million



Investments

Bearing in mind the challenging market environment, we are highly satisfied with the development of our investments as at 31 December 2017. Our portfolio of investments under own management contracted to EUR 40.1 billion (31 December 2016: EUR 41.8 billion). This was driven above all by negative exchange rate effects – especially associated with the weaker US dollar – as well as slightly reduced hidden reserves and the dividend distribution.

Despite the low level of interest rates, ordinary investment income excluding interest on funds withheld and contract deposits surpassed the previous year (EUR 1,162.0 million) at EUR 1,289.0 million.

Net realised gains on investments as at 31 December 2017 increased sharply from EUR 206.3 million to EUR 377.1 million. This can be attributed in large measure to the liquidation of our equity portfolio. The impairments taken in the year under review were only again only minimal.

Income from assets under own management climbed 26.3% to EUR 1,539.0 million (EUR 1,218.3 million). The resulting annual return amounted to 3.8% (3.0%). We had forecast a level of 2.7% and subsequently revised this target higher to 3.0% in November 2017. Investment income including interest on funds withheld and contract deposits rose to EUR 1,773.9 million (EUR 1,550.4 million), an increase of 14.4% relative to the previous year. Interest on funds withheld and contract deposits totalled EUR 234.9 million (EUR 332.1 million).

Total result

The gross premium in our total business increased by 8.8% as at 31 December 2017 to EUR 17.8 billion (EUR 16.4 billion). Growth of 11.2% would have been booked at constant exchange rates. We thus surpassed our guidance, which had initially anticipated an increase in the low single-digit percentage range and was ultimately raised to more than 5% over the course of the year. The level of retained premium climbed to 90.5% (89.3%). Net premium earned rose by 8.5% to EUR 15.6 billion (EUR 14.4 billion). At unchanged exchange rates the increase would have been 10.8%.

The operating profit (EBIT) fell by 19.2% to EUR 1,364.4 million (EUR 1,689.3 million) owing to the above-average burden of large losses. Group net income contracted year-on-year to EUR 958.6 million (EUR 1,171.2 million). We thus comfortably outperformed the revised guidance of EUR 800 million issued with the quarterly statement for the third quarter owing to the hurricane events. Earnings per share for the Hannover Re Group stood at EUR 7.95 (EUR 9.71).

The equity position remains highly robust: the equity attributable to shareholders of Hannover Re totalled EUR 8.5 billion (EUR 9.0 billion) as at 31 December 2017. The return on equity amounted to a good 10.9% (13.7%). The book value per share reached EUR 70.72 (EUR 74.61). In view of the exceptionally heavy losses incurred in the year under review, the forecasts provided for the 2017 financial year as shown in the following table "Business development in the year under review" were only partially achievable.

The total policyholders' surplus, consisting of shareholders' equity, non-controlling interests and hybrid capital, amounted to EUR 10.8 billion (EUR 11.2 billion) as at 31 December 2017.

With the publication of the annual financial statement we are also releasing the capital adequacy ratio of the Hannover Re Group calculated in accordance with the requirements of Solvency II. It increased relative to the previous year to reach a level of 260% as at 31 December 2017 (31 December 2016: 230%).

Business development in the year under review **M 05**

	Forecast 2017	Target attainment 2017
Gross premium growth (Group)	Growth in the low single-digit percentage range or > 5.0% [1, 2]	+11.2% at constant exchange rates +8.8% not adjusted for currency effects
Gross premium growth for Property & Casualty reinsurance	slight growth [1]	+18.7% at constant exchange rates +16.4% not adjusted for currency effects
Gross premium growth for Life & Health reinsurance	moderate growth [1, 3]	+1.4% at constant exchange rates -1.0% not adjusted for currency effects
Return on investment [4]	2.7% or > 3.0% [5]	3.8%
Group net income	> EUR 1 billion or around EUR 800 million [6, 7]	EUR 958.6 million

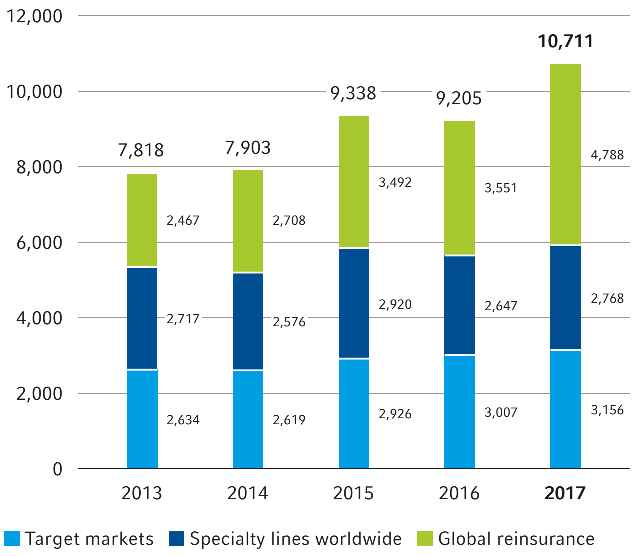
1 At constant exchange rates
2 In the context of publication of the half-yearly financial report the guidance for gross premium growth (Group) was raised to more than 5.0%.
3 Organic growth only
4 Excluding ModCo derivatives
5 In the context of publication of the quarterly statement as at 30 September 2017 the guidance for the return on investment was raised to more than 3.0%.
6 Assuming stable capital markets and/or major loss expenditure in 2017 that does not exceed EUR 825 million
7 In the context of publication of the quarterly statement as at 30 September 2017 the guidance for Group net income was revised to around EUR 800 million.


Vision creates value.
Through reliability.
We settle claims quickly and straightforwardly to keep downtimes as short as possible.

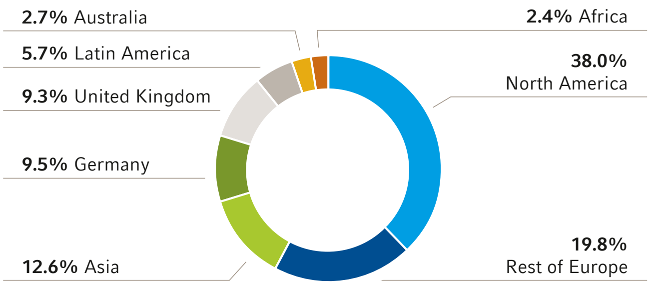

Natural disasters cause damage to property, which can in turn trigger production losses and business interruptions.
Extreme weather events are coming up against rising insured values: In 2017, insured losses from natural disasters amounted to more than USD 100 billion worldwide.

Property & Casualty reinsurance at a glance

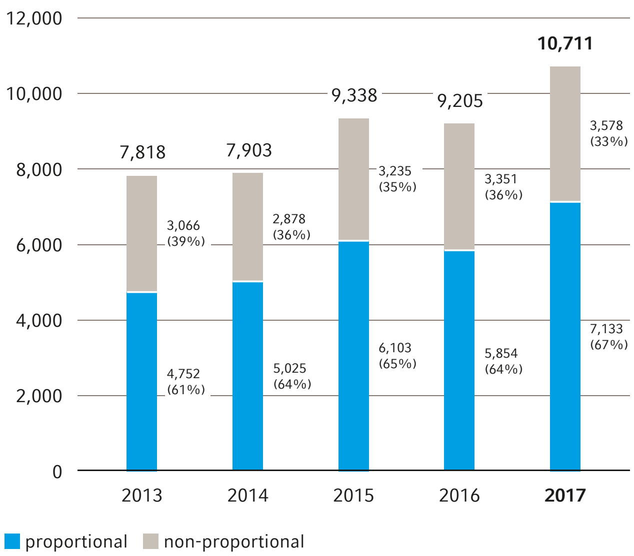
Gross written premium in P&C reinsurance M06
in EUR million



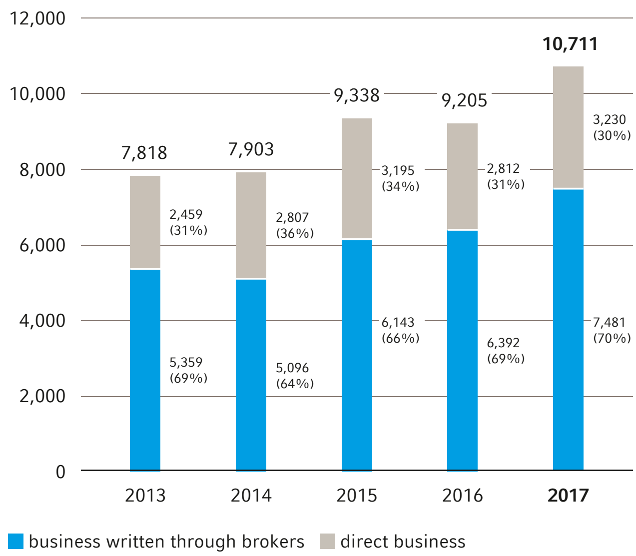
Geographical breakdown of gross written premium in 2017 M07



Breakdown of gross premium by treaty types: proportional and non-proportional treaties by volume M08
in % and in EUR million



Breakdown of gross premium by distribution channel: through brokers/direct M09
in % and in EUR million



Overall assessment of the business position

Hannover Re is satisfied with the development of business in 2017, even though the company was unable to achieve all its targets due to the above-average burden of large losses. As a consequence of the severe catastrophe loss events that occurred primarily in the second half of the year, the profit target of more than EUR 1 billion was no longer attainable. The company did, however, meet the reduced guidance of around EUR 800 million announced in the autumn. The sale of the portfolio of listed equities in the third quarter was a positive factor in the solid level of Group net income.

While the higher-than-average strains from natural catastrophe losses adversely impacted the result recorded by Hannover Re, they will have no lasting effect on our profitability or capitalisation. Quite the contrary: the losses have led to a renewed improvement in market conditions for reinsurers.

The company's shareholders' equity continues to be robust. At the time of preparing the management report, both the business position of the Hannover Re Group and its financial strength remain good. The Executive Board and Supervisory Board will therefore propose to the Annual General Meeting that a dividend on the level of the previous year should be paid.

Results of operations

In the following sections we discuss the development of the financial year in our two strategic business groups, namely Property & Casualty reinsurance and Life & Health reinsurance, as well as the performance of our investments and the financial position and assets of our Group. Supplementary to the information provided here, the "Segment reporting" in section 5 of the notes to this Annual Report shows the key balance sheet items and profit components of the two business groups.

Property & Casualty reinsurance

- Gross premium volume up by a pleasing 16.4%
- Large loss expenditure of EUR 1,127 million significantly higher than the budgeted level of EUR 825 million
- Combined ratio still satisfactory at 99.8% despite deterioration due to large losses
- Group net income down by 11.8% due to large losses

Accounting for 60% of our premium volume, Property & Casualty reinsurance is Hannover Re's largest business group. It is structured according to our Board areas of responsibility, namely "Target markets", "Specialty lines worldwide" and "Global reinsurance".

The market environment in worldwide property and casualty reinsurance was little changed overall in the year under review compared to the previous year. The prevailing intense competition continued unabated owing to the absence of market-changing large losses in the previous year. Reinsurance capacity clearly outstripped demand, with additional capacities putting prices and conditions under sustained pressure. Stronger demand could, however, be observed in some regions.

All in all, we were satisfied with the outcome of the treaty renewals as at 1 January 2017 – when 64% of our portfolio in property and casualty reinsurance was renegotiated. Despite challenging treaty renewals we benefited from our customer intimacy and our ability to offer tailor-made reinsurance products. Considerably increased demand was evident on the customer side for reinsurance solutions providing solvency relief. Attractive opportunities to expand the portfolio also opened up in North America, most notably in Canada, as well as in credit and surety business and in the area of cyber covers. Yet in this round of renewals it was again the case that we did not renew all our treaties on account of our own profitability requirements. Despite this, we were able to enlarge the premium volume in the 1 January renewal season. We were similarly satisfied with the various treaty renewals that took place during the year, further boosting our premium volume in a number of regions and lines including North America and credit/surety.

Against this backdrop, gross premium in the year under review rose by 16.4% to EUR 10.7 billion (previous year: EUR 9.2 billion). Growth would have reached 18.7% at constant exchange rates. This figure puts us ahead of our expectations. The level of retained premium climbed slightly to 89.7% (88.5%).

Net premium earned increased by 14.7% to EUR 9.2 billion (EUR 8.0 billion); adjusted for exchange rate effects, growth would have amounted to 17.0%.

In contrast to the previous years, the burden of major losses in 2017 was substantially higher than budgeted. After the first six months had passed off very quietly in terms of large losses, the second half of the year was dominated by severe natural catastrophe events – including three major hurricanes in the third quarter alone. Hurricane "Harvey", which caused heavy damage in Texas and the neighbouring states, was followed by "Irma's" trail of devastation in Florida and the Caribbean Islands. Hurricane "Maria" caused particularly widespread destruction in Puerto Rico. These three events alone resulted in net loss expenditure of EUR 749.4 million for our account. The two damaging earthquakes that struck Mexico in September cost our company a combined amount of EUR 49.2 million. The forest fires in California also caused considerable losses for our company totalling EUR 101.1 million. These and other events added up to total net major loss expenditure of EUR 1,127.3 million. Not only was the large loss budget of EUR 825 million thereby clearly exceeded, this was also the year with the heaviest burden of large losses in the history of Hannover Re. For a detailed list of these large losses please see page 90. The underwriting result including interest and expenses on funds withheld and contract deposits deteriorated from EUR 503.1 million to EUR 15.5 million owing to the high burden of losses. The combined ratio for the year under review declined from 93.7% to 99.8% and thus exceeded our targeted figure of 96%.

The investment income for the Property & Casualty reinsurance business group was, however, thoroughly gratifying. Driven by higher ordinary investment income and extraordinary gains generated from the disposal of our portfolio of listed equities, the income from assets under own management surged by 35.9% to EUR 1,191.5 million (EUR 876.9 million). The operating profit (EBIT) retreated to EUR 1,120.2 million (EUR 1,340.3 million) in view of the heavy large loss expenditures. The EBIT margin consequently contracted from 16.8% to 12.2%. We nevertheless achieved our minimum target of 10%. Group net income fell by 11.8% to EUR 837.3 million (EUR 949.9 million). Earnings per share for the Property & Casualty reinsurance business group amounted to EUR 6.94 (EUR 7.88).

On the following pages we report in detail on developments in the individual markets and lines of our Property & Casualty reinsurance business group, split into the three areas of Board responsibility referred to at the beginning of this section.

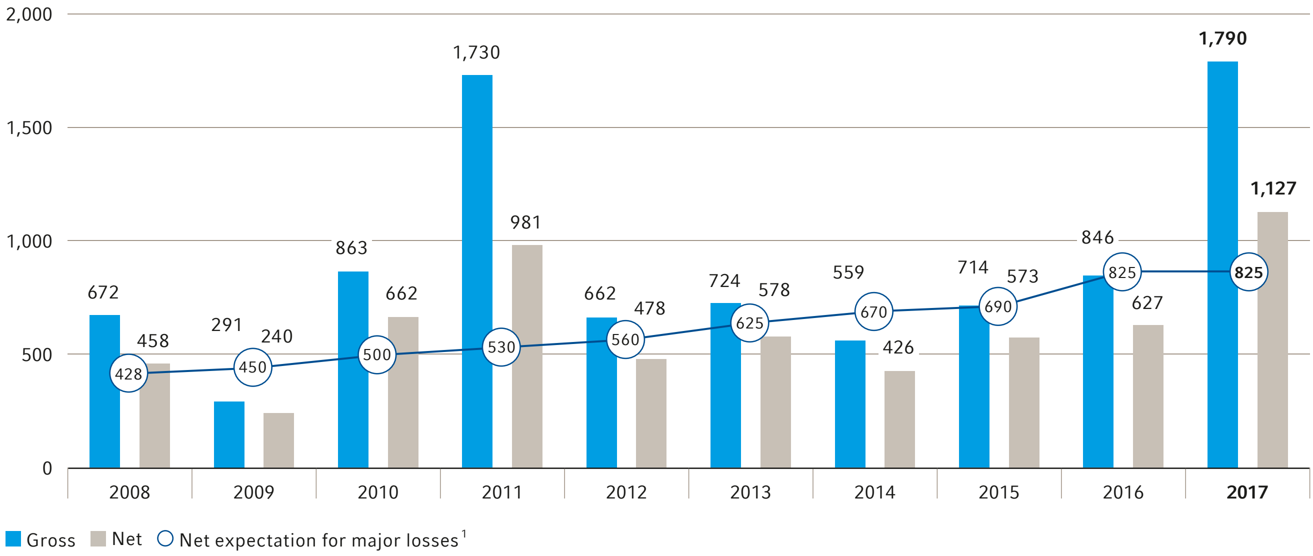
Key figures for Property & Casualty reinsurance **M 10**

in EUR million	2017	+/– previous year	2016	2015	2014	2013
Gross written premium	10,710.9	+16.4%	9,204.6	9,338.0	7,903.4	7,817.9
Net premium earned	9,158.7	+14.7%	7,985.0	8,099.7	7,011.3	6,866.3
Underwriting result[2]	15.5	-96.9%	503.1	452.4	371.9	350.5
Net investment income	1,209.3	+34.2%	900.9	945.0	843.6	781.2
Operating result (EBIT)	1,120.2	-16.4%	1,340.3	1,341.3	1,190.8	1,061.0
Group net income	837.3	-11.8%	949.9	914.7	829.1	807.7
Earnings per share in EUR	6.94	-11.8%	7.88	7.58	6.88	6.70
EBIT margin[1]	12.2%		16.8%	16.6%	17.0%	15.5%
Retention	89.7%		88.5%	89.3%	90.6%	89.9%
Combined ratio[2]	99.8%		93.7%	94.4%	94.7%	94.9%

[1] Operating result (EBIT)/net premium earned
[2] Including expenses on funds withheld and contract deposits

Property & Casualty reinsurance: Major loss trend [1]
in EUR million

M 11



[1] Natural catastrophes and other major losses in excess of EUR 10 million gross (until 31 December 2011: in excess of EUR 5 million gross)

Property & Casualty reinsurance: Key figures for individual markets and lines in 2017

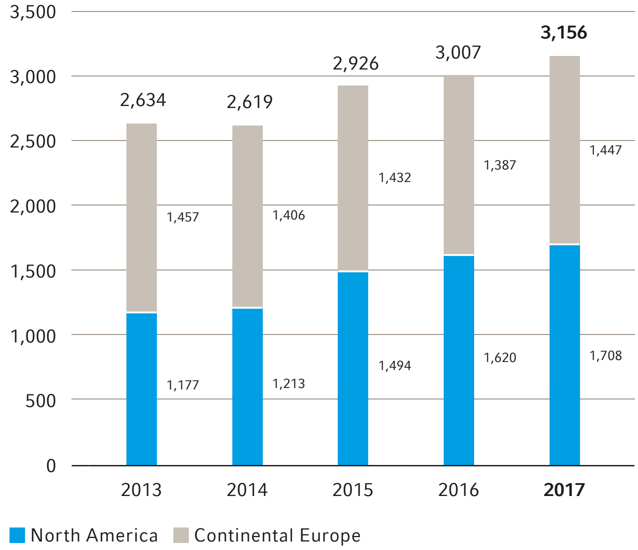
M 12

	Gross premium 2017 in EUR million	Change in gross premium relative to previous year	Gross premium 2016 in EUR million	EBIT in EUR million	Combined ratio	Maximum tolerable combined ratio (MtCR)
Target markets	**3,155.6**	**+4.9%**	**3,007.0**	**441.8**	**102.8%**	**95.8%**
North America	1,708.3	+5.5%	1,619.7	177.5	111.3%	95.9%
Continental Europe	1,447.3	+4.3%	1,387.3	264.3	93.1%	95.6%
Specialty lines worldwide	**2,767.6**	**+4.6%**	**2,646.6**	**349.5**	**98.8%**	**96.4%**
Marine	260.1	-6.2%	277.5	35.7	96.0%	90.8%
Aviation	247.9	-11.0%	278.7	267.8	-14.7%	99.7%
Credit, surety and political risks	666.7	+8.7%	613.5	112.8	91.1%	94.7%
UK, Ireland, London market and direct business	791.2	+56.5%	505.6	(106.5)	140.9%	97.4%
Facultative reinsurance	801.7	-17.5%	971.4	39.7	103.7%	97.3%
Global reinsurance	**4,787.7**	**+34.8%**	**3,550.9**	**328.9**	**98.2%**	**96.0%**
Worldwide treaty reinsurance	1,826.7	-3.1%	1,885.0	237.4	96.3%	96.1%
Catastrophe XL (Cat XL)	354.2	-0.8%	357.2	(3.3)	121.1%	82.2%
Structured reinsurance and insurance-linked securities	2,606.8	+99.2%	1,308.7	94.8	97.7%	98.7%

Target markets

Hannover Re classifies North America and Continental Europe as target markets. The premium volume rose by 4.9% to EUR 3,155.6 million (EUR 3,007.0 million). Growth was in line with our expectations. The combined ratio deteriorated sharply from 92.5% to 102.8%. The operating profit (EBIT) consequently fell to EUR 441.8 million (EUR 598.2 million).

Property & Casualty reinsurance: Breakdown of gross written premium in target markets **M 13**
in EUR million



North America

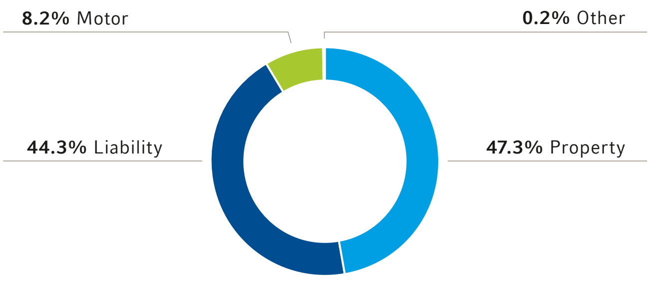
The North American (re)insurance market is the largest single market both worldwide and for Hannover Re. Our business here is written almost exclusively through brokers.

After pausing for breath in 2016, the strength of the US economy was on display again in the year under review. The positive momentum was driven above all by the generally stable financial situation as well as increased consumer spending. The move by the Federal Reserve to raise the key interest rate, thereby enabling our cedants to generate higher investment income, was also gratifying. The stronger growth overall in the United States of course also had positive implications for premium growth in the insurance industry. This came in at around 4%.

While modest rate reductions had still been observed on the primary insurance side going into the year, a positive trend towards stable rates set in as the year under review progressed. Towards year-end rates picked up appreciably in view of the catastrophe losses in the US.

On the reinsurance side we booked premium growth in all three areas of US liability business (standard, special and professional liability), with conditions for proportional treaties remaining broadly stable. Most notably, the professional indemnity lines showed modest rate increases, hence enabling us to further enlarge our medical malpractice business, in particular. We grew our premium volume in a number of other areas, too, including cyber covers. We make appropriate capacities available to selected clients in this segment. In US property business the rate level had softened somewhat at the beginning of the year, but prices rose in the course of the year under review on account of the elevated losses from natural catastrophes. Conditions remained largely unchanged.

Property & Casualty reinsurance: Breakdown of gross written premium in North America by line of business **M 14**



As a consequence of the three hurricanes “Harvey”, “Irma” and “Maria”, and also owing to the forest fires in California, the year under review was one of exceptionally heavy losses for the US market. The combined ratio for the reinsurance market consequently climbed to well over 100%, as against 95% in the previous year. For our company, too, these events – after years of moderate loss expenditures – resulted in substantial strains. Detailed figures on our large losses are provided on page 90. It is gratifying to note that the losses impacted Hannover Re less heavily than our market shares would have suggested – something which can be attributed to a prudent underwriting policy in highly exposed zones and our retrocession strategy.

On the whole, though, we are satisfied with our results in North America. We are a valued partner based on our expertise and robust financial strength. Thanks to our long-standing good customer relationships, we were able to further extend our market footprint and boost our premium volume. In the year under review we entered into a partnership with a major client from which we expect to generate substantial additional premium.

In the year under review we continued to cautiously expand our volume of so-called program business, a form of primary insurance that we write through managing agents in North America.

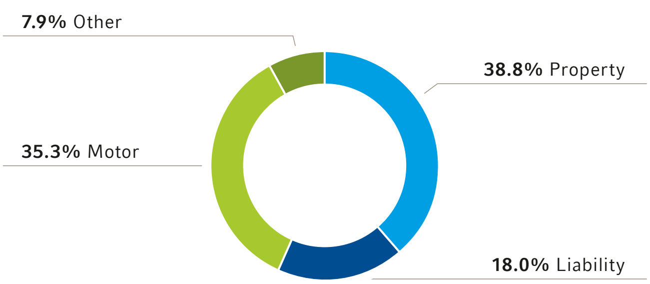
The "Covered Agreement" between the United States and European Union that was signed in September 2017 will have pleasing implications for future results. The reinsurance collateral that we are required to furnish to our customers for business written in the US will be reduced or entirely eliminated over the coming years.

Despite the already healthy growth recorded in 2016, the premium volume increased again in the year under review by a further 5.5% to EUR 1,708.3 million (EUR 1,619.7 million). Reflecting the loss situation, the combined ratio climbed to 111.3% (91.0%). Against this backdrop the operating profit (EBIT) declined to EUR 177.5 million (EUR 393.3 million).

Continental Europe

We group together the markets of Northern, Eastern and Central Europe as Continental Europe. The largest single market here is Germany. The premium volume for our business in Continental Europe in the year under review came in at EUR 1,447.3 million (EUR 1,387.3 million). The combined ratio improved to 93.1% (94.3%). The operating profit (EBIT) climbed to EUR 264.3 million (EUR 204.9 million).

Property & Casualty reinsurance: Breakdown of gross written premium in Continental Europe by line of business M 15



Germany

The German market is served within the Hannover Re Group by our subsidiary E+S Rück. As the "dedicated reinsurer for Germany", the company is a sought-after partner thanks to its very good rating and the continuity of its business relationships. E+S Rück is superbly positioned in its domestic market and a market leader in property and casualty reinsurance.

The German insurance market was stable in the year under review and recorded modest premium growth. The increases derived in particular from motor and homeowners' insurance.

In view of the healthy capital position enjoyed by German insurers, we observed a trend towards increases in retentions that were substantial in some instances. So-called alternative capital, i. e. risk transfer to the capital markets, does not play a significant role in the German (re)insurance market.

In property and casualty insurance prices in original business moved higher. This was especially true of homeowners' comprehensive and motor insurance in view of the continued strained claims situation in these lines. In motor insurance higher prices for automotive parts also made themselves felt. The costs of personal injury claims also remained stubbornly high.

On the reinsurance side the German market was stable in terms of both rates and conditions. Significant adjustments were seen only in the case of treaties that were particularly heavily impacted by losses. Driver assistance systems are emerging as a new factor in motor insurance. With this in mind E+S Rück is cooperating with a major mobile communications provider under a pilot project. Our goal is to offer German motor insurers the possibility of easy access to the field of telematics, while at the same time adding to the existing range of services for our customers.

Industrial fire business was still problematic: high losses were again incurred in this line. Although premium income showed an increase in the low single-digit percentage range, the premium level is only sufficient to cover attritional and mid-sized claims, not large losses. There is no prospect of a change in the situation because competition remains intense.

Positive results were, however, booked in the general liability, householders and accident lines.

In natural catastrophe business a number of local flood events caused by heavy rainfall resulted in losses, although for the most part these remained within the retentions run by primary insurers. Given the increasing prevalence of natural disasters, covers for extended natural perils are likely to become ever more important.

Cyber insurance is another area of growing significance in Germany. We lost no time in responding to this rising demand and are cooperating with a service provider to offers small and mid-sized enterprises a service platform for cyber security solutions and risk management.

We have actively fostered the trend towards new digital insurance start-ups and enabled various players to enter the market by providing their reinsurance protection.

All in all, we are satisfied with the development of our property and casualty reinsurance portfolio in the German market. Premium income contracted marginally in the year under review; we had anticipated a virtually stable premium volume in our guidance.

Rest of Continental Europe

European insurance markets were once again fiercely competitive in the year under review on account of surplus capacities; this was especially true of mature markets such as France and Northern Europe. The situation was particularly competitive in the fire / industrial lines and in motor business. On the reinsurance side, too, there was no easing in the intense competition. Demand for tailored reinsurance solutions was nevertheless brisk. In long-tail liability lines – and here primarily in the motor sector – conditions remained challenging, promoting us to write this business only on a highly selective basis. Overall, we are satisfied with the development of the accident line and hence further expanded our premium volume here. The performance of our portfolio in the Netherlands, which grew across all lines of business, was pleasing.

All in all, we further boosted our shares under long-standing client relationships in the countries of Continental Europe; this was true of both larger and smaller customer accounts.

Growth rates in the countries of Central and Eastern Europe – for both the primary and reinsurance market – were still stronger than the European average overall. For the most part, however, prices for reinsurance covers declined in the face of intense competition. This was not the case in Polish motor business, though, where rates moved higher. This was driven by the negative loss experience as a consequence of new case law under which accident victims are entitled to higher liability claims.

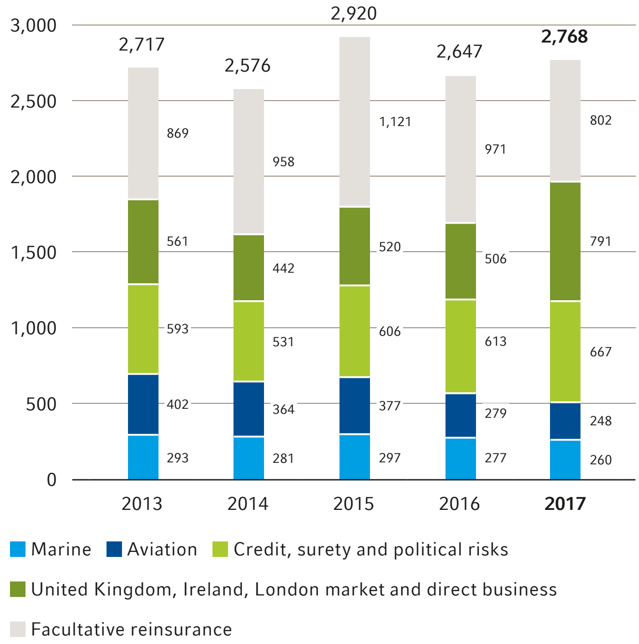
Despite the competition, the lively demand for reinsurance solutions continued unabated. A key driver here was the more demanding requirements placed on the capital resources of insurance companies under Solvency II. On the whole, we were able to secure broadly risk-adequate rates and conditions for the region of Central and Eastern Europe in the year under review and hence generated satisfactory results on the back of an increased premium volume. On the claims side the territory of the Russian Federation was notable principally for two sizeable losses as well as a number of smaller events.

Specialty lines worldwide

Under specialty lines we include marine and aviation reinsurance, credit and surety reinsurance, business written on the London Market as well as direct business and facultative reinsurance.

The premium volume for specialty lines in the year under review amounted to EUR 2,767.6 million (EUR 2,646.6 million). The combined ratio deteriorated to 98.8% (90.9%). The operating profit (EBIT) for specialty lines contracted to EUR 349.5 million (EUR 447.8 million).

Property & Casualty reinsurance: Breakdown of gross written premium in worldwide specialty lines **M 16**
in EUR million



Marine

The rate decline in marine insurance continued in 2017, although it was less marked. Underlying factors such as the low oil price, the merely faltering growth of the global economy and excess capacities in the market for transportation of freight and cargo meant that there was no appreciable change in demand for marine insurance solutions. In the face of falling prices for commodities and other goods, the premium volume in the market continued to contract. Combined with a modest rise in the available capacity, the pressure on original rates increased again slightly in both offshore energy and marine insurance business.

Claims expenditure in the first half of the year was gratifyingly light. The third and to some extent also the fourth quarter, however, were impacted by significant losses from the hurricanes in the United States and Caribbean. Clients who wrote yacht insurance were especially hard hit by the windstorm events. Providers of insurance solutions for inland transportation in the US market also incurred substantial losses. As one of the world's leading marine reinsurers, the aforementioned losses from natural perils also left their mark on our books.

The gross premium for our marine portfolio contracted by 6.2% to EUR 260.1 million (EUR 277.5 million). The loss expenditure led to a deterioration in the combined ratio, which slipped to 96.0% (38.5%), and hence also in the underwriting result. The operating profit (EBIT) fell to EUR 35.7 million (EUR 138.1 million).

Aviation

International aviation (re)insurance remained under strain in 2017: the line continues to see a significant oversupply of capacity. This is true of both the original market and the reinsurance side.

While expenditure on large losses in the airline sector was minimal in the year under review, a significant part of the market premium again had to be allocated to small and mid-sized losses that were not widely reported in the media. In non-airline (general aviation) business and in the area of product liability the market was impacted not only by normal claims activity but also by individual larger events. We incurred one sizeable loss from a typhoon in China.

Given the strained state of the market, especially in the aftermath of the hurricane events, initial signs of stabilisation in the aviation market could be detected both on the primary and reinsurance side.

During this phase of potential market upturn we kept our disciplined underwriting strategy unchanged and focused especially on non-proportional business. In this segment we operate as one of the market leaders.

The premium volume for our total aviation portfolio contracted in the year under review from EUR 278.7 million to EUR 247.9 million. Given the elevated level of large losses compared to the previous year, the combined ratio from regular business operations increased slightly. However, the operating profit (EBIT) for our aviation portfolio increased to EUR 267.8 million (EUR 108.9 million) on account of the release of reserves set aside for prior underwriting years that were no longer required.

Credit, surety and political risks

Growth in the global primary insurance market remained relatively soft. Reinsurance cessions, on the other hand, were slightly higher. This was especially true of the credit and political risks lines; they were stable in surety business.

The claims frequency was lower than in previous years, especially as regards mid-sized claims. Rates on both the primary and reinsurance side consequently moved slightly lower or remained unchanged.

Hannover Re writes the bulk of its business in the form of proportional treaties. It ranks among the market leaders in worldwide credit and surety reinsurance and in the reinsurance of political risks. New clients were added in the year under review, thereby further diversifying the portfolio.

Against this backdrop, coupled with the expansion of existing customer relationships, gross premium increased in the year under review by a very pleasing 8.7% to EUR 666.7 million (EUR 613.5 million).

The combined ratio for the entire segment improved to 91.1% on the back of reduced loss ratios; it had stood at 104.9% in the comparable period. The operating profit (EBIT) rose to EUR 112.8 million (EUR 8.3 million).

United Kingdom, Ireland, London Market and direct business

United Kingdom, Ireland and the London Market

The result of the property and casualty business that we reinsure for companies in the United Kingdom and on the London Market was not entirely satisfactory in 2017.

Primary insurance rates in most lines stabilised in the financial year just ended and the fierce competition of the previous years abated somewhat. However, the reduction of the Ogden rate – the discount rate used in the UK to calculate lump-sum compensation payments for personal injuries – from 2.5% to -0.75% compelled all insurers writing personal injury lines to set aside additional reserves, in some cases in a significant amount.

The prices of reinsurance programmes with exposures to these lines hardened appreciably in the course of 2017. Most notably, the cost of motor reinsurance covers went up considerably. Compared to the previous two years, some easing in the pressure on rates in the other property and casualty lines could already be observed as the year progressed. Prices ultimately began to harden following the hurricane losses in the third quarter.

Direct business

We also write primary insurance business through our subsidiary International Insurance Company of Hannover SE (Inter Hannover). This essentially involves tightly defined portfolios of niche or other non-standard business that complements our principal commercial activity as a reinsurer.

We write a large portion of this direct business in the London Market and through our Swedish branch, although it increasingly derives from Canada, Australia and Germany as well. The result from direct business was satisfactory despite the prevailing intense competition. In the first quarter of 2017 the change in the Ogden rate in the United Kingdom necessitated a not inconsiderable increase in the reserves for serious personal injuries under liability policies, with implications for our account too in the year under review. As a consequence of this change rates for motor business surged sharply higher. Other than this, rates declined overall by between 5% and 10% – until the hurricane events in the second half of the year. Since then, however, property insurance has recorded rate increases substantially in excess of 10% in the hurricane-impacted regions. We were able to act on promising business opportunities in the year under review and enlarged our premium volume.

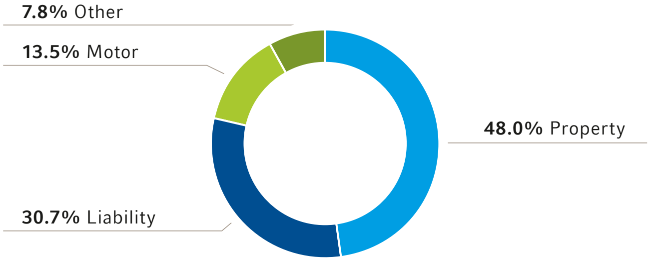
The gross premium booked from the United Kingdom, Ireland, the London Market and direct business rose from EUR 505.6 million to EUR 791.2 million. The vigorous growth derived in part from the aforementioned effects and was also due to a portfolio transfer from the area of facultative reinsurance. Reflecting above all the increase of almost EUR 300 million in the loss reserves for our acceptances of non-proportional UK motor business, the combined ratio for the segment United Kingdom, Ireland, London Market and direct business rose to 140.9% (95.6%). The operating profit (EBIT) declined to EUR -106.5 million (EUR 97.5 million).

Facultative reinsurance

In contrast to obligatory reinsurance, a reinsurer underwrites primarily individual risks in facultative business. The general environment for both types of reinsurance in the various markets is, however, for the most part comparable.

In the first six months of the year under review it remained the case that extended coverage concepts and price reductions were observed in many areas. Faced with this market environment, we wrote our business selectively and premium income in the first half of the year was consequently slightly lower.

Property & Casualty reinsurance: Breakdown of gross written premium in facultative reinsurance **M 17**



The exceptionally heavy incidence of natural disasters in the third quarter triggered stronger demand for natural catastrophe covers, accompanied by a correspondingly favourable pricing trend. This turnaround generated business opportunities to which we responded by moderately expanding our acceptances.

Our focus on our core business and the associated closer orientation towards regional entities have been very well received by our clients. This will likely open up potential avenues for new business and hence additional premium income. Early successes are already evident in Latin America, the United States and Europe. Similarly, the investments that we had made in past years in the areas of cyber risks and renewables were rewarded with attractive premium growth in the year under review.

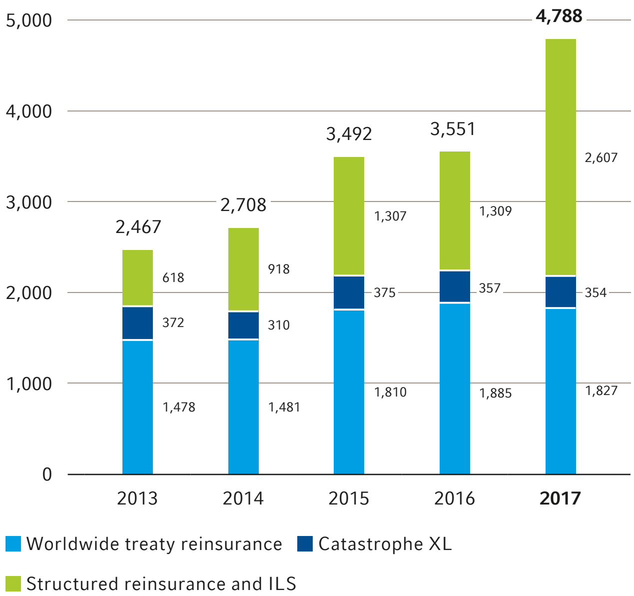
Despite the heavy losses incurred from natural disasters around the world, we are thoroughly satisfied with the development of our overall facultative portfolio in the 2017 financial year. In addition to the considerable expenditures on catastrophe losses, substantial losses were again recorded in industrial fire insurance across all regions. Despite these significant strains, our highly diversified portfolio – both geographically and in terms of lines of business – and our limited risk appetite for natural perils covers enabled us to post a merely modest underwriting deficit. The premium volume contracted owing to a portfolio transfer. The combined ratio of 103.7% was higher than in the previous year (95.6%). The operating profit (EBIT) retreated to EUR 39.7 million (EUR 95.0 million).

Global reinsurance

We combine all markets worldwide under global reinsurance with the exception of our target markets and specialty lines. This segment also encompasses global catastrophe business, the reinsurance of agricultural risks, Sharia-compliant retakaful business as well as structured reinsurance and insurance-linked securities.

The premium volume increased by 34.8% in the year under review to EUR 4,787.7 million (EUR 3,550.9 million). The combined ratio deteriorated from 97.1% to 98.2%. The operating profit (EBIT) improved from EUR 294.3 million to EUR 328.9 million.

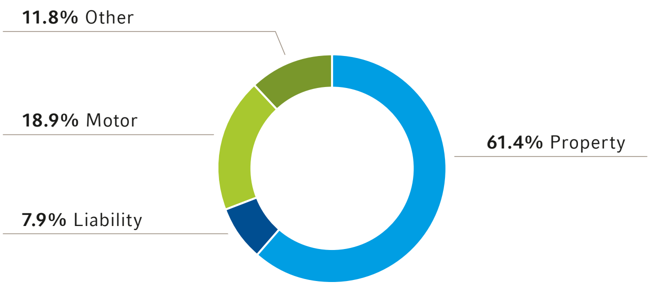
Property & Casualty reinsurance: Breakdown of gross written premium in global reinsurance M 18
in EUR million



Worldwide treaty reinsurance

We are satisfied with the development of our worldwide treaty reinsurance. Gross premium income contracted to EUR 1,826.7 million (EUR 1,885.0 million). The combined ratio was lower than in the previous year at 96.3% (103.9%). The operating profit (EBIT) surged from EUR 65.5 million to EUR 237.4 million.

Property & Casualty reinsurance: Breakdown of gross written premium in worldwide treaty reinsurance M 19



Asia-Pacific region

Despite the fiercely competitive business climate Hannover Re maintained its stable positioning in the Asia-Pacific region in the financial year just ended.

In Japan we consolidated our market position with modest premium erosion. Results were more pleasing than in 2016 because fewer natural catastrophe losses were reported in the year under review. Due to the absence of earthquake losses as well as moderate loss expenditure from the typhoon season, our Japanese business delivered a successful profit contribution. Although local reinsurance conditions again softened slightly, the reductions were less of a factor than they had been in the previous year.

In China we further cemented our market position as a local reinsurer. Thanks to our very good customer relationships and an innovative market presence, we were able to put our portfolio on a broader product basis despite increased competitive pressure. In terms of results, we improved significantly on 2016 owing to a lower incidence of natural perils events.

Along with China, the regions of Southeast and South Asia again proved to be the growth engines of the Asia-Pacific and delivered good results. At the same time, though, margins continue to be very squeezed – a state of affairs that is unlikely to improve in the coming years given the absence of significant large losses in 2017.

Following final approval of a branch licence for India at the end of 2016, our local permanent establishment commenced regular business operations with the Indian renewal season on 1 April 2017. The first financial year passed off in line with expectations. As a local reinsurer, Hannover Re is now very well positioned in the market to share in the opportunities offered by the Indian growth market. No significant loss events were recorded in the year under review.

We have had a presence in the markets of Australia and New Zealand for more than three decades and are positioned as the number three among Australian property and casualty reinsurers. Cyclone "Debbie", which hit the coastline of Queensland in the first quarter of 2017, brought stability to reinsurance prices in Australia. As a further factor, the after-effects of the earthquake on the South Island of New Zealand in November 2016 helped to keep prices on a good level in that market too in the year under review, with price increases even recorded in some instances.

Australia and New Zealand continue to be attractive natural catastrophe markets for global reinsurance capacities, and competition therefore remains fierce. We nevertheless succeeded in generating further premium growth at adequate conditions, in part also by expanding the primary insurance activities of our Inter Hannover branch.

South Africa

Our property and casualty reinsurance business in South Africa is produced by three companies: our subsidiary Hannover Reinsurance Africa Limited writes reinsurance in all lines. Compass Insurance is responsible for direct business generated through so-called underwriting management agencies (UMAs). Our third company, Lireas Holdings, holds interests in several of these UMAs. This enables us to comprehensively steer and control the business. Agency business forms the pillar of our activities in South Africa, although traditional reinsurance is also written in South Africa and other African nations.

As the year under review got underway the insurance market was still characterised by prevailing soft rates and conditions. In the course of the year, however, the region saw an increased claims incidence and hence appreciable losses for the (re)insurance industry. Special mention should be made here of the wildfires along the Garden Route. This development, combined with the large loss situation around the world, led to significant market hardening that already made itself felt in the renewals as at 1 July and 1 October 2017. We maintained the premium volume on a stable level overall.

In response to progressive digitalisation and the associated change in customer habits, we took various steps in the year under review with a view to supporting the development of insurtechs. We also participate as a reinsurer in further insurtech activities in the market. The purpose of our involvement in this area is to develop innovative products that are tailored to the mobile, networked world and offer consumers the option of a digital customer experience.

Latin America

Despite the competitive landscape, Hannover Re is very well positioned in Latin America and a market leader in some countries. The most important markets for our company are Brazil, where we are also present with a representative office, as well as Mexico, Argentina, Colombia and Ecuador. In view of the significant natural disasters in the year under review, it is our expectation that the soft market phase for Latin America and the Caribbean is now over.

Most Latin American markets showed very vigorous growth in the financial year just ended. Premiums in the primary sector are currently rising here on an annual basis – depending on the market – by between 5% and 15%. This is driven not only by the high inflation rates but also by the growing purchasing power of the middle class. The strongest demand for reinsurance covers is in the area of natural catastrophe risks, not only within individual markets but also increasingly across national borders.

The natural disasters in Latin America and the Caribbean resulted in significant losses, including for our company; see also the list of large losses on page 90. It is entirely possible that the frequency and severity of Caribbean hurricanes will increase in the future. With this mind, Hannover Re will pay closer attention to ensuring that sufficient coverage is purchased in these regions for natural catastrophe events and also that potential gaps in coverage, such as the flood risk, are closed. The aim here is to protect policyholders against possible insolvencies among primary insurers, which could throw a region's entire insurance system out of balance.

A large part of our premium volume nevertheless still derives from territories that are less affected by natural perils events, such as Argentina and Brazil. Both these markets are currently turning away from their previous restrictive approach to reinsurance regulation, and newly elected governments are also bringing an economic revival. We therefore expect to see an improved business environment in these countries.

Broadly speaking, we are satisfied with the development of our business in Latin America and the Caribbean.

Agricultural risks

We rank among our clients' preferred partners for agricultural covers and were therefore able to continue expanding our market position in the financial year just ended. In addition, we are increasingly involved in the development of original products. We entered into further cooperative arrangements with governments, development banks and international organisations in the year under review with a view to expanding protection for agricultural risks.

Rates and conditions largely held stable on the primary insurance side. Conditions in reinsurance business came under pressure in the established markets due to new players entering the sector.

We were successful in our efforts to further diversify our portfolio mix both geographically and in terms of lines of business. A contributory factor here, for example, was an enlarged share of business with insurance products for small farmers, predominantly in emerging and developing countries.

The performance of our agricultural risks business was satisfactory. The largest loss events in 2017 included the catastrophic forest fires in Chile at the start of the year and a drought in southern India. The continued improvement in the diversification of our portfolio adequately alleviated or offset the adverse effect of these losses.

Retakaful business

We write retakaful business, i. e. reinsurance transacted in accordance with Islamic law, worldwide. Our focus is currently on the Middle East, North Africa and Southeast Asia. We are represented by a subsidiary in Bahrain that writes this business. We also maintain a branch there with responsibility for traditional reinsurance in the Middle East. Our retakaful business has grown vigorously since we entered the sector in 2006 and we now enjoy a strong position in the market. Overall, we are satisfied with the development of business in the year under review. The insurance markets of the Middle East and North Africa are still posting healthy growth rates. The largest markets continue to be Turkey, the United Arab Emirates and Saudi Arabia.

The takaful and retakaful markets remained highly competitive – in part also owing to the entry of new market players. A further factor was the sustained low oil price and an associated slowdown in economic growth and in the willingness to invest in infrastructure projects. Rates therefore remained under pressure in 2017, as was particularly evident for treaties which had been spared any losses: we booked a decline of 10% to 15% in rates for loss-free treaties in property business; the rate level fell by 10% for energy treaties that had not incurred any losses. The (re)insurance of construction risks was also notable for predatory pricing and an excess supply of capacity.

In light of the soft state of the market we again wrote our business selectively in the year under review. Attractive business opportunities nevertheless opened up to us; by way of example, we received a growing number of requests for coverage of cyber risks. Overall, we booked single-digit percentage growth in our premium volume.

Catastrophe XL (Cat XL)

Hannover Re writes the bulk of its catastrophe business out of Bermuda, the worldwide centre of competence for this segment. In the interest of diversifying the portfolio, our subsidiary Hannover Re (Bermuda) Ltd. has also written risks in some of the specialty lines since 2013.

Worldwide natural catastrophe business continued to be driven by an excess supply of reinsurance capacity in the financial year just ended. For this reason, and due to the inflow of additional capacities from the ILS market, the business was fiercely competitive. The declining results posted by many reinsurers in the first quarter failed to bring about the trend reversal in rates that had been anticipated for the renewals as at 1 July 2017; the deterioration already observed in the renewals as at 1 January and 1 April 2017 was sustained. Particularly when it came to the renewals for catastrophe risks in Florida, the pressure on rates was ratcheted up still further.

On the claims side the most notable events in the first half of the year were Cyclone "Debbie" in Australia and a number of tornados in the United States. Yet these events merely prompted price adjustments on a local basis under the loss-impacted programmes. The second half of the year, by contrast, was dominated by a high incidence of natural disasters and massive losses. After a below-average hurricane season by multi-year standards in the United States and Caribbean, three events in quick succession – hurricanes "Harvey", "Irma" and "Maria" – inflicted an exceptionally heavy burden of losses on the insurance industry. The hurricanes caused an insured market loss of some EUR 100 billion. The total net strain for Hannover Re from these events was EUR 749.4 million. What is more, the two severe earthquakes in Mexico and forest fires in California also resulted in considerable loss expenditure. Against this backdrop we obtained appreciable rate increases for the treaty renewals as at 1 January 2018 that were not limited exclusively to the loss-impacted programmes.

The gross premium volume for our global catastrophe business was stable at EUR 354.2 million (EUR 357.2 million). The combined ratio deteriorated sharply to 121.1% (55.9%) on account of the large loss incidence. The operating profit (EBIT) came in at EUR -3.3 million (EUR 154.9 million).

Structured reinsurance and insurance-linked securities

Structured reinsurance

In this business transacted under the name Advanced Solutions, Hannover Re is one of the largest providers in the world for structured and tailor-made reinsurance solutions, the purpose of which – among other things – is to optimise the cost of capital for our ceding companies. In this area we also offer alternative reinsurance solutions that provide solvency relief or protect our clients against frequency losses. The modified purchasing habits of our customers led to rising demand in many countries for individually tailored reinsurance solutions. Both the number of contracts and the premium volume in structured reinsurance consequently rose sharply.

In keeping with our objective we continued to enlarge our customer base and acted on available opportunities in the year under review. We were able to further expand the quota share cessions already initiated in 2016 for capital management purposes in North America and Europe.

Insurance-linked securities (ILS)
The strong demand on the capital market for (re)insurance risks remains undiminished, particularly given the diversifying nature of such investments. The worldwide volume of newly issued catastrophe bonds reached a new record level of around USD 12 billion in 2017. The same is true of the entire ILS market, the volume of which is roughly USD 90 billion.

The ILS market shouldered a substantial portion of the catastrophe losses incurred in 2017, thereby underscoring the importance of ILS investors for disaster scenarios.

Hannover Re leverages the entire spectrum of opportunities offered by the insurance-linked securities market. On the one hand we take out reinsurance with ILS investors, while at the same time we transfer risks for our customers to the capital market as a service. This is done in the form of catastrophe bonds or through collateralised reinsurance, in the context of which our business partners on the investment side are principally specialised ILS funds. We are also active ourselves as an investor in catastrophe bonds.

In 2017 the volume of new exposures that we transferred to the capital market in the form of catastrophe bonds was in the order of USD 1 billion.

Under collateralised reinsurance programmes the investor assumes reinsurance risks that are normally collateralised in the amount of the limit of liability. Hannover Re stepped up its cooperation with selected fund managers in the year under review and generated attractive margins. It is also pleasing to note that we were able to further expand the transfer of life reinsurance risks to the capital market.

The key role played by the capital market in our purchasing of retrocession protection remains unchanged. Thus, for example, we were able to renew the protection cover for Hannover Re known as the “K cession” – a modelled quota share cession consisting of non-proportional reinsurance treaties in the property, catastrophe, aviation and marine (including offshore) lines that has been placed inter alia on the ILS market for 25 years now – at an increased level of roughly USD 600 million for 2017. In addition to the K cession we use the ILS market for other protection covers as well.

The gross premium volume in structured reinsurance and from ILS activities grew by 99.2% to EUR 2,606.8 million (EUR 1,308.7 million). The combined ratio stood at 97.7% (97.3%). The operating profit (EBIT) increased to EUR 94.8 million (EUR 73.9 million).

Life & Health reinsurance

- Successful implementations of our automated underwriting systems with thoroughly positive customer feedback
- Charge to income from parts of the US mortality portfolio acquired in 2009
- Financial solutions business delivers another record result (EBIT margin of 25.4%)

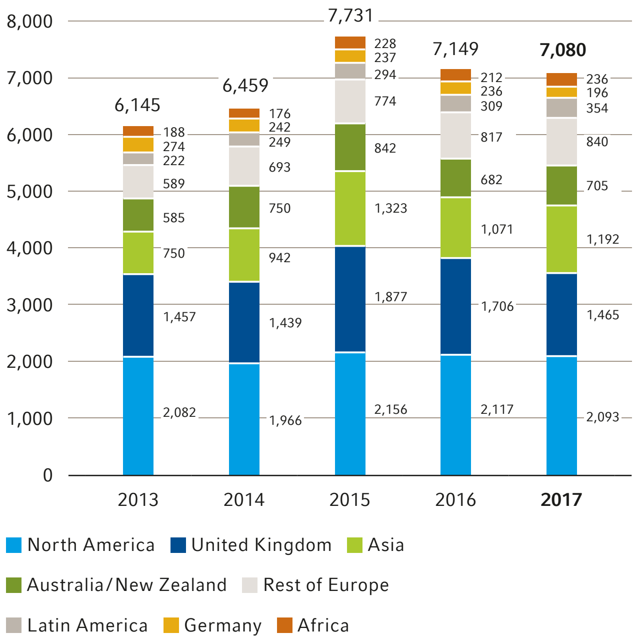
Life and health reinsurance contributed a substantial 40% (previous year: 44%) share of Group gross premium in the year under review. The business is characterised by enduring mutual commitments, and we attach great value to a partnership-based approach. Thanks to our global network and our know-how, we are able to drive new developments in the markets on a local basis. We nevertheless consider the profitability and quality of the generated business to be the absolute overriding priority and we act accordingly.

Total business
The numerous positive developments in our international life and health reinsurance portfolio were accompanied in the financial year just ended by individual parts of the business that fell short of our expectations. Essentially, this involved parts of the US mortality portfolio acquired in 2009. With a view to counteracting this development going forward, we are engaged in a dialogue with our customers in order to arrive at a viable solution for both parties. This is also connected with the recapture of a reinsurance treaty, which reduced the result by some EUR 45 million. The commutation was a targeted move since by taking this one-off charge to the balance sheet we will be able to avoid considerably higher economic losses in the future.

Life & Health reinsurance at a glance

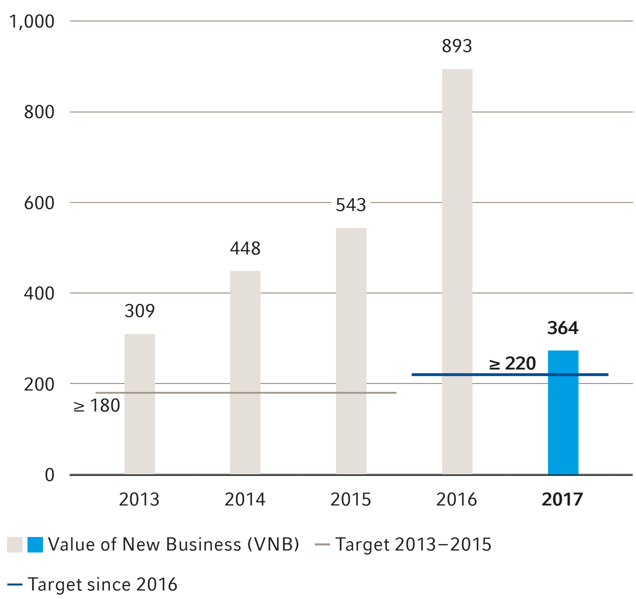
Breakdown of gross premium by markets M 20

in EUR million



Value of New Business (VNB) growth[1] M 21

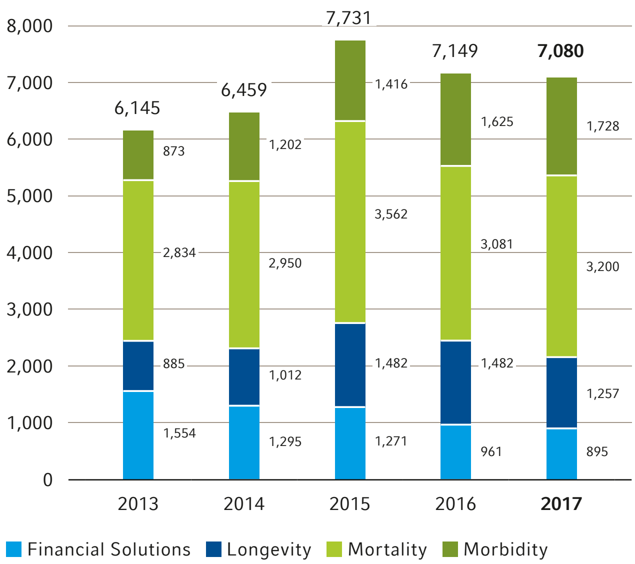
in EUR million



[1] Since 2016 based on Solvency II principles and pre-tax reporting; until 2015 MCEV principles (cost of capital already increased from 4.5% to 6% in 2015) and post-tax reporting

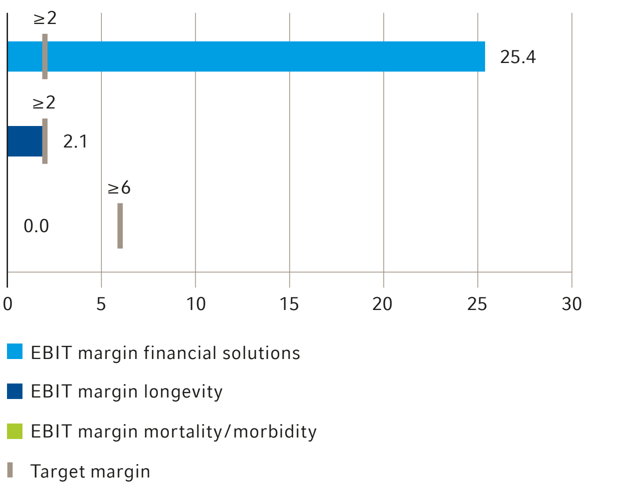
Breakdown of gross written premium by reporting categories M 22

in EUR million



EBIT-margin per reporting category vs. target margins 2017 M 23

in %



Key figures for Life & Health reinsurance M 24

in EUR million	2017	+/– previous year	2016[1]	2015	2014	2013
Gross written premium	7,079.6	-1.0%	7,149.0	7,730.9	6,458.7	6,145.4
Net premium earned	6,472.8	+0.7%	6,425.0	6,492.4	5,411.4	5,359.8
Investment income	560.6	-12.3%	638.9	709.2	614.2	611.5
Claims and claims expenses	5,666.8	+3.4%	5,480.3	5,459.0	4,636.2	4,305.7
Change in benefit reserve	0.6	-100.7%	(83.0)	101.1	28.6	146.5
Commissions	1,081.8	+5.8%	1,022.8	1,075.1	946.4	1,169.0
Own administrative expenses	210.7	+4.3%	202.0	197.3	175.7	156.7
Other income/expenses	170.6	+154.1%	67.1	35.9	25.1	(42.9)
Operating result (EBIT)	245.2	-28.6%	343.3	405.1	263.8	150.5
Net income after tax	172.6	-31.7%	252.9	289.6	205.0	164.2
Earnings per share in EUR	1.43	-31.7%	2.10	2.40	1.70	1.36
Retention	91.7%		90.4%	84.2%	83.9%	87.7%
EBIT margin[2]	3.8%		5.3%	6.2%	4.9%	2.8%

1 Restated pursuant to IAS 8 (cf. section 3.1 of the notes)
2 Operating result (EBIT)/net premium earned

One of the positive developments in the year under review was the commencement of business operations in February by our newly established composite branch in India. The book of life and health reinsurance business performed favourably despite exacting regulatory requirements and compliance standards. Numerous new customers have already been acquired and our expectations were more than fulfilled.

Insurers in our domestic German market are increasingly preoccupied with the capital adequacy and solvency ratios prescribed by Solvency II. Reinsurance covers offer one possible solution for meeting the required ratios. On the one hand, they are extremely flexible in their structuring, while at the same time being more cost-effective than a – potentially necessary – capital measure. Serving as a reliable partner, we have supported our customers in an advisory role with our expertise. More pressing than Solvency II issues, however, was the continuing need for financing solutions to fund the additional reserves required for life products promising guaranteed returns in excess of an official reference rate ("Zinszusatzreserve"). Potential covers for solvency relief were therefore dealt with only as a secondary priority. Along with these developments, demand for long-term care insurance and longevity reinsurance solutions remained strong in the international arena. Particularly in capital-intensive longevity business, a growing need for relief was evident among primary insurers.

In addition to risk-oriented (re)insurance topics, we devoted greater attention to the subject of digitalisation. The insurtech sector, in particular, received an enormous development boost in the financial year just ended. In many cases these are small start-up enterprises that are reliant on cooperations with experienced, cash-rich partners. For our company as a reinsurer, the benefits deriving from cooperations of this nature are based on the fact that the focus is normally on direct and uncomplicated contact with the customer/end consumer. Through this type of partnership we are able to optimally assist our customers, especially when it comes to addressing a generation that is not only tech-savvy but also attaches considerable importance to a healthy lifestyle. These groups are now virtually beyond the reach of traditional distribution channels in the life insurance industry and we therefore take an active part in developments in this field. We report on these activities at greater length under the heading "Underwriting services".

The total gross premium income booked in life and health reinsurance in the year under review amounted to EUR 7,079.6 million (EUR 7,149.0 million). This is equivalent to a decline of 1.0%; adjusted for exchange rate effects, a modest increase of 1.4% would have been recorded. The level of retained premium stood at 91.7% (90.4%). Net premium earned climbed 0.7% to EUR 6,472.8 million (EUR 6,425.0 million), corresponding to growth of 3.0% adjusted for exchange rate effects.

In view of the unchanged low level of interest rates, investment income in life and health reinsurance contracted as expected and totalled EUR 560.6 million (EUR 638.9 million). The share of the income attributable to assets under own management amounted to EUR 343.5 million (EUR 330.8 million), while the contribution made by income from securities deposited with ceding companies came in at EUR 217.1 million (EUR 308.1 million).

The operating result (EBIT) in life and health reinsurance reached a level of EUR 245.2 million (EUR 343.3 million). This decline of 28.6% can be attributed in large measure to the poorer-than-expected performance of the US mortality portfolio and the aforementioned one-off effect. Group net income for life and health reinsurance retreated accordingly to EUR 172.6 million (EUR 252.9 million).

We provide below an overview of developments in life and health reinsurance, split into our reporting categories, as well as a description of our extensive range of services under the heading "Underwriting services". The breakdown of the reporting categories is structured according to our internal risk management system and hence subdivided into the sections "Financial solutions" and "Risk solutions". The category of risk solutions is further differentiated according to the biometric risks of longevity, mortality and morbidity.

Financial Solutions

In our financial solutions business we concentrate on reinsurance solutions geared to optimising the solvency, liquidity and capital position of our customers. These forms of reinsurance are highly diverse and individually structured because they are always tailored to the customer's needs. The decisive differentiating feature is that the customer's primary motivation is not exclusively the coverage of biometric risks, but rather the protection of its financial and balance sheet position.

We can draw on long-standing expertise and we write financial solutions business with considerable success worldwide – particularly in the United States. This was again evident in the financial year just ended: we were exceptionally satisfied with the expansion of our business in the US, which delivered a clearly positive result this year and will continue to do so in the years ahead. Customer surveys rank us among the market leaders in the US and have named us number one in the field of financial solutions.

In Germany a fundamental interest in Solvency II topics was evident on the primary insurance market. The first-time publication of the Solvency and Financial Condition Reports nevertheless attracted only scant attention. It remained the case that demand for financing solutions to help fund the additional interest rate reserves was more pressing than Solvency II issues. We stood by our customers in this regard as a reliable partner, using our expertise to identify possible solutions.

In addition, we observed pleasing business potential in connection with Solvency II in the Scandinavian markets. In the United Kingdom, too, it was evident that the topic of financial solutions has become more important to our primary insurance customers and should generate corresponding demand for reinsurance.

Gross premium income for the financial solutions reporting category fell by 6.9% to EUR 895.1 million (EUR 961.2 million). This corresponds to a share of 12.6% of the total gross premium booked in life and health reinsurance. The operating result (EBIT) came in at a very pleasing EUR 223.8 million (EUR 168.0 million).

Longevity

In the longevity reporting category we group together all reinsurance business where the primary risk covered is the longevity risk. This consists principally of traditional annuity policies, pensions blocks taken out for new business and so-called enhanced annuities, which guarantee annuitants with a pre-existing condition a higher annuity payment for their remaining shortened life expectancy. By far the bulk of our portfolio is made up of business that is already in the pay-out phase.

In terms of volume, the United Kingdom continues to be our most important and by far the most mature market for longevity products. Despite intense competition, we successfully completed reinsurance transactions that provide customers with solvency relief in addition to coverage of the longevity risk and we have also received positive feedback from the market in response to our simply structured, traditional longevity solutions. The uncertainty surrounding the consequences of the United Kingdom leaving the European Union was palpable in the year under review and further complicated the business environment – on top of the already existing pricing and competitive pressures. Most notably, the pressure of competition on the primary insurance and reinsurance side had been growing steadily as a consequence of the change in the legal situation that came into effect in April 2015 (relaxation of the rules on compulsory retirement). On the primary side this has now led to consolidation efforts, which are expected to open up further new business opportunities for our company as a reinsurer.

Internationally, the longevity market has continued to evolve favourably: it is particularly gratifying to report that we have concluded our first large treaty in Scandinavia. Along with deferred pension liabilities this also covers annuities in the pay-out phase. What is more, customers in Australia, Asia and Europe have expressed interest and in some cases signalled a concrete need for protection against longevity risks. A key factor in the increased demand worldwide was the high solvency-based capital requirements imposed on insurers under the various local supervisory regimes. Where longevity risks are involved, it is frequently the case that very high reserves need to be held by primary insurers to cover pension commitments that are often still in the distant future. As a robustly capitalised reinsurer, this is where we can provide the necessary solvency relief.

The gross premium for longevity business contracted by 15.2% in the year under review to EUR 1,256.9 million (EUR 1,482.4 million). The operating result (EBIT) reached a level of EUR 20.0 million (EUR 25.7 million).

Mortality and Morbidity

In the global (re)insurance industry it is standard practice for the mortality and morbidity risk to form a common element of one and the same business relationship, and in some cases both risks are even covered under one reinsurance treaty. In our reporting we therefore consolidate the profit contributions of these two reporting categories and provide below merely an overview of specific significant developments of the past year affecting our mortality and morbidity business.

Mortality

Mortality-exposed business forms the core of traditional life and health reinsurance and, in terms of premium volume, still accounts for the lion's share of our total premiums in this business group. We offer our customers reinsurance protection for the risk that the actually observed mortality may diverge negatively from the originally expected mortality, i. e. that people do not live as long as anticipated.

The life (re)insurance market in Germany was characterised in the financial year just ended by the protracted low interest rate level and especially the associated discussion around the future viability of traditional life insurance products. In the context of these developments even larger insurers have contemplated the possible disposal of their life insurance portfolios. With a view to enabling them to offer policyholders innovative new insurance solutions compared to traditional life insurance products, we are engaged in a dialogue with our customers and are willing to provide crucial support with this development.

In the rest of Europe the situation varied from market to market. Heavy pricing pressure and competition were the dominant factors in the United Kingdom, giving rise to an extremely competitive environment in which no appreciable changes could be pushed through. In the Scandinavian markets, on the other hand, we were able to preserve the robust positon that we have enjoyed in recent years. Business developed favourably overall. Customer feedback was thoroughly positive, especially in connection with the implementation of our automated underwriting system hr | ReFlex. We were similarly satisfied with the development of our business in Southern Europe and Latin America. In Asia and Australia our expectations were satisfied in equal measure. Even though competition has intensified and market requirements have become more exacting – particularly in Australia, for example, following mandatory adoption of the Code of Practice to improve protection for end customers –, we were satisfied on the whole with the achieved growth.

Another important and large market for our company is US mortality business. We have systematically expanded this business since 2009 and offer the entire spectrum of mortality-oriented reinsurance solutions. In the year under review part of our in-force portfolio fared more poorly than expected, significantly impacting the result. These losses are based in part on reserve increases and business recaptures, which will ensure an improved experience going forward and thereby prevent losses over the long term. Detached from this development, the volume of new US business performed in line with our expectations, although this was not sufficient to offset the adverse effects associated with the in-force portfolio – as reflected in the results.

Gross premium for mortality business rose by 3.9% to EUR 3,200.1 million (EUR 3,080.9 million). Altogether, it contributed 45.2% of the total gross premium income booked in life and health reinsurance (EUR 7.1 billion).

Morbidity

Within the morbidity reporting category we cover business centred around the risk of deterioration in a person's state of health due to disease, injury or infirmity. A hallmark of this business is the wide range of possible combinations of different covered risks, including for example strict (any occupation) disability, occupational disability and various forms of long-term care insurance. A dedicated team of staff equipped with both specialist expertise and access to our network of business centres stands ready to assist with transactions of this type. In this way, our customers are able to optimally benefit from our global know-how on a local basis.

In Germany, the adoption at the beginning of 2017 of a revised benefit trigger in long-term care (LTC) insurance as part of the statutory social security scheme failed to bring about any appreciable market upturn. On the contrary, the market for LTC covers – which was already very small – contracted. It is therefore all the more pleasing that one of our largest customers – which uses our own LTC tables – was one of the few market players to express considerable satisfaction with the development of its new business. We see this as confirmation that we took the right decision when we moved to refine our LTC tables.

In principle, we are satisfied with the development of our portfolio in the countries of Southern and Eastern Europe, given that for the most part they fared positively as anticipated. In Northern Europe, too, we preserved our strong market position. The markets of the Middle East proved to be highly competitive, although in this region we were successful in rolling out our automated underwriting system hr | ReFlex with a number of customers. This delivered a crucial competitive advantage by enabling our customers to expand their product range to include risk-oriented covers such as strict (any occupation) disability and critical illness insurance.

The market for group business proved to be comparatively competitive, especially in Hong Kong. Despite this, we successfully renewed our portfolio thanks to our disciplined underwriting approach and thereby consolidated our market position. In other areas of Asia and Latin America we similarly recorded a positive development and booked growth in line with our expectations.

Morbidity business grew by 6.3% in the financial year just ended to EUR 1,727.5 million (EUR 1,624.6 million).

Gross premium for our total mortality and morbidity portfolio increased by 4.7% to EUR 4,927.6 million (EUR 4,705.5 million). The operating result (EBIT) for the two reporting categories was sharply lower at EUR 1.4 million (EUR 149.5 million).

Underwriting services

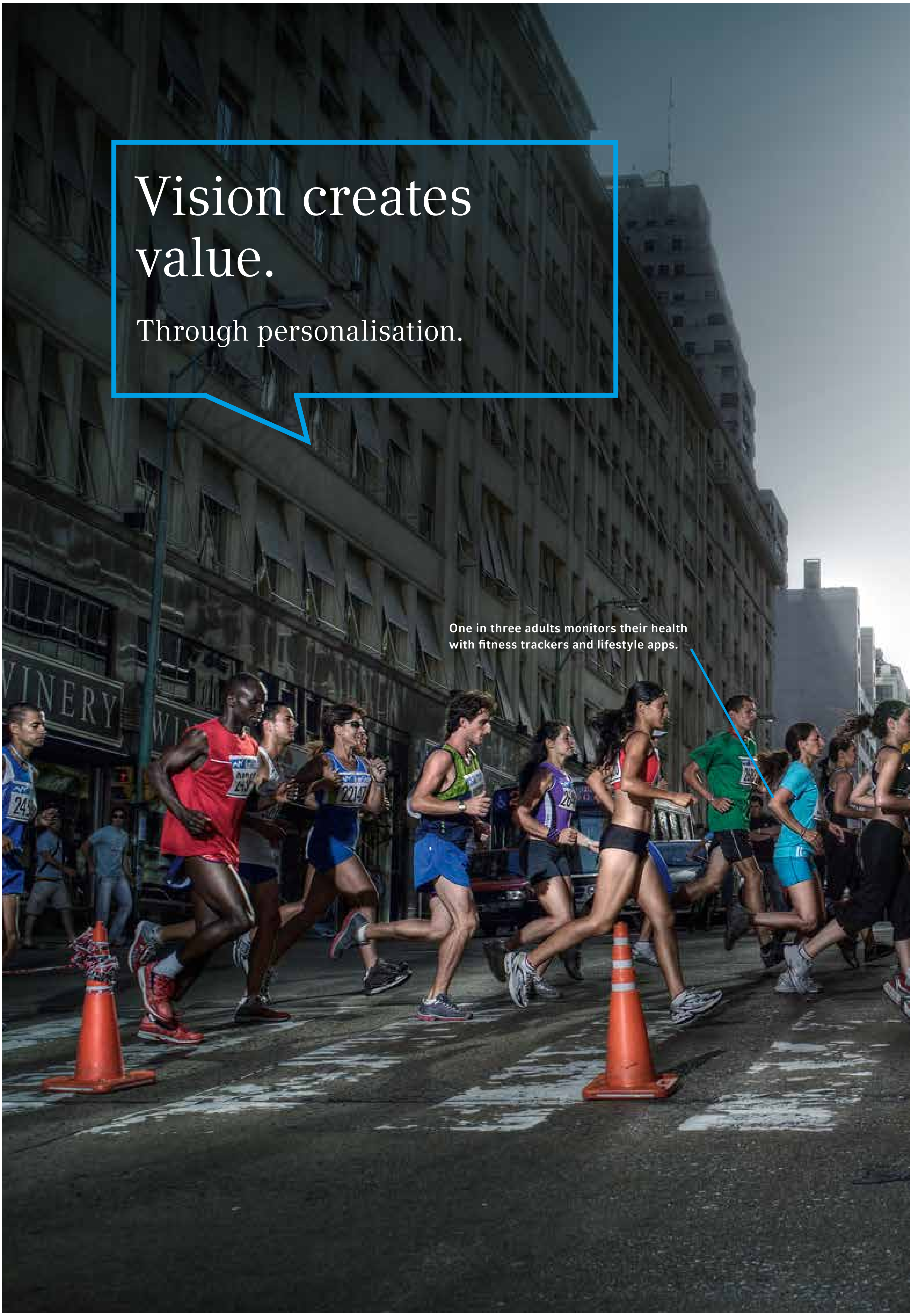
A core focus of our underwriting services is on our automated underwriting systems and providing the associated support for our customers that goes beyond pure risk transfer. In the year under review it was again evident that these services, in particular, cement our long-term business relationships with our customers and deliver a competitive advantage.

Process automation was a dominant topic throughout the entire (re) insurance industry. With the aid of our underwriting systems, our customers are able to automate and structure the underwriting process so as to ensure that their end customers immediately receive an offer tailored to their needs and can at once arrive at a decision. We were thoroughly satisfied with the development of our underwriting system hr | Quirc, which customer surveys carried out last year in South Africa crowned as the most widely used system in the market and the one with the highest satisfaction rates. In addition to South Africa, we successfully launched the system in other African countries as well as the Middle East. Not only that, customers from Asia and Australia increasingly expressed their interest as well. Similarly, we are exceptionally satisfied with the development and progressive international roll-out of our new and even more state-of-the-art system hr | ReFlex. The number of implementations rose sharply in the year under review, enabling us to boost our market penetration throughout Europe, in particular, and in the United States as well as to improve our name recognition in other markets such as those of Latin America. We enjoyed a consistently positive response from customers; what is more, customer surveys showed that hr | ReFlex is generating extraordinarily high rates of satisfaction, especially in the US and Northern Europe.

Along with these activities, we intensified the dialogue and interaction with (online) platforms specialised in insurance solutions as part of our drive towards digitalisation. Those policyholders who value their health and quality of life and would like to always keep track of their medical and biological data with the aid of wearables (smart electronic devices such as a watch that can be worn on the user's arm) constitute the ideal target group for insurance products combined with lifestyle and wellness elements. Cooperative ventures in the so-called insurtech sector establish a solid starting point for addressing the needs of these (mostly) younger generations and raising their awareness of insurance offerings. With a view to adding impetus to this trend, we have – among other things – participated in a South African company specialising in the storage and analysis of vital signs (such as pulse, blood pressure, etc.) that are captured and transmitted by a wearable. Our partner also has the medical know-how needed to analyse these data. Sound assessments and analyses of this type can be superbly combined with insurance products and are therefore of particular interest to health-conscious policyholders.

Furthermore, we were highly successful in implementing our underwriting system hr | ReFlex in the US market in cooperation with a US insurtech partner. Online and mobile distribution channels are used to sell life insurance directly to end consumers. In the US life insurance market policies have hitherto generally tended to be sold by traditional means through agents. As a result, the broad middle class does not have sufficient insurance protection because they are not addressed by agents. The innovative combination of online insurance sales with our automated underwriting system hr | ReFlex delivers a cost-efficient and flexible solution for end consumer and provider alike.

All in all, the focus of all our activities – taking into consideration our corporate objectives – is on the needs of our customers. We aspire to be a long-term and expert partner in every situation. Consequently, along with the developments already discussed, we have also explored the more exacting capital requirements associated with, for example, Solvency II in Europe and C-ROSS in China, which are proving to be an ever greater strain for primary insurers. As a reinsurer, we traditionally assume the biometric risks of mortality, longevity and morbidity. With minority interests in two companies specialising in the assumption of capital market risks, we have closed this gap and thereby ensured that we are also able to meet this need on the part of primary insurers. In the year under review we were already able to realise some initial solutions in this area.


Vision creates value.
Through personalisation.
One in three adults monitors their health with fitness trackers and lifestyle apps.

Together with our partners, we develop innovative insurance models that provide personalised advice and insurance services based on data from lifestyle apps.

Primary insurers utilise lifestyle apps to increase customer retention and encourage users to consider preventive healthcare resulting in reduced insurance costs.

Investments

- Another very good investment performance despite the challenging environment
- Alternative investments and real estate more than offset the low interest rate level
- Disposal of listed equities
- Return on investment clearly beats target at 3.8%

We are thoroughly satisfied with the development of our investments. While the year under review was again a challenging one in view of the sustained low interest rate level and global economic movements driven by a range of uncertainties and risks, we had virtually no impairments to recognise in our equity portfolio or fixed-income securities. Our exposures to the credit risk and emerging markets were also rewarded with a good performance in these sectors and delivered stable results. This is similarly true of our private equity and real estate holdings, the income from which – thanks to their higher weighting in our portfolio – helped to push our ordinary investment income (excluding interest on funds withheld and contract deposits) to a very gratifying EUR 1,289.0 million, a level that once again improved on the previous year (EUR 1,162.0 million). Despite the difficult interest rate environment, our returns on fixed-income securities even came in slightly higher than in the previous year.

Net realised gains on disposals totalled EUR 377.1 million (previous year: EUR 206.3 million) and can be attributed in part to regrouping moves in the context of regular portfolio maintenance but primarily to the liquidation of our portfolio of non-strategic listed equities at the end of the third quarter. We report further on this in the following section "Financial position and net assets" under the subsection "Investments" on page 52 et seq.

We recognise a derivative for the credit risk associated with special life reinsurance treaties (ModCo) under which securities deposits are held by cedants for our account; the performance of this derivative in the year under review gave rise to positive fair value changes recognised in income of EUR 3.7 million (EUR 0.5 million). Altogether, the positive changes in the fair values of our financial assets recognised at fair value through profit or loss amounted to EUR 38.6 million (EUR 26.1 million). The principal items recognised here are various derivative financial instruments relating to the technical account or taken out as currency or interest rate hedges as well as fixed-income assets for which the fair value option provided by IAS 39 was applied.

Impairments and depreciation totalling EUR 71.9 million (EUR 76.3 million) were taken. The impairments were attributable in an amount of EUR 15.6 million (EUR 0.0 million) to two real estate properties in the United States. Equities accounted for an amount of EUR 3.7 million (EUR 30.1 million). Impairments of EUR 8.4 million (EUR 11.7 million) were recognised on alternative investments. The write-downs taken on fixed-income securities amounted to just EUR 0.3 million (EUR 0.7 million). Impairments were also taken on our portfolio of equity investments in an amount of EUR 10.4 million (EUR 1.9 million). Scheduled depreciation on directly held real estate rose to EUR 31.0 million (EUR 28.9 million), a reflection

Investment income M 25

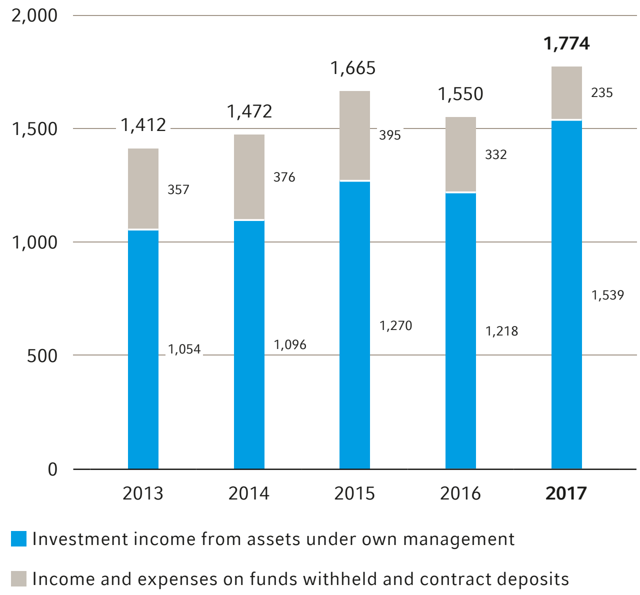
in EUR million	2017	+/– previous year	2016	2015	2014	2013
Ordinary investment income[1]	1,289.0	+10.9%	1,162.0	1,253.4	1,068.4	1,041.3
Result from participations in associated companies	16.0	+75.9%	9.1	19.2	1.0	12.5
Realised gains/losses	377.1	+82.8%	206.3	135.8	182.5	144.2
Appreciation	0.9	+210.5%	0.3	0.6	0.1	0.3
Depreciation, amortisation, impairments[2]	71.9	-5.8%	76.3	38.7	27.7	19.4
Change in fair value of financial instruments[3]	38.6	+48.0%	26.1	0.9	(33.3)	(27.1)
Investment expenses	110.8	+1.5%	109.1	101.2	95.3	97.3
Net investment income from assets under own management	1,539.0	+26.3%	1,218.3	1,270.1	1,095.8	1,054.5
Net investment income from funds withheld and contract deposits	234.9	-29.3%	332.1	395.0	376.1	357.3
Total investment income	**1,773.9**	**+14.4%**	**1,550.4**	**1,665.1**	**1,471.8**	**1,411.8**

1 Excluding income and expenses on funds withheld and contract deposits
2 Including depreciation/impairments on real estate
3 Portfolio at fair value through profit or loss and trading

of the further increase in our involvement in this sector. These write-downs contrasted with write-ups of just EUR 0.9 million (EUR 0.3 million).

Despite the challenging interest rate environment, we were able to generate investment income of EUR 1,773.9 million that was clearly in excess of the comparable period (EUR 1,550.4 million) on the back of stronger ordinary income from real estate and private equity as well as higher realised gains. Income from assets under own management accounted for EUR 1,539.0 million (EUR 1,218.3 million), producing an average return (including effects from ModCo derivatives) of 3.8%. We thus clearly beat the 2.7% goal that we had originally set ourselves for the full financial year and comfortably outperformed the minimum target return that we had revised upwards to 3.0% in the fourth quarter. This can be attributed first and foremost to the substantial gains realised on the liquidation of our portfolio of non-strategic listed equities, but was also made possible by the pleasing ordinary income booked from private equity and real estate funds, which came in higher than anticipated.

Development of investment income **M 26**
in EUR million



Financial position and net assets

- Risk-commensurate investment policy
- Highly diversified investment portfolio
- Asset allocation adjusted to safeguard the return
- Equity base remains robust

Investment policy

Hannover Re's investment policy continues to be guided by the following core principles:

- generation of stable and risk-commensurate returns while at the same time maintaining the high quality standard of the portfolio
- ensuring the liquidity and solvency of Hannover Re at all times
- high diversification of risks
- limitation of currency exposure and maturity risks through matching currencies and maturities

With these goals in mind we engage in active risk management based on balanced risk/return analyses. To this end we adhere to centrally implemented investment guidelines and incorporate insights gained from dynamic financial analysis. They form the basis for investment ranges which are specified in light of the prevailing state of the market and the requirements on the liabilities side and within which operational management of the portfolio takes place. These measures are intended to safeguard the generation of an appropriate level of return. In so doing, we pay strict attention to compliance with our clearly defined risk appetite, which is reflected in the risk capital allocated to the investments and constitutes the foundation for the asset allocation of the entire Hannover Re Group and the individual portfolios. Our ability to meet our payment obligations at all times is also ensured in this way. Within the scope of our asset/liability management (ALM) the allocation of investments by currencies and maturities is determined by the technical liabilities. The modified duration of our bond portfolio is geared largely to the technical liabilities.

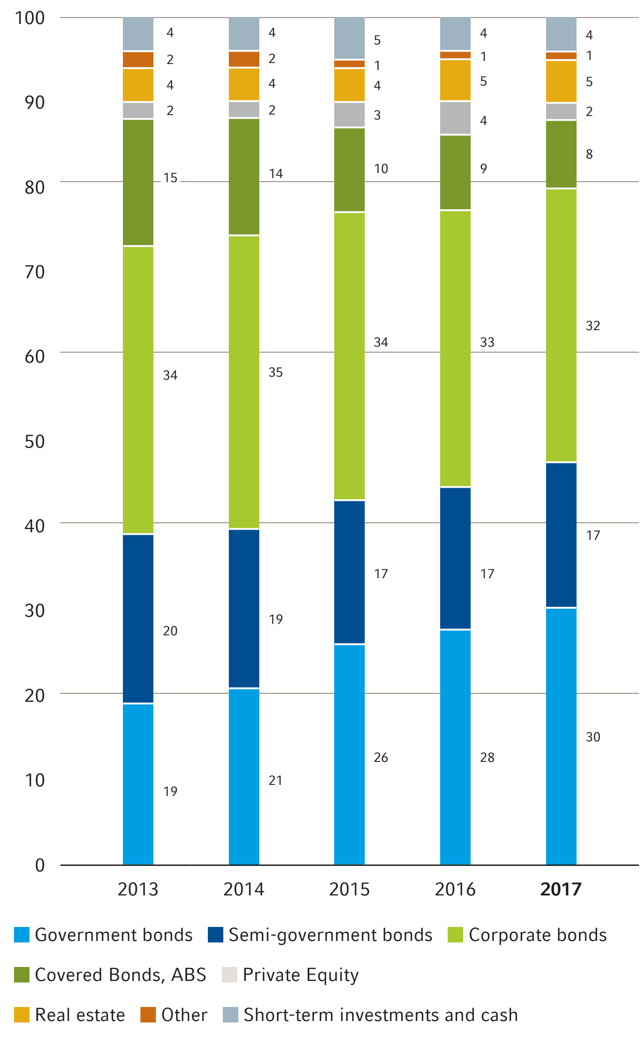
By adjusting the maturity pattern of our fixed-income securities to the expected payment patterns of our liabilities we reduce the economic exposure to the interest rate risk. In the current reporting period this gave rise to a broadly neutral modified duration of our bond portfolio, which stood at 4.8 (previous year: 5.0) as at 31 December 2017. Through active and regular management of the currency spread in our fixed-income portfolio we bring about extensive matching of currencies on the assets and liabilities sides of the balance sheet, as a consequence of which fluctuations in exchange rates have only a limited effect on our result.

As at year-end 2017 we held 30.1% (30.2%) of our investments in euro, 45.5% (48.3%) in US dollars, 8.2% (6.9%) in pound sterling and 5.9% (5.1%) in Australian dollars.

Investment portfolio M 27

in EUR million	2017	2016	2015	2014	2013
Funds withheld	10,903	11,844	13,990	15,919	14,343
Investments under own management	40,057	41,793	39,347	36,228	31,875
Total	**50,960**	**53,637**	**53,337**	**52,147**	**46,219**

Breakdown of investments under own management M 28
in %



Investments

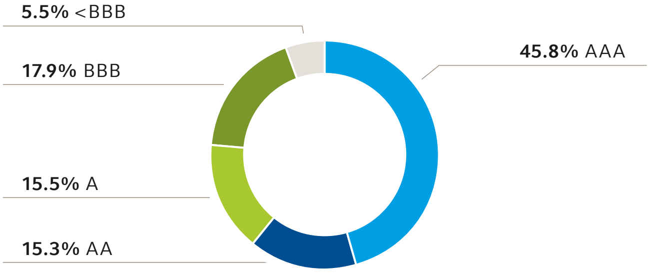
Our portfolio of assets under own management amounted to EUR 40.1 billion, a level lower than at the end of the previous year (31 December 2016: EUR 41.8 billion). This decline primarily reflects exchange rate effects – especially the strength of the euro against the US dollar. These were offset to some extent by the pleasing operating cash flow.

In response to the challenging interest rate environment we had already taken steps in the previous year to adjust the allocation of our investments to individual classes of securities such that we further enlarged our holding of fixed-income securities rated BBB or lower while at the same time increasing the proportion of government bonds in our portfolio. In this way we can achieve increased liquidity of the portfolio and generate continued stable returns, while maintaining the overall risk level of our fixed-income portfolio virtually unchanged. We continued with this regrouping in the year under review. In addition, we reduced the proportion of covered bonds.

At the end of the third quarter we responded to the hurricane events in the United States and the Caribbean as well as the earthquakes in Mexico by liquidating our holdings of non-strategic listed equities and equity funds. In so doing, we took advantage of the favourable state of the market, reduced our general risk position and freed up capital for possible risk allocations. We also further increased slightly the share attributable to real estate as part of the strategic expansion of this asset category. In all other asset classes we made only minimal changes in the context of regular portfolio maintenance.

The portfolio of fixed-income securities excluding short-term assets contracted to EUR 34.3 billion (EUR 35.5 billion). This decline can similarly be attributed principally to exchange rate effects. Hidden reserves for available-for-sale fixed-income securities, which are allocable to shareholders' equity, totalled EUR 706.2 million (EUR 728.2 million) on balance. This reflects the yield increases observed in the course of the reporting period, especially in the area of EUR- and GBP-denominated sovereign bonds and debt securities issued by semi-governmental entities, which were offset to some extent by lower risk premiums on corporate bonds. As to the quality of the bonds – measured in terms of rating categories – the proportion of securities rated "A" or better remained on a consistently high level as at year-end at 76.6% (77.6%).

Rating of fixed-income securities M 29



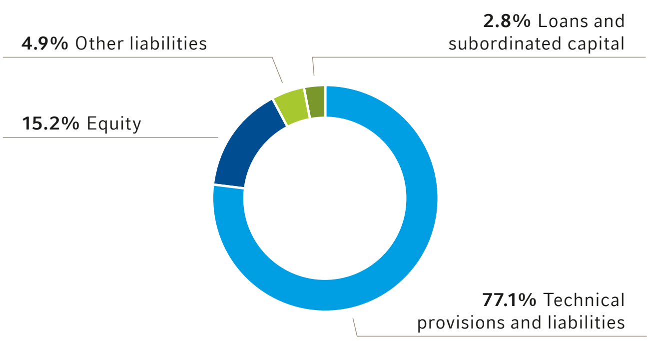
Holdings of alternative investment funds increased slightly overall. As at 31 December 2017 an amount of EUR 776.3 million (EUR 722.4 million) was invested in private equity funds; a further EUR 818.3 million (EUR 750.7 million) was attributable predominantly to investments in high-yield bonds and loans. In addition, altogether EUR 385.0 million (EUR 390.7 million) was invested in structured real estate investments. The uncalled capital with respect to the aforementioned alternative investments totalled EUR 1,201.9 million (EUR 1,096.4 million).

Furthermore, we made the most of market opportunities available to our US real estate portfolio by both selling and acquiring one office building. Our real estate portfolios in Asia and Eastern Europe were similarly enlarged. In Germany, on the other hand, we acted on sales opportunities for two of our properties, although we also consolidated our portfolio through the acquisition of a new property. Our real estate allocation consequently rose slightly. It currently stands at 5.3% (4.6%). As at the end of the year under review we held a total amount of EUR 1.8 billion (EUR 1.7 billion) in short-term investments and cash. Funds withheld amounted to EUR 10.9 billion (EUR 11.8 billion).

Analysis of the capital structure

In terms of amount, the technical provisions and liabilities are of course by far the most significant item in our balance sheet. Further elements are equity and equity substitutes, which help to substantially strengthen our financial base and optimise our cost of capital. The following chart shows our capital structure as at 31 December 2017, broken down into percentages of the balance sheet total.

Capital structure as at 31 December 2017 M 30



The technical provisions and liabilities shown above, which include funds withheld/contract deposits and reinsurance payable, make up 77.1% (77.0%) of the balance sheet total and are more than covered by our investments, (assets-side) funds withheld/contract deposits, accounts receivable and reinsurance recoverables.

The equity including non-controlling interests at 15.2% (15.3%) of the balance sheet total as well as the loans and – especially – subordinated capital at an altogether unchanged 2.8% (2.8%) of the balance sheet total represent our most important sources of funds.

We ensure that our business is sufficiently capitalised at all times through continuous monitoring and by taking appropriate steering actions as necessary. For further information please see the following section "Management of policyholders' surplus".

Management of policyholders' surplus

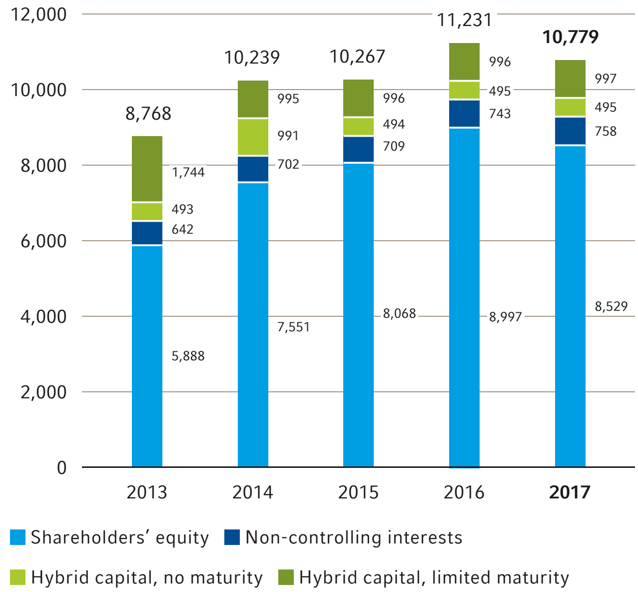
A key strategic objective of Hannover Re is long-term capital preservation. Just as in previous years, we issued hybrid capital as an equity substitute in order to keep the cost of capital on a low level. The policyholders' surplus is an important management ratio in the context of Hannover Re's comprehensive capital management. The total policyholders' surplus is defined as follows:

- shareholders' equity excluding non-controlling interests, composed of the common shares, additional paid-in capital, other comprehensive income and retained earnings,
- non-controlling interests and
- hybrid capital used as an equity substitute, which takes the form of subordinated bonds.

The policyholders' surplus totalled EUR 10,778.5 million (EUR 11,231.4 million) as at the balance sheet date. The decrease was due principally to the reduction in foreign currency gains and losses recognised in equity. Retained earnings, on the other hand, increased by EUR 356.1 million to EUR 6,984.4 million (EUR 6,628.3 million) on the back of the good Group net income booked in the year under review. Overall, the policyholders' surplus consequently declined by 4.0%.

Hannover Re uses "Intrinsic Value Creation" (IVC) as its central value-based management tool. As part of this methodology, we apply the principles of economic allocation of equity and efficient use of debt as an equity substitute in order to achieve the lowest possible weighted cost of capital. This concept as well as the objectives and principles in accordance with which we conduct our enterprise management and capital management are described in greater detail in our remarks on value-based management on page 16 et seq. of this report.

Development of policyholders' surplus M 31
in EUR million



In its capital management Hannover Re is guided by the requirements and expectations of the rating agencies with an eye to its targeted rating. Furthermore, while making appropriate allowance for business policy considerations and factors that influence market presence, the allocation of capital to the Group's operational companies is based upon the economic risk content of the business group in question. The Group companies are also subject to national capital and solvency requirements. All Group companies met the applicable local minimum capital requirements in the year under review. Adherence to these capital requirements is continuously monitored by the responsible organisational units on the basis of the latest actual figures as well as the corresponding planned and forecast figures. If, despite the capital allocation mechanisms described above, a scenario occurs in which there is a danger of minimum capital requirements being undershot, suitable options are immediately discussed and measures set in motion to counteract such an eventuality. From the Group perspective we manage Hannover Re's solvency using our internal capital model (cf. "Opportunity and risk report", page 79 et seq.).

Group shareholders' equity

Compared to the position as at 31 December 2016, Group shareholders' equity fell in the year under review by EUR 454.0 million, equivalent to 4.7%, to EUR 9,286.6 million. After adjustment for non-controlling interests, it declined by EUR 468.8 million to EUR 8,528.5 million. The book value per share decreased accordingly by 5.2% to EUR 70.72. The changes in shareholders' equity were shaped chiefly by the following developments:

The foreign currency gains and losses contracted by EUR 742.6 million from EUR 680.1 million to EUR -62.5 million as a consequence of exchange rate movements of foreign currencies against the euro in the financial year. The decrease in the reserve for currency translation adjustments resulted principally from the depreciation of the US dollar and translation of the shareholders' equity of those subsidiaries whose equity is denominated in USD.

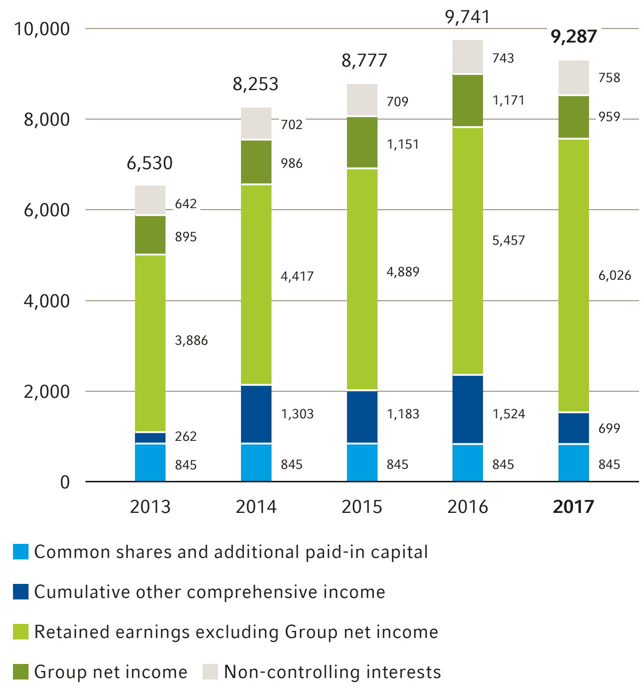
Net unrealised gains on investments stood at EUR 818.3 million, a drop of EUR 85.8 million compared to the beginning of the year under review. This reflected the yield increases observed in the reporting period, especially in the area of EUR- and GBP-denominated sovereign bonds and debt securities issued by semi-governmental entities, which were offset to some extent by lower risk premiums on corporate bonds.

Non-controlling interests in shareholders' equity increased by EUR 14.8 million to EUR 758.1 million as at 31 December 2017. The bulk of this – in an amount of EUR 702.4 million – is attributable to the non-controlling interests in E+S Rückversicherung AG.

The Group net income for 2017 attributable to the shareholders of the Hannover Re Group amounted to EUR 958.6 million (EUR 1,171.2 million). The non-controlling interest in the profit generated in the year under review totalled EUR 86.0 million (EUR 55.2 million).

Development of Group shareholders' equity M 32

in EUR million



Financing and Group debt

In addition to the financing effect of the changes in shareholders' equity described above, debt financing on the capital market is a significant component of Hannover Re's financing. It was essentially composed of subordinated bonds issued to ensure lasting protection of our capital base – in part also in observance of rating requirements. The total volume of debt and subordinated capital stood at EUR 1,742.1 million (EUR 1,804.2 million) as at the balance sheet date.

Our subordinated bonds supplement our equity with the aim of reducing the cost of capital and also help to ensure liquidity at all times. As at the balance sheet date altogether three subordinated bonds had been placed on the European capital market through Hannover Rück SE and Hannover Finance (Luxembourg) S.A.

The following table presents an overview of the amortised cost of the issued bonds.

Amortised cost of our subordinated bonds M 33

in EUR million	Issue date	Coupon in %	2017	2016
Hannover Finance (Luxembourg) S.A., subordinated debt, EUR 500 million; 2010/2040	14.9.2010	5.75	499.1	498.9
Hannover Finance (Luxembourg) S.A., subordinated debt, EUR 500 million; 2012/2043	20.11.2012	5.00	497.8	497.5
Hannover Rück SE, subordinated debt, EUR 500 million; 2014/undated	15.9.2014	3.375	495.0	494.5
Total			**1,492.0**	**1,490.8**

Several Group companies have also taken up long-term debt – principally in the form of mortgage loans – amounting to EUR 250.1 million (EUR 313.4 million).

For further explanatory information please see our remarks in the notes to this report, section 6.12 "Debt and subordinated capital", page 222 et seq., and section 6.13 "Shareholders' equity and treasury shares", page 224.

Various financial institutions have provided us with letters of credit for the collateralisation of technical liabilities. We report in detail on existing contingent liabilities in the notes, section 8.7 "Contingent liabilities and commitments", page 245 et seq.

Analysis of the consolidated cash flow statement

Liquidity

We generate liquidity primarily from our operational reinsurance business, investments and financing measures. Regular liquidity planning and a liquid investment structure ensure that Hannover Re is able to make the necessary payments at all times. Hannover Re's cash flow is shown in the consolidated cash flow statement on page 152 et seq.

Hannover Re does not conduct any automated internal cash pooling within the Group. Liquidity surpluses are managed and created by the Group companies. Various loan relationships exist within the Hannover Re Group for the optimal structuring and flexible management of the short- or long-term allocation of liquidity and capital.

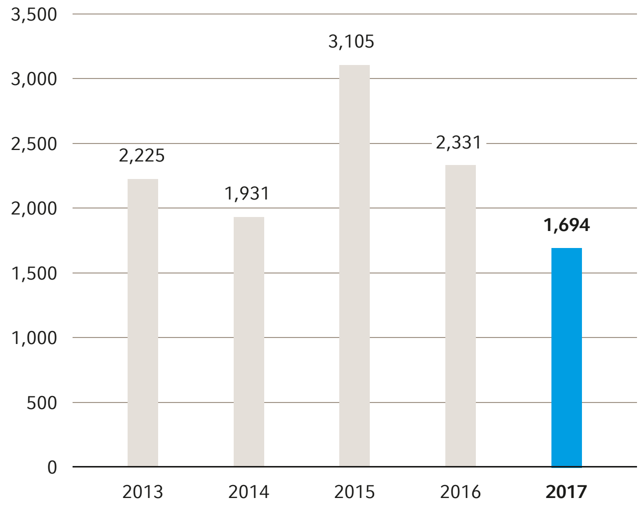
Consolidated cash flow statement M 34

in EUR million	2017	2016
Cash flow from operating activities	1,693.9	2,331.3
Cash flow from investing activities	(942.3)	(1,711.6)
Cash flow from financing activities	(690.0)	(626.9)
Exchange rate differences on cash	(74.5)	34.9
Change in cash and cash equivalents	**(13.0)**	**27.7**
Cash and cash equivalents at the beginning of the period	848.7	821.0
Change in cash and cash equivalents according to cash flow statement	(13.0)	27.7
Cash and cash equivalents at the end of the period	**835.7**	**848.7**

Cash flow from operating activities

The cash flow from operating activities, which also includes inflows from interest received and dividend receipts, amounted to EUR 1,693.9 million in the year under review as opposed to EUR 2,331.3 million in the previous year. The reduction of altogether EUR 637.4 million was essentially due to increased claims paid as a consequence of sharply higher large losses in the reporting period compared to the previous year.

Cash flow from operating activities M 35
in EUR million



Cash flow from investing activities

The balance of cash inflows and outflows from operating activities and financing activities in an amount of EUR 942.3 million (EUR 1,711.6 million) was invested in accordance with the company's investment policy, giving particular consideration to matching of currencies and maturities on the liabilities side of the technical account. Regarding the development of the investment portfolio please see also our remarks at the beginning of this section.

Cash flow from financing activities

The cash outflow from financing activities amounted to EUR 690.0 million (EUR 626.9 million) in the year under review. This item includes primarily the dividends paid out by Group companies in the financial year totalling EUR 647.1 million (EUR 613.0 million).

Overall, the cash and cash equivalents therefore decreased year-on-year by EUR 13.0 million to EUR 835.7 million.

For further information on our liquidity management please see page 78 et seq. of the risk report.

Financial strength ratings

A.M. Best and Standard & Poor's, the rating agencies of particular relevance to the insurance industry, assess the financial strength of Hannover Re on the basis of an interactive rating process and have awarded it very good ratings. The rating agencies highlight in particular the strength of the Hannover Re Group's competitive position, its capitalisation and its risk management.

Financial strength ratings of the Hannover Re Group M 36

	Standard & Poor's	A.M. Best
Rating	AA- (Very Strong)	A+ (Superior)
Outlook	stable	stable

Financial strength ratings of subsidiaries M 37

	Standard & Poor's	A.M. Best
E+S Rückversicherung AG	AA-	A+
Hannover Life Reassurance Africa Ltd. [1]	A-	–
Hannover Life Reassurance Bermuda Ltd.	AA-	A+
Hannover Life Reassurance Company of America	AA-	A+
Hannover Life Reassurance Company of America (Bermuda) Ltd.	AA-	–
Hannover Life Re of Australasia Ltd.	AA-	–
Hannover Reinsurance Africa Ltd. [1]	A-	–
Hannover Re (Ireland) Designated Activity Company	AA-	A+
Hannover Re (Bermuda) Ltd.	AA-	A+
Hannover ReTakaful B.S.C. (c)	A+	–
International Insurance Company of Hannover SE	AA-	A+

[1] Hannover Reinsurance Africa Ltd. and Hannover Life Reassurance Africa Ltd. benefit from parental guarantees issued by Hannover Rück SE (the "Guarantor"). The guarantees cover all of the payment obligations of HR SA and HLR SA in respect of insurance and reinsurance contracts issued by them. The guarantees are unconditional and continuing and shall be binding upon the Guarantor. The owners of the insurance and reinsurance contracts issued by these subsidiaries are express third party beneficiaries of these guarantees. The obligations of the Guarantor under these guarantees rank pari passu with all other unsecured indebtedness of such Guarantor.

Issue ratings of issued debt

As part of the process of rating Hannover Re the rating agencies also assess the debt issued by the Hannover Re Group.

Issue ratings of issued debt M38

	Standard & Poor's	A.M. Best
Hannover Rück SE, subordinated debt, EUR 500 million; 2014/undated	A	a+
Hannover Finance (Luxembourg) S.A., subordinated debt, EUR 500 million; 2012/2043	A	aa-
Hannover Finance (Luxembourg) S.A., subordinated debt, EUR 500 million; 2010/2040	A	aa-

Information pursuant to § 315 Para. 4 German Commercial Code (HGB)

The common shares (share capital) of Hannover Rück SE amount to EUR 120,597,134.00. They are divided into 120,597,134 registered no-par shares.

The Executive Board of the company is not aware of any restrictions relating to voting rights or the transfer of shares, including cases where these may arise out of agreements between shareholders.

The following companies hold direct or indirect capital participations that exceed 10% of the voting rights: Talanx AG, Hannover, directly holds 50.2% (rounded) of the company's voting rights. HDI-Haftpflichtverband der Deutschen Industrie Versicherungsverein auf Gegenseitigkeit, Hannover, which holds a stake of 79.0% in Talanx AG, therefore indirectly holds 39.7% (rounded) of the voting rights in the company.

There are no shares with special rights granting their holders powers of control, nor is there any specially structured voting control for employees who have capital participations and do not directly exercise their rights of control.

The appointment and recall of members of the Executive Board are determined by §§ 84 et seq. Stock Corporation Act. Amendment of the Articles of Association is governed by §§ 179 et seq. Stock Corporation Act in conjunction with § 18 Para. 2 of the Articles of Association of Hannover Rück SE.

The powers of the Executive Board with respect to the issue and repurchase of shares are defined in the Articles of Association of Hannover Rück SE as well as in §§ 71 et seq. Stock Corporation Act. In this connection the Annual General Meeting authorised the Executive Board on 6 May 2015 pursuant to § 71 Para. 1 Number 8 Stock Corporation Act to acquire treasury shares on certain conditions for a period of five years, ending on 5 May 2020.

The following paragraphs explain major agreements concluded by the company that are subject to reservation in the event of a change of control, inter alia following a takeover bid, and describe the resulting effects. Some letter of credit lines extended to Hannover Rück SE contain standard market change-of-control clauses that entitle the banks to early termination of a credit facility if Talanx AG loses its majority interest or drops below the threshold of a 25% participation or if a third party acquires the majority interest in Hannover Rück SE. For details of the letter of credit lines please see our explanatory remarks on the letter of credit (LoC) facilities in the notes, section 8.7 "Contingent liabilities and commitments", page 245.

In addition, retrocession covers in property & casualty and life & health business contain standard market change-of-control clauses which in each case grant the other contracting party a right of termination if a significant change occurs in the ownership structure and participation ratios of the affected contracting party.

The company has not concluded any compensation agreements with the members of the Executive Board or with employees in the event of a takeover bid being made.

Information on Hannover Rück SE

(condensed version in accordance with the Commercial Code (HGB))

Hannover Re avails itself of the option to present a combined Group and company management report pursuant to § 315 Para. 3 of the Commercial Code (HGB) in conjunction with § 298 Para. 3 of the Commercial Code (HGB). Supplementary to the reporting on the Hannover Re Group, we discuss below the development of Hannover Rück SE.

The annual financial statement of Hannover Rück SE is drawn up in accordance with German accounting principles (HGB). The consolidated financial statement, on the other hand, conforms to International Financial Reporting Standards (IFRS). This gives rise to various divergences in accounting policies affecting, above all, intangible assets, investments, technical assets and liabilities, financial instruments and deferred taxes.

The annual financial statement of Hannover Rück SE – from which the balance sheet and profit and loss account in particular are reproduced here in condensed form – has been submitted to the operator of the electronic Federal Gazette and can be accessed via the webpage of the Companies Register. This annual financial statement can also be accessed on the company's website (www.hannover-re.com) and may be requested from Hannover Rück SE, Karl-Wiechert-Allee 50, 30625 Hannover, Germany.

Hannover Rück SE transacts reinsurance business in the business groups of Property & Casualty and Life & Health reinsurance. Through its global presence and activities in all lines of reinsurance the company achieves extensive risk diversification.

Since 1 January 1997 Hannover Rück SE has written active reinsurance for the Group – with few exceptions – solely in foreign markets. Responsibility within the Hannover Re Group for German business rests with the subsidiary E+S Rückversicherung AG.

Results of operations

The 2017 financial year passed off satisfactorily for Hannover Rück SE. The gross premium of Hannover Rück SE in total business grew by 11.5% to EUR 13.3 billion (previous year: EUR 11.9 billion). The level of retained premium rose from 72.4% to 78.4%. Net premium earned also increased, climbing by 19.6% to EUR 10.2 billion (EUR 8.5 billion).

Condensed profit and loss account of Hannover Rück SE M 39

in EUR thousand	2017	2016
Earned premiums, net of retrocession	10,208,864	8,534,768
Allocated investment return transferred from the non-technical account, net of retrocession	185,841	237,271
Other technical income, net of retrocession	0	0
Claims incurred, net of retrocession	7,636,262	6,905,906
Changes in other technical provisions, net of retrocession	(177,799)	331,795
Bonuses and rebates, net of retrocession	(139)	30
Operating expenses, net of retrocession	2,593,164	1,860,197
Other technical charges, net of retrocession	277	902
Subtotal	**(12,658)**	**336,799**
Change in the equalisation reserve and similar provisions	165,944	8,724
Net technical result	**153,286**	**345,523**
Investment income	1,302,933	1,385,001
Investment charges	105,401	98,049
Allocated investment return transferred to the technical account	(186,558)	(277,463)
Other income	176,862	171,464
Other charges	373,123	284,704
Profit or loss on ordinary activities before tax	**967,999**	**1,241,772**
Taxes on profit and income and other taxes	124,599	292,540
Profit for the financial year	**843,400**	**949,232**
Profit brought forward from previous year	431,014	85,163
Allocations to other retained earnings	414	395
Disposable profit	**1,274,000**	**1,034,000**

The underwriting result (before changes in the equalisation reserve) contracted in the reporting period from EUR 336.8 million to EUR -12.7 million. Following a withdrawal of EUR 8.7 million in the previous year, an amount of EUR 165.9 million was withdrawn from the equalisation reserve and similar provisions in the year under review.

Unlike in the previous years, the level of large losses in 2017 was significantly higher than anticipated. After a moderate loss experience in the first six months of the year, the second half was impacted by severe natural catastrophe events. The (re) insurance industry had to cope with its most costly hurricane season to date, as three storms followed in quick succession. Several other natural disasters also occurred, including the destructive earthquakes in Mexico and devastating forest fires in California. The total net expenditure from large losses for Hannover Rück SE was EUR 689.8 million (EUR 340.1 million).

Ordinary investment income including deposit interest fell clearly short of the previous year's level at EUR 1,002.9 million (EUR 1,197.9 million), principally due to lower distributions from our investment holding companies and reduced income from funds withheld and contract deposits. The ordinary income from fixed-income securities nevertheless remained relatively stable despite the persistently very low interest rate level, declining only slightly to EUR 419.0 million (EUR 430.0 million). Net gains of EUR 247.9 million (EUR 132.9 million) were realised on disposals. The sharp increase can be attributed in part to regrouping measures in connection with regular portfolio maintenance, but primarily to the liquidation of our portfolio of non-strategic listed equities at the end of the third quarter. Write-downs of just EUR 20.7 million (EUR 34.9 million) were taken on investments. They were attributable mainly to bearer debt securities held as current assets. The write-downs contrasted with write-ups of EUR 13.7 million (EUR 25.9 million) that were made on assets written down in previous periods in order to reflect increased fair values.

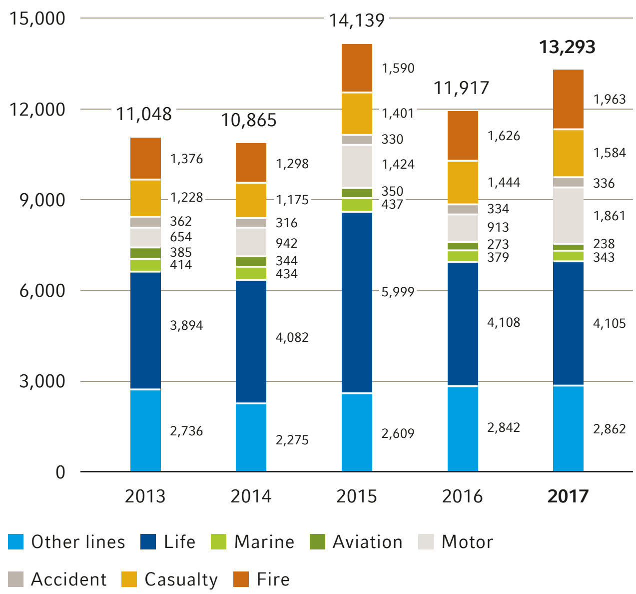
All in all, the net investment result retreated to EUR 1,197.5 million (EUR 1,287.0 million). The balance of other income and charges changed from EUR -113.2 million to EUR -196.3 million.

The profit on ordinary activities decreased to EUR 968.0 million (EUR 1,241.8 million). The year under review closed with a profit for the year of EUR 843.4 million (EUR 949.2 million).

Development of the individual lines of business

The following section describes the development of the various lines of business. With effect from the beginning of the 2014 financial year the cooperation and exchange of business between Hannover Rück SE and E+S Rückversicherung AG was reorganised. In this context a quota share retrocession from Hannover Rück SE to E+S Rückversicherung AG in property and casualty reinsurance was maintained.

Hannover Rück SE: Breakdown of gross premium by individual lines of business **M 40**
in EUR million



Fire

Total gross premium income for the fire line climbed by 20.8% in the 2017 financial year to EUR 1,963.4 million (EUR 1,625.5 million). The net loss ratio rose from 67.7% to 75.7%. The underwriting result declined to EUR -122.5 million (EUR 57.5 million). An amount of EUR 337.2 million (EUR 211.6 million) was withdrawn from the equalisation reserve and similar provisions, primarily because the loss-heavy 2001 financial year was eliminated from the 15-year observation period.

Casualty

Gross premium in casualty business climbed by 9.7% to EUR 1,584.0 million (EUR 1,443.7 million). The loss ratio decreased from 78.0% to 44.3%. The underwriting result improved to EUR 349.5 million (EUR -17.4 million) in the year under review. An amount of EUR 305.1 million was allocated to the equalisation reserve and similar provisions; the allocation in the previous year had totalled EUR 190.3 million.

Accident

Gross premium income for the accident line increased by 0.7% in the year under review to EUR 336.1 million (EUR 333.8 million). The net loss ratio retreated slightly to 64.6% (64.8%). The underwriting result came in at EUR 18.0 million (EUR 22.0 million). An amount of EUR 24.9 million (EUR 20.6 million) was withdrawn from the equalisation reserve and similar provisions.

Motor

Driven by large-volume quota share treaties, gross premium income for the motor line soared by 103.8% to EUR 1,860.8 million (EUR 913.1 million). The loss ratio increased from 68.1% to 85.6%. The underwriting result closed at EUR -247.5 million after EUR 53.2 million in the previous year. An amount of EUR 60.5 million was withdrawn from the equalisation reserve and similar provisions in the year under review, following an allocation of EUR 106.5 million in the previous year.

Aviation

The gross premium volume fell by 12.8% from EUR 273.0 million to EUR 238.1 million. The loss ratio moved into negative territory at -42.7% (57.7%) due to the favourable run-off of losses from prior underwriting years and other effects. The underwriting result came in at EUR 198.6 million (EUR 39.3 million). An amount of EUR 57.1 million was withdrawn from the equalisation reserve and similar provisions in the year under review, following an allocation of EUR 23.3 million in the previous year.

Marine

Gross written premium for the marine line contracted by 9.3% in the 2017 financial year to EUR 343.2 million (EUR 378.7 million). The net loss ratio increased markedly from 30.8% to 96.2%. Against this backdrop the underwriting result declined from EUR 105.7 million to EUR -35.8 million. An amount of EUR 28.6 million (EUR 86.7 million) was withdrawn from the equalisation reserve and similar provisions in the year under review.

Life

Gross premium income in the life line was stable in the reporting period at EUR 4,104.9 million (EUR 4,107.8 million). From an overall perspective, life and health reinsurance business developed broadly in line with expectations. In Europe, fulfilment of Solvency II requirements was an ever-present issue. Demand was particularly heavy in the area of longevity risks because Solvency II requires primary insurers to establish high reserves as collateral for pension obligations that are usually still in the distant future. In developing countries a steadily growing and ageing middle class led to pleasing growth, above all driving demand for critical illness covers.

Parts of the mortality portfolio in the United States performed more poorly than anticipated. This caused the underwriting result in life business for the year under review to decline overall to EUR 29.3 million (EUR 97.0 million).

Other lines

The lines of health, credit and surety, other indemnity insurance and other property insurance are reported together under other lines. Other property insurance consists of the extended coverage, comprehensive householder's (contents), comprehensive householder's (buildings), burglary and robbery, water damage, plate glass, engineering, loss of profits, hail, livestock and windstorm lines. Other indemnity insurance encompasses legal protection, fidelity as well as other pure financial losses and property damage.

The total gross premium volume in the other lines grew by a modest 0.7% to EUR 2,862.4 million (EUR 2,841.6 million). The net loss ratio climbed from 72.5% to 80.9%. The underwriting result closed at EUR -202.3 million following EUR -20.5 million in the previous year. An amount of EUR 37.2 million was allocated to the equalisation reserve and similar provisions after a withdrawal of EUR 9.8 million in the previous year.

Assets and financial position

Balance sheet structure of Hannover Rück SE M 41

in EUR thousand	2017	2016
Assets		
Intangible assets	69,384	76,359
Investments	34,460,839	35,646,313
Receivables	2,894,030	2,753,154
Other assets	292,824	384,729
Prepayments and accrued income	165,263	162,441
Total assets	**37,882,340**	**39,022,996**
Liabilities		
Subscribed capital	120,597	120,597
Capital reserve	880,608	880,608
Retained earnings	630,511	630,511
Disposable profit	1,274,000	1,034,000
Capital and reserves	**2,905,716**	**2,665,716**
Subordinated liabilities	1,500,000	1,500,000
Technical provisions	30,226,694	30,880,118
Provisions for other risks and charges	371,949	531,367
Deposits received from retrocessionaires	1,907,577	2,286,675
Other liabilities	970,404	1,159,116
Accruals and deferred income	–	4
Total liabilities	**37,882,340**	**39,022,996**

Our portfolio of assets under own management contracted in the year under review to EUR 26.5 billion (EUR 27.3 billion). This corresponds to a decline of 3.2% and can be attributed in part to reductions in the fair values of fixed-income securities held in current assets as a consequence of upsloping EUR and GBP yield curves as well as upward pressure for shorter- and medium-term maturities of the USD interest rate spectrum; the primary factor, however, was exchange rate effects associated with our USD-denominated holdings. The balance of unrealised gains on fixed-income securities and bond funds decreased to EUR 662.9 million (EUR 685.1 million). This reflects the aforementioned yield increases for EUR- and GBP-denominated government bonds, which were only partially offset by a further modest reduction in risk premiums for corporate bonds. Opposing effects derived solely from long-dated US Treasuries, which recorded slight yield decreases over the year as a whole.

Deposits with ceding companies, which are shown under the investments, fell marginally in the year under review to EUR 8.0 billion (EUR 8.3 billion).

Our capital and reserves – excluding the disposable profit – stood at EUR 1,631.7 million (EUR 1,631.7 million). The total capital, reserves and technical provisions – comprised of the capital and reserves excluding disposable profit, the subordinated liabilities, the equalisation reserve and similar provisions as well as the net technical provisions – decreased during the year under review to EUR 33,358.4 million (EUR 34,011.8 million). The balance sheet total of Hannover Rück SE fell to EUR 37.9 billion (EUR 39.0 billion).

A dividend of EUR 3.50 plus a special dividend of EUR 1.50 per share, equivalent to EUR 603.0 million (EUR 572.8 million), was paid out 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 plus 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.

Risks and opportunities

The business development of Hannover Rück SE is essentially subject to the same risks and opportunities as that of the Hannover Re Group. As a general principle, Hannover Rück SE shares in the risks of participating interests and subsidiaries according to the amount of its respective holding; these are described in the risk report. The relations with participating interests of Hannover Rück SE may also give rise to losses from legal or contractual contingent liabilities (particularly novation clauses and guarantees). Please see our explanatory remarks in the notes to this report.

Other information

We received an adequate consideration for all transactions with affiliated companies according to the circumstances of which we were aware at the time when the transactions were effected. We incurred no losses requiring compensation as defined by § 311 Para. 1 Stock Corporation Act (AktG).

Hannover Rück SE maintains branches in Australia, Bahrain, Canada, China, France, India, Korea, Malaysia, Sweden and the United Kingdom.

Outlook

In view of the interrelations between the parent company and the Group companies and the former's large share of business within the Group, we would refer here to our remarks contained in the section entitled "Outlook for 2018" on page 142, which also reflect the expectations for Hannover Rück SE.

Hannover Re expects to generate a good profit on ordinary activities for the current financial year. In terms of the dividend, we envisage a payout ratio in the range of 35% to 40% of the IFRS Group net income. This ratio may increase in light of capital management considerations if the present comfortable level of capitalisation remains unchanged.

Group non-financial information statement

Introduction

The present Group non-financial information statement was drawn up pursuant to the CSR Directive Implementation Act in accordance with the disclosures required by § 289b and c German Commercial Code (HGB) and § 315c German Commercial Code (HGB). It contains the legally required information relating to significant environmental matters, employee matters, social matters, respect for human rights and combating corruption and bribery. Within these individual aspects the underlying concepts and due diligence processes are discussed and available findings are reported. In addition, the Group non-financial statement is to be used to report on material risks pursuant to § 289c (3) No. 3 and 4 German Commercial Code (HGB), to the extent necessary for an understanding of the business development, business result, position of the Group and implications for non-financial matters. In view of the fact that we purposefully enter into numerous risks in the context of our business operations, we have put in place an extensive and effective risk management system. For a description of the risk management system please see the section "Risk report" of the "Opportunity and risk report" from page 78 onwards of the Group management report. Our non-financial risks are summarised there under the operational and other risks.

Hannover Re has only defined financial management ratios and key financially performance indicators. For this reason, no non-financial performance indicators pursuant to § 289c (3) No. 5 German Commercial Code (HGB) are available that are relevant to the business operations of the Hannover Re Group.

Pursuant to § 315b (1) Sentence 3 German Commercial Code (HGB), reference is also made to non-financial information provided elsewhere in the Group management report with respect to certain aspects. Unless otherwise stated, all information refers to the Hannover Re Group. The Group non-financial information statement is a section of the report that the legislator has expressly exempted from the audit of the financial statements (§ 317 (2) Sentence 6 and Sentence 4 German Commercial Code (HGB); unaudited information). It is the responsibility of the Supervisory Board to verify the lawfulness, correctness and expediency of the Group non-financial information statement.

A detailed description of Hannover Re's sustainability efforts, which go above and beyond the legal requirements of the Group non-financial information statement, is provided in a separate Sustainability Report compiled annually by the Group on a voluntary basis.

Description of the business model

For a detailed description of the business model please see the section "Business model" under "Foundations of the Group" on page 15 of the Group management report.

Group and sustainability strategy

Our Group strategy encompasses ten strategic principles that apply to all business units and help to ensure realisation of our vision for the strategy cycle 2015 to 2017 "Long-term success in a competitive business". The objectives of our Group strategy are pursued in accordance with our holistic management system Performance Excellence 2.0. Based on the Excellence Model of the European Foundation for Quality Management (EFQM), this requires each organisational unit of our Group to define and explore its contribution to the Group strategy. In this way, we ensure that all initiatives and measures within our Group are rigorously linked to the corporate strategy. Indicators for the status of target attainment are mapped centrally in our Target Matrix. For further details please see the section "Value-based management" on page 16 of the Group management report.

Group Strategy 2015-2017

1. We have ambitious profit and growth targets
   - Generate an IFRS return on equity of at least 900 basis points above the risk-free interest rate
   - Achieve profitability targets and generate a profit clearly in excess of the cost of capital
   - Grow the premium volume (by more than the market average)
   - Outperform the Global Reinsurance Index (GloRe) over a three-year period
   - Consistently pay an attractive dividend

2. We are a preferred business partner
   - Offer an attractive value proposition that makes us the preferred business partner for our clients
   - Foster customer relationships to both parties' mutual benefit irrespective of the size of the account

3. We aim for successful employees
   - Offer attractive workplaces
   - Foster the qualifications, experience and commitment of our staff

4. We strive for an optimal balance between stability and yield of our investments
   - Achieve the target return – risk-free interest rate plus cost of capital

5. We manage risks actively
   - Ensure protection of capital through quantitative risk management
   - Ensure protection of capital through qualitative risk management

6. We maintain an adequate level of capitalisation
   - Ensure that requirements for equity resources (economic capital model, solvency regulations etc.) are met
   - Optimise the overall cost of capital

7. We ensure low costs through an efficient organisational set-up
   - Ensure a lower expense ratio than our competitors

8. We use information technology to achieve a competitive advantage
   - Information and communication systems assure optimal support for business processes in light of cost/benefit considerations

9. We are committed to sustainability, integrity and compliance
   - Ensure conformity with all legal requirements
   - Encourage sustainable actions with respect to all stakeholders
   - Support considered and pragmatic principles of corporate governance and recognise their central role in guiding our activities

10. We strive for Performance Excellence and continuous improvement
    - Ensure the rigorous derivation of strategic objectives across all areas of the company

As enshrined in Item 9. of the Group strategy, sustainability forms an integral part of our actions. Our goal is to harmonise our business operations with environmental and social requirements. To do this, we have developed a sustainability strategy that complements the guiding model of our Group strategy. This defines four actions fields, concrete goals and measures, while also taking into account the major requirements and interests of our stakeholders. Of particular relevance here are our customers, our investors and our employees.

Responsibility for the topic of sustainability rests with the full Executive Board of Hannover Rück SE. The sustainability strategy, goals and measures are reviewed and approved by the Executive Board. In view of the Group's decentralised organisational structure, sustainability measures are implemented directly on the level of the various specialist units. The coordination of goals and measures as well as the collection of data for reporting purposes are handled by an interdisciplinary team composed of representatives of all relevant business units.

With a view to identifying significant non-financial topics, we conducted a materiality analysis as required for reporting purposes in accordance with the Global Reporting Initiative (GRI). To this end, an internal workshop was held at which representatives of all relevant specialist units were called upon to specify important issues in relation to Hannover Re's business operations. A stakeholder survey was also carried out in cooperation with an external partner. The issues identified as material by stakeholders and from the company's perspective were subsequently sorted and weighted with the aid of a scoring system in order to determine materiality. In total, we identified 15 material sustainability issues, on which we have reported since 2011 on a voluntary basis in our annual Sustainability Report.

These issues dovetail to some extent with the topics to be reported on under the CSR Directive Implementation Act. In the process of preparing the non-financial information statement, the legally required dimensions of "business relevance" and "impacts" were factored into the determination of materiality. As a first step, the 15 material issues identified for the sustainability strategy were evaluated on a scale of 0 to 5 with an eye to their business relevance to the non-financial aspects of the CSR Directive Implementation Act. We consider issues rated 3.3 and higher to be material for our company within the meaning of this legislation. In a second step, the issues pinpointed by this evaluation as material were rated – again using the aforementioned points scale – according to their direct and indirect impacts on the non-financial aspects. All issues rated 3.3 or higher were included and form the content of our non-financial information statement. The matrix below compares the reportable aspects with the issues that we identified as material within the meaning of the CSR Directive Implementation Act and highlights thematic overlaps.

Matrix of material sustainability issues and reportable non-financial aspects M 42

	Reportable non-financial aspects				
Material sustainability issues	Environmental matters	Employee matters	Social matters	Respect for human rights	Combating corruption and bribery
Responsible enterprise management	x	x			
Compliance	x	x		x	x
Stakeholder dialogue	x	x	x	x	x
Sustainable insurance solutions	x		x		
ESG in asset management	x	x		x	x
Customer orientation and satisfaction					
Executive development and employee advancement		x			
Employee affinity		x			
Diversity		x			

The material topics as defined by the CSR Directive Implementation Act are discussed below.

Responsible enterprise management

As an internationally operating company, Hannover Re bears responsibility in various senses. This is true of compliance with relevant laws and regulations, but also applies to the relationship with staff, shareholders, the public at large and the cultures within which the company operates. As a listed European company (SE) based in Germany, the formal framework that shapes Hannover Re's corporate governance is determined by national law. The fundamental hallmarks of this corporate governance structure are a two-tier system with its transparent and effective split into management (Executive Board) and its oversight (Supervisory Board), the appointment of shareholder and employee representatives to the Supervisory Board and the rights of co-administration and supervision exercised by shareholders at the General Meeting. The interplay between these bodies is regulated by German stock corporation law and by the company's Articles of Association. Furthermore, our Group Strategy, the Corporate Governance principles and our Code of Conduct form the basis of our enterprise management.

In addition to our continuous engagement with the changing general legal framework, since 2003 we have provided an annual Declaration of Conformity with the German Corporate Governance Code (DCGK) which is published on our company's website and reproduced on page 106 of the Group management report. The Corporate Governance principles of Hannover Rück SE are also subject to regular review and fulfil the recommendations of the currently valid version of the German Corporate Governance Code as amended.

Given that the trust of our various stakeholder groups and an immaculate reputation advance the success of our company, we also make every effort to continuously maintain an active dialogue with our stakeholders.

In our annually published Sustainability Report we provide regular updates on our achievements as a responsible enterprise. In so doing, we follow the currently applicable and internationally recognised guidelines of the Global Reporting Initiative (GRI). In our sustainability communication we also fulfil the transparency requirements of environmental, social and governance (ESG) rating agencies, as reflected in the favourable evaluations of our company. Hannover Re participates in the following sustainability ratings: FTSE4Good, Robeco SAM, Oekom Research, Sustainalytics, VigeoEiris, CDP and MSCI. In addition, we are included in the FTSE4Good Index, the Global Challenges Index initiated by the Hannover stock exchange parent company BÖAG Börsen AG as well as in major STOXX indices.

**Goal to be achieved by 2017:
Value creation for our shareholders** M43

Measures	Results
Our goals and performance indicators for value-based enterprise management are set out as part of our Group strategy.	Further information in this regard is provided in the "Value-based management" section of the Annual Report.

**Goal to be achieved by 2017:
Attractive investment for sustainability-minded investor groups** M44

Measures	Results
Active dialogue with rating agencies for sustainability with a view to ongoing inclusion in at least one recognised sustainability index as well as maintaining the Oekom "Prime" rating	A regular, active dialogue is conducted with rating agencies. In 2017 we were again listed in the FTSE4Good Index and achieved the "Prime" rating from Oekom Research.
Enlarge on rating-specific sustainability topics	In the context of the annual online Sustainability Report we have been increasingly responsive to the information requirements of rating agencies and enlarged on various topics, including for example reinsurance solutions.

Compliance

The term "compliance" can be defined as the totality of all content-related and organisational safeguards that ensure the lawful conduct of the Hannover Re companies, the members of their governing bodies and their employees with regard to all legal and ethical standards as well as the internal corporate policies in the major areas of the organisation and operating processes. We consider efficiently functioning compliance management to be essential, since legally correct, responsible and ethical actions constitute the fundamental precondition for trust in our company and for its competitiveness. In our view, conformity with applicable legal requirements is a self-evident prerequisite for enduring successful business operations. This includes laws and regulations relating to the environment just as it does those with a bearing on, among other things, anti-corruption, the prevention of money laundering, data privacy and tax compliance.

The Corporate Compliance Organisational Manual summarises the major activities and defines the responsibilities within our company, the interfaces and the elements of the compliance organisation. Our compliance structure was reviewed most recently in 2015 against the backdrop of the compliance requirements associated with Solvency II. A worldwide network of compliance officers reports to and supports the Chief Compliance Officer in his duties. The Chief Compliance Officer works to ensure compliance with internal corporate policies by cooperating with other departments, including Group Auditing, and updates the Executive Board on material compliance issues and developments in an annual compliance report. A Web-based whistleblower system is also in place for the companies within the Group. This enables employees, customers and third parties to report compliance violations in their local language or in English – anonymously if they so desire. Relevant tips and any countermeasures initiated are included in the annual compliance report.

Our Code of Conduct is accepted by our employees as an integral component of their employment contract and therefore has binding effect. It makes clear that active and passive bribery are not tolerated and further makes specific reference to the prohibition of money laundering and illicit financing. The Compliance Officer is to be notified of all suspicious cases. There are also specific rules of conduct, for example in the form of instructions for the avoidance and disclosure of conflicts of interest, for the granting and acceptance of benefits, gifts and invitations, for the arrangement of donations and sponsorships as well as with respect to sideline activities and involvement in other companies and business transactions. Our Code of Conduct also contains specific instructions for containing other corruption risks. These risks include the alleged offence of active and passive bribery as well as the acceptance and granting of benefits, especially in connection with invitations and gifts, procurement, tendering procedures, donations and sponsorship activities. The compliance risks facing the corporate group are regularly analysed in the context of the annual compliance plan and, as appropriate, new measures are suggested. In addition, Group Legal Services – which includes Compliance – follows up on all suspicious cases notified through the whistleblower system.

Generally speaking, the risk of human rights violations in connection with our business operations is minimal. We have focused in particular on respect for human rights within the supply chain. Since mid-2012 our Code of Conduct for Suppliers has been applied throughout large parts of the company at the Hannover location. The Code of Conduct for Suppliers was developed by the Facilities Management and Information Technology divisions with the support of Group Legal Services and updated in the year under review with an eye to the new legal requirements arising out of the UK Modern Slavery Act. It obliges all main suppliers and subcontractors to fulfil sustainability criteria, inter alia respect for human rights and observance of the core labour standards of the International Labour Organisation (ILO). Based on the criteria of the Code of Conduct for Suppliers, we have also developed an application-supported self-reporting process for suppliers and service providers. The process is used regularly by Facilities Management at the Hannover location, and we plan to roll it out progressively at the international offices.

As a listed company, we also emphasise to our employees the necessity of observing rules on insider trading and we specify blocking periods during which shares may not be traded.

When it comes to confidentiality, data privacy and data security, the most important rules are defined on a mandatory basis for all employees in our Code of Conduct as well as our Information Security and Data Privacy Policies. The existing structures of the established compliance organisation are used to implement the minimum standards required by data privacy law. The EU General Data Protection Regulation does not directly affect all Hannover Re companies if their registered office is located outside the European Union or European Economic Area. The respective national legal frameworks are determinative for these companies. Irrespective of the scope of application of the EU General Data Protection Regulation, the appointed Compliance Officers and contact persons are responsible for local data protection requirements. As necessary, they draw up additional local data privacy guidelines and serve as the interface to the Data Protection Officer at Hannover Re in Germany. The Data Protection Officer coordinates overarching aspects of the installed data privacy management system within the Hannover Re Group. He gives advice on how to resolve specific data privacy issues and monitors compliance with the EU General Data Protection Regulation and other data protection standards. In this context, the monitoring of data privacy requirements takes place in close coordination with Group Auditing. Transparency is ensured through defined reporting channels. The results of the separate data privacy reporting are included in the compliance report.

Observance of applicable sanctions regulations plays a central role for us on account of our international orientation. We have enshrined the requirement for compliance with relevant sanctions provisions in our Code of Conduct and Underwriting Guidelines. In addition, a Sanctions Screening Guideline is in place, stipulating when members of staff must perform sanctions screening with respect to the initiation of contracts and/or the payment of claims. A software-supported check continuously verifies whether the company's data inventories include the names of persons who are subject to sanctions. If the software alerts the user to any such names, these are investigated in a two-step process. Contract formation or payment of funds is prevented if matches are determined. Each working day staff in Group Legal Services check the Official Journal of the European Union for changes in sanctions law on the EU level and publicise relevant changes Group-wide without delay.

With the aid of our Tax Guideline, which applies throughout the Group, a Tax Compliance System that is currently under development and the associated review of all relevant task areas, processes and responsibilities, we want to ensure – going forward, as in the past – that despite growing complexity we satisfy tax liabilities arising out of our international business operations in accordance with the respective national legal requirements.

All new members of staff go through compliance training when they join the Group. In 2017 altogether 70 employees received training in compliance requirements. In order to keep the workforce updated on compliance issues, we also use traditional communication channels such as the intranet and online newsletters.

Since June 2012 our DIN EN ISO 14001-certified environmental management system has been in place at our Hannover headquarters to protect the environment; in 2016 this was enhanced with the addition of a validated EMAS (Eco-Management and Audit Scheme) environmental statement. We have since published an environmental statement in accordance with the EMAS III Regulation on an annual basis. The environmental management system encompasses the Hannover sites of Hannover Rück SE, E+S Rückversicherung AG and International Insurance Company of Hannover SE (Inter Hannover SE) as well as the associated children's daycare centre and hence covers roughly 43% of the global workforce.

Goal to be achieved by 2017:
Expansion of compliance concepts and guidelines in relation to specific topics **M45**

Measures	Results
Extension of compliance requirements in IT	A Cloud competence team was set up to ensure IT compliance with an eye to the growing number of Cloud-based projects. In 2017 altogether 15 Cloud projects were supported. An existing guideline was specially modified for the international offices to reflect new standards and IT requirements. In 2017 a system-supported process to assist with IT compliance control processes was implemented.
Expansion of the international compliance network	We organise an annual gathering of European Compliance Officers and also hold conference calls within this group in the other three quarters. In addition, a review of the compliance requirements under Solvency II was carried out.

Stakeholder dialogue

We maintain an open and ongoing dialogue with our stakeholders. By sharing information and opinions with them, we are able to integrate, as far as possible, the expectations and aspirations of the various stakeholder groups into our business operations. Furthermore, this dialogue helps to identify risks and opportunities at an early stage and serves to build trust. Key stakeholders are determined by our business operations and our geographical presence. The following are particularly relevant to us: our clients, our employees, the capital market, the public sector and non-governmental organisations (NGOs).

Through conferences, roadshows and one-to-one meetings, for example, we stay in contact with representatives of the capital market, rating agencies and private investors. Our employees cultivate the dialogue with our worldwide customers through direct, face-to-face discussions. Furthermore, we regularly measure customer satisfaction with the involvement of external market research institutes. We similarly engage in an ongoing dialogue with political decision-makers, supervisory authorities and insurance industry associations – mostly in relation to topical issues in insurance supervision and financial market regulation in Germany, the European Union and on the wider international level. In this context we contribute our specialist expertise from business practice to the public debate.

Goal to be achieved by 2017:
Purposeful stakeholder dialogue **M46**

Measures	Results
Systematic expansion of the stakeholder dialogue, e. g. with investors practising socially responsible investment (SRI) by attending SRI conferences/roadshows, with rating agencies and by means of regular stakeholder surveys	In November 2016 we attended an SRI conference for the first time. A regular dialogue with SRI investors and ESG rating agencies is ongoing.
Compilation of a fact sheet on sustainability at Hannover Re	A draft fact sheet had been drawn up by the end of the 2017 financial year. We are aiming to publish it in the first quarter of 2018.

Sustainable insurance solutions

The consideration given to sustainability in our business operations relates principally to our reinsurance products and services as well as the management of our investments and is taking on added importance given the growing awareness among the general public of sustainability issues. It is therefore increasingly important to evaluate insurance products with an eye to their environmental and social implications as well as their relevance to sustainable development.

Our reinsurance services do not give rise to any direct relevant environmental impacts. Rather, our services help to ensure that environmental risks are adequately insured and that the effects in the event of loss or damage can be rectified or mitigated. Beneficial social consequences are at the very core of insurance business. They include the transfer and spreading of risks, by means of which the impacts of loss events can be absorbed and both companies and private individuals alike can be financially protected. Often, it is only the backing of internationally operating reinsurers that enables primary insurers to cover large individual risks and the risks associated with natural perils.

In the engineering insurance lines, for example, multifaceted insurance solutions are realised in support of renewables, ranging from wind power generated on- and offshore to photovoltaic and geothermal energy. Insurance protection begins with the construction phase and accompanies the customer through many years of operation. By providing our support as a reinsurer we encourage the expansion of products in response to climate change, such as weather insurance and coverage for energy-saving warranties, and by delivering insurance solutions in areas such as microinsurance and agricultural risks we also play a part in the development of more structurally deprived regions. These enable people with scant financial means to protect themselves against fundamental risks such as illness, disability, the consequences of natural disasters or crop failures. We are also taking an active part in the development of index-based disaster finance concepts that guarantee rapid financial assistance for countries in South America and Asia in the event of natural catastrophes. We support primary insurance start-ups with the cost-intensive acquisition of new business and help them to increase insurance density.

In life and health reinsurance demographic changes around the world are leading to stronger demand for reinsurance in the area of longevity solutions. We are also seeing rising demand for so-called lifestyle products, which principally involve insurance solutions under which the premium is linked to an insured's healthy lifestyle (e.g. fitness and nutritional habits).

In the area of other risks we pay particular attention to future (emerging) risks. The hallmark of such risks is that their content cannot as yet be reliably assessed. Our interdisciplinary working group on "Emerging Risks and Scientific Affairs" analyses, for example, risks associated with possible climate change. Global warming would, for instance, affect not only natural perils, but also human health, the world economy, the agricultural sector and much more besides. Further examples of emerging risks include technology risks, shortage of resources and supply chain risks. On these and other topics the working group formulates internal position papers and makes recommendations regarding their handling in reinsurance practice. Within the working group the trend radar continuously tracks long-term and mega-trends.

Goal to be achieved by 2017:
Development and expansion of "sustainable" products — M 47

Measures	Results
Closer cooperation with primary insurers to develop and expand sustainable products	Cooperation with primary insurers in Pakistan, the Philippines, Indonesia and India is being steadily expanded in the growing market for microinsurance products.
Development of products that promote, for example, renewable energies	We are driving the expansion of products with a bearing on climate change, such as weather insurance and coverage solutions for energy-saving warranties in Germany, to other European countries. Index-based disaster finance concepts, which guarantee rapid financial assistance in the event of natural disasters, have been developed for countries in South America and Asia.
Further expansion of microinsurance products	In India we play an active part in the expansion of microinsurance business and reinsure a growing volume there. We also partner with primary insurers in countries such as Pakistan, the Philippines and Indonesia to provide suitable microinsurance solutions for the market. In Malaysia we support an initiative to expand state-subsidised accident and disability insurance covers.
Expansion of the dialogue on emerging risks	An in-house information system on topics relating to emerging risks keeps our employees updated and serves as a basis for dialogue. The expansion of the dialogue will continue in the 2018 to 2020 strategy cycle.

ESG criteria in asset management

Investors, analysts and clients are increasingly taking an interest in how we incorporate social and environmental aspects into the management of our investments. In general terms, when it comes to the management of our investment portfolio we aim to generate a stable and commensurate market return in the interests of our clients and shareholders. We also take into account environmental, social and governance (ESG) criteria. Our sustainability strategy on the investment side is defined in writing in our "Responsible Investment Policy", which we developed in 2011 and subsequently updated in 2016. Specifically, we are guided here by, inter alia, the ten principles of the United Nations Global Compact, i.e. we also take into account considerations relating to human rights, working conditions, the environment and anti-corruption. Furthermore, we avoid exposures to issuers who are involved in the development and proliferation of controversial weapons. Since 2012 our investments have undergone half-yearly negative screening by an external service provider to verify compliance with these

ESG criteria. Securities of issuers defined as "non-adequate" are actively reduced while minimising the market impact. In addition, potential new investments are checked in advance to see whether the issuers violate the defined ESG criteria. Such exposure is rejected if this is found to be the case. The portfolio subjected to this screening encompasses major asset classes such as fixed-income securities (government debt securities and debt securities issued by semi-governmental entities, corporate bonds and covered bonds) and listed equities. Altogether, depending on strategically motivated allocation changes, virtually 90% of our investments (carrying value as at the balance sheet date of 31 December 2017: EUR 40.1 billion) are screened according to ESG criteria. The review of government issuers centres on the question of whether – and if so which – sanctions are currently imposed on them.

In the year under review we devoted special energy to the implementation of a "best-in-class" investment approach. A designated ESG officer on the investment team assures the development and application of ESG criteria and implementation of the policy. Key investment decisions are also discussed and approved by the Investment Committee. Two members of the Executive Board sit on the Investment Committee.

Goal to be achieved by 2017:
Extension of ESG guidelines for asset management

M48

Measures	Results
Signing of the UN Principles for Responsible Investment (PRI) to be reviewed	In 2017 a review of the requirements associated with signing the UN PRIs was initiated. A concrete recommendation for action has still to be formulated, however, and a decision has not yet been finalised. This remains a goal for the upcoming strategy cycle.
Refinement of the ESG Investment Policy incl. development of positive screening	The existing ESG Investment Policy has already been refined and enhanced with a best-in-class investment approach including positive screening. Practical implementation of this measure is being pursued jointly with Asset Management. Integration of positive screening into the investment process is to be completed in 2018.
Appointment of an ESG officer on the investment team	In April 2015 we designated an ESG officer on the investment team.

Customer orientation and satisfaction

It is crucial to our company's success that we are perceived by our customers as a preferred business partner. If we are to be considered the best option, we must offer prices commensurate with the risks, adequate capacities and a reliable value proposition. As a business-to-business service provider, the fair design of our products – i. e. of contracts with primary insurers – is an essential prerequisite for our business. Our Customer Relationship Management (CRM) promotes an interactive exchange with our customers. Through a regular dialogue and in the context of events we initiate an exchange of knowledge on insurance topics and enable our customers to give feedback on our products and services in face-to-face discussions. We usually meet with our customers multiple times a year, not only on the occasion of the treaty renewals but also in connection with current developments and topical issues.

Customer relationships at our company are normally cultivated on the level of individual divisions. In property and casualty reinsurance we cultivate our customer relationships both through insurance brokers and directly by making regular business trips or holding videoconferences. Furthermore, our employees attend trade fairs and expert conferences worldwide. In life and health reinsurance – in contrast to property and casualty reinsurance – we have a direct local presence in most markets due to our decentralised approach and are thus able to engage in a quick and flexible exchange with our customers. In addition to business trips to visit individual clients, we also organise seminars – usually on specific topics – and training workshops in the markets where we operate so as to keep our customers informed about the latest issues and developments relating to life and health reinsurance as well as underwriting.

In 2017, for example, we organised events in our "Building Bridges" seminar series, at which underwriters with our clients are able to expand their knowledge of specific types of reinsurance business and risks. In life and health reinsurance our "ReCent Medical News" newsletter informs customers about medical research findings with a bearing on insurance.

We regularly conduct customer surveys in order to measure the satisfaction of our customers regionally and Group-wide; these are carried out both independently and, when it comes to certain markets, by drawing on the services of external market research institutes. We process the results of our customer surveys and studies in-house so as to identify potential action fields. The steps that were taken not only served to improve the perception of our brand, they also made our services and products stronger. In recent years, for example, we have increasingly expanded our automated underwriting systems according to the wishes of our customers and we have brought new product ideas to market.

Goal to be achieved by 2017: Customer orientation and satisfaction **M 49**

Measures	Results
Expand avenues for international dialogue	Our "Building Bridges" seminar series in the property and casualty reinsurance business group serves to build closer customer relationships and is regularly expanded to include topical issues. In the life and health reinsurance business group the newsletter "ReCent Medical News" has been an established feature for a number of years; it provides insights into the findings of medical research, case studies and underwriting methods. Several customer surveys have been held since 2015 (including in Australia and Italy). Work has begun on implementation of a proprietary CRM application ("CoRe"). This will be further expanded in subsequent years.

Executive development/Employee advancement

The success of our company depends directly on the successful work of our employees. We therefore pay particularly close attention to the qualifications, experience and commitment of our staff and foster these attributes through our excellent personnel development and leadership practices. Our strategic human resources planning enables us to harmonise the size and skills of our workforce with the current and future requirements of our global market presence as well as with the requirements of increasing digitalisation.

We employed 3,251 staff (previous year: 2,893) Group-wide as at the end of the year under review. Our company's continuing growth prompted further expansion of the workforce in the financial year just ended. Consequently, there were no major job losses in the year under review, as was also the case in previous years.

Breakdown of employees by country **M 50**

	2017		
		Men	Women
Germany	1,385	47.4%	52.6%
South Africa	488	29.3%	70.7%
United Kingdom	386	59.3%	40.7%
United States	290	51.7%	48.3%
Sweden	199	51.8%	48.2%
Australia	105	46.7%	53.3%
China	75	54.7%	45.3%
Malaysia	68	36.8%	63.2%
France	58	46.6%	53.4%
Bahrain	48	60.4%	39.6%
Ireland	48	43.8%	56.2%
Bermuda	45	57.8%	42.2%
Canada	25	44.0%	56.0%
India	20	80.0%	20.0%
Korea	9	77.8%	22.2%
Luxembourg	2	50.0%	50.0%
Total	**3,251**	**47.2%**	**52.8%**

As a global entity, we are able to offer our employees an attractive workplace that fosters motivation, dedication and teamwork. Our attractiveness as an employer is further reinforced by systematic career development programmes, a commitment to clearly expressing our appreciation of employees and an approach that allows them to participate in the sustained success of the business.

The basis of our common corporate culture is the greatest possible delegation of tasks, responsibilities and authority. In this way we ensure that our employees are able to act in a quick and flexible manner. This is supported through management by objectives, and we expect our managers to instil a strong sense of accountability in their staff. Our managers therefore play a particularly important role. They lead their staff according to our management principles. We support them in developing their leadership skills, inter alia with the aid of the management feedback process held on a regular basis. This gives members of staff an opportunity to provide feedback to their supervisor on how his or her management style is experienced.

Where qualifications are equivalent, vacant management posts are filled wherever possible from within the Group, and we therefore consider leadership potential even at the recruitment stage. As part of a standardised process that takes place every other year at the Hannover location, all positions from management level (General Manager/Director) upwards are reviewed at corporate headquarters and at selected international entities. With a view to achieving a better gender balance we strive for an increasing proportion of women on all levels of management.

When it comes to expanding and establishing our personnel development measures, we set particularly great store by a range of activities tailored to specific needs and target groups. Our programme of further training, which is open to all employees, encompasses above all offerings in the fields of information technology, reinsurance, social and methodological skills as well as language courses. The range of measures is continuously reviewed and extended.

One of the central concerns in our human resources management is exploring the implications of shifting demographics and helping to preserve the working capacity of our managers and staff. With this in mind, we have put in place strategic health management that includes, for example, in-house wellness days as well as targeted training activities for managers and staff alike. We extended our training programme for managers by including several events on the subject "Wellness – Individual Responsibility and Management Task". This gives the participating managers an opportunity to grasp the correlation between management and wellness and to reconsider their own behaviour with this in mind.

Along with making every effort to preserve working capacity, we also devote close attention to other demographic issues such as the more demanding requirements placed on our managers by the changing age structures in our society and hence also within our organisation. To this end, we extended the training programme provided to our managers in the financial year just ended so as to enable them to explore topics such as generation management.

A further important component of our health management is the Employee Assistance Programme. This has been available to our managers, staff and their family members since August 2016. The programme offers free and anonymous immediate counselling on personal, professional and health concerns as well as a service for families. Early numbers confirm that this programme has been well-received and is seen as helping to ensure that individual challenges in working or home life do not become burdens.

Staff at our Hannover head office also enjoy access to a broad range of fitness opportunities, including company sports groups dedicated to various types of sport and cooperation arrangements with fitness studios. When it comes to individual workstations, we take care to provide the most ergonomic possible room layout, desks and chairs.

Goal to be achieved by 2017:
Expansion of further training measures for specialist and executive staff **M 51**

Measures	Results
Continuation and internationalisation of the executive development programme	We offer our managers training and support measures tailored specifically to their needs as well as opportunities for individual coaching. This was already the case in the period under review and will continue in the 2018-2020 strategy cycle.
Expansion of the training programme, e.g. through blended learning	In 2015 the Hannover Re Academy was launched at the Hannover location as a learning management system. Our training programme has since been continuously reviewed with an eye to its focus and quality.

Goal to be achieved by 2017:
Preserve and restore the performance capability of our staff

M 52

Measures	Results
Continuation of existing health programmes/check-ups	In 2016 we held our first "Wellness Day", offering staff a wide range of insights into how to stay healthy and prevent disease. As a result, an additional training activity addressing the topic of relaxation skills was implemented.
Development of a counselling service for professional and personal crises ("Employee Assistance Programme" at the Hannover location)	Since August 2016 our staff and managers have been able to access an external telephone counselling service, anonymously if they so desire.
Implementation of Occupational Integration Management for employees returning after illness	The specifics were worked out by a specially formed working group. Discussions and consultations were ongoing with the Employee Council.
Continuation of the offered family services	Under the Employee Assistance Programme (EAP), family members of our staff and managers are also able to access the available services.

Employee retention

We believe in enabling our employees to strike a healthy balance between their professional and private life. We therefore offer part-time and teleworking models that can be individually structured and flexible working-time arrangements without core hours. Through this flexibility we want to make it easier for our employees to organise everyday life in phases such as starting a family or preparing for the end of their professional career, e. g. through partial retirement arrangements. These benefits are reflected in a low staff turnover rate and the long periods of time that our employees stay with the Group.

We also operate our own company daycare centre at the Hannover location, offering altogether 30 places for all-day care of infants (up to the age of three).

We attach great importance to the satisfaction of our employees in order to remain a consistently attractive employer. Regular feedback given by our staff is taken very seriously, and we use the evaluations and concrete suggestions that came out of our international employee survey as a basis for continuous improvement.

Our employees are paid according to their specific tasks, their skills and qualifications and their performance. At the same time, employees in Germany benefit from the security and advantages of the collective agreement for the private insurance industry. 93% of our employees at the Hannover location are covered by the collective bargaining agreement. The remaining 7% can be attributed to some non-collective agreements with managers. All employees in Brazil, Italy, France, Sweden and Spain are covered by collective bargaining agreements.

Supplementary to individual and statutory retirement provision, employees in Germany who have been with us for longer periods of time are entitled to inclusion in the employer-funded retirement provision models. The amount of the funding contributions is determined by the individual salary levels and calculated according to the pay scale groups under the collective agreement.

Employees can accumulate further employee-funded occupational retirement provision by way of deferred compensation. In this case we pay the contributions from the employee's gross salary into the pension fund.

Furthermore, we offer our employees a number of additional voluntary benefits. All members of our staff are granted the same benefits in proportion to their working hours.

Goal to be achieved by 2017:
Expansion of further training measures for specialist and executive staff **M 53**

Measures	Results
Internationalisation of the surveys on employee satisfaction	A worldwide employee survey was conducted in 2015/2016. Specific measures were examined in various areas of the company in the year under review and, where appropriate, implemented.
Expansion of the care services provided for employees' children at the company's infant daycare centre	30 places are currently available. This capacity can be expanded as necessary; in 2017 there was no need for additional places.

Diversity

One of the cornerstones of our successful business activities, along with our employees' skills and commitment, is the considerable degree of diversity in the workforce. At Hannover head office alone, for example, the members of staff come from altogether 39 different nations, a reflection of the international dimension of our operations. Diversity and the advancement of women are topics that have come under increasing public scrutiny in recent years. Within the Hannover Re Group, too, it is evident that women are under-represented in the company's higher hierarchical levels. With a view to changing this, the Executive Board initiated a number of measures geared specifically to furthering women in their professional development. In 2017 we therefore launched another implementation round of our in-house mentoring programme for women at the Hannover location, which will end in March 2018.

The specific focus of the internal mentoring programme on a purely female group of participants is part of our initiative to give targeted support to promising junior female managers by raising their profile in the organisation and giving them individual support. The number of participants was expanded to seven mentoring tandems. Mentoring refers to a protected, non-hierarchical partnership of fixed duration. Female employees (mentees) are paired with senior managers (mentors) for a period of twelve months to engage in a targeted, regular dialogue. In the course of the mentoring programme the mentees are encouraged to reflect on their professional development to date and to take steps to actively shape their future career. They also gain insights into new fields of work and are able to learn from their mentor's experience. We are particularly pleased that as many as three members of our company's Executive Board are participating as mentors in the 2017/2018 round of the programme.

Our worldwide Code of Conduct stipulates that nobody may be disadvantaged on grounds of his or her gender, ethnic origin, religion or ideology, disability, age or sexual persuasion. Salary increases and promotions follow a clearly defined process.

Goal to be achieved by 2017:
Promoting diversity and a work/life balance **M 54**

Measures	Results
Continuation of the mentoring programme for female employees with the aim of increasing the proportion of women in management positions	The first round of the programme was completed in 2016. Information events for a new round were held at the end of 2016 and the internal application process was set in motion. As a result, the next round of the mentoring programme got underway in March 2017.
Training/awareness-raising of executives	An executive seminar was held on "Gender-specific Communication". This forms an integral part of our further training programme for managers that continued in 2017.


Vision creates value.
Through predictability.
Our reinsurance products contribute substantially to hedging against crop failure and stabilising the world's food situation.

The importance of insurance protection for agricultural land and livestock is increasing, both in developed countries and in emerging markets.

By 2050, the world's population will have grown to about nine billion. How to feed people in a sustainable way will continue to be a major challenge of our time.

Opportunity and risk report

Risk report

- Hannover Re has a very strong capital position, which is constantly reviewed against the backdrop of possible changes in the risk profile.
- Our risk management system continuously monitors newly added and changing risks and is able to respond flexibly to changes in internal and external factors.

Strategy implementation

Our current corporate strategy encompasses ten guiding principles that safeguard the realisation of our vision "Long-term success in a competitive business" across the various divisions. For further information on the corporate strategy, the updating of this strategy effective 1 January 2018 and the strategic principles we would refer to our website (www.hannover-re.com/135441/group-strategy-at-a-glance).

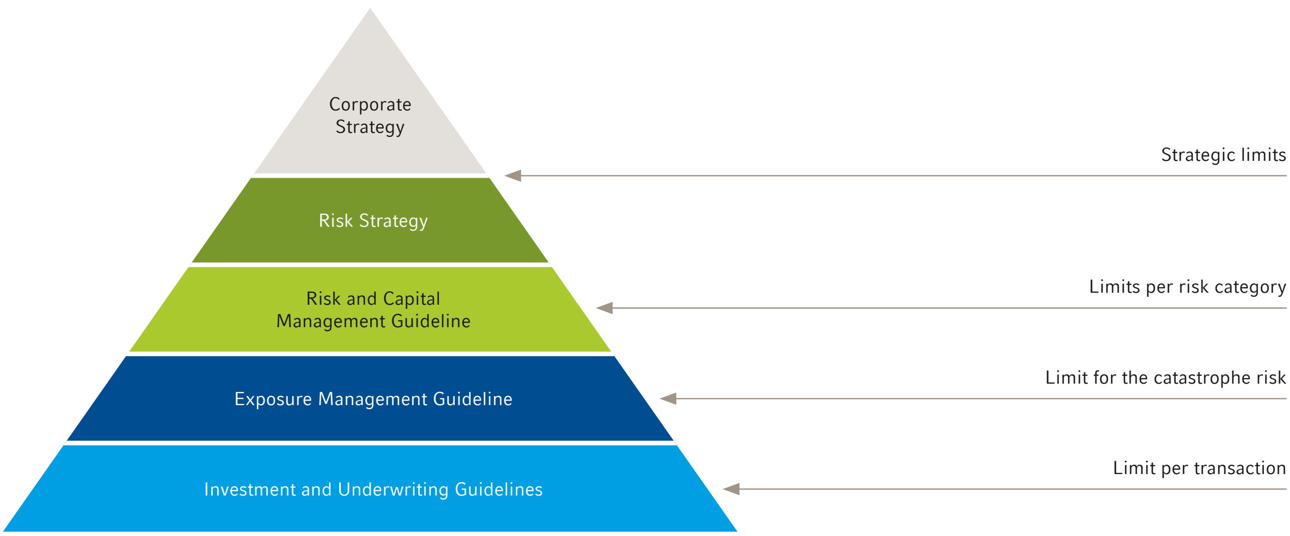
Our risk strategy is derived from the corporate strategy. The following principles of the corporate strategy constitute the key strategic points of departure for our Group-wide risk management:

- We manage risks actively.
- We maintain an adequate level of capitalisation.
- We are committed to sustainability, integrity and compliance.

The risk strategy is the core element in our handling of opportunities and risks. It specifies more closely the goals of risk management and documents our understanding of risk. We have defined eight overriding principles within the risk strategy:

1. We monitor adherence to the risk appetite set by the Executive Board.
2. We integrate risk management into value-based management.
3. We promote an open risk culture and the transparency of our risk management system.
4. We fulfil regulatory requirements.
5. We fulfil the requirements of rating agencies.
6. We act in light of materiality and proportionality considerations.
7. We make balanced use of both quantitative and qualitative methods.
8. We ensure the independence of the risk management function.

Risk management through multiple levels of limits M 55



The risk strategy, risk register and central system of limits and thresholds – as integral components of our Risk and Capital Management Guideline – are reviewed at least once a year. In this way we ensure that our risk management system is kept up-to-date.

We manage our total enterprise risk such that we can expect to generate positive IFRS Group net income with a probability of 90% p.a. and the likelihood of the complete loss of our economic capital and shareholders' equity under IFRS does not exceed 0.03% p.a. These indicators are monitored using our internal capital model and the Executive Board is informed quarterly about adherence to these key parameters as part of regular reporting. The necessary equity resources are determined according to the requirements of our economic capital model, regulatory parameters, the expectations of rating agencies with respect to our target rating and the expectations of our clients. Above and beyond that, we maintain a capital cushion in order to be able to act on new business opportunities at any time.

Strategic targets for risk position M56

	Limit	Indicator as at 31.12.2017
Probability of positive net income under IFRS	>90%	97.3%
Probability of loss of shareholders' equity under IFRS	<0.03%	0.01%
Probability of loss of economic equity	<0.03%	0.01%

Major external factors influencing risk management in the financial year just ended

Regulatory developments: The implementation of the new European supervisory regime Solvency II effective 1 January 2016 continued to make itself felt in 2017. Among other things, a Solvency and Financial Condition Report had to be compiled for the first time. Hannover Re published the report on 10 May 2017 on its website. Additional reporting requirements to the insurance regulator were fulfilled in 2017.

Hannover Re received approval from the regulatory authorities to calculate its solvency requirements using a partial internal capital model with effect from the entry into force of Solvency II on 1 January 2016. In 2017 the Hannover Re Group additionally received permission from the Federal Financial Supervisory Authority (BaFin) to calculate the operational risk on the Group level using the internal model and now has a full internal model. The aim is to obtain approvals for the solo entities belonging to the Group.

Parallel to the regulatory developments in Europe, we are seeing adjustments worldwide to the regulation of (re)insurance undertakings. It is often the case that various local supervisory authorities take their lead from the principles of Solvency II or the requirements set out by the International Association of Insurance Supervisors (IAIS).

Capital market environment: A major external influencing factor is the protracted low level of interest rates, especially with an eye to the return that can be generated on our investments. The announcement by the ECB of its decision to reduce its monthly corporate sector purchases but at the same time extend the programme until September 2018, the sluggish progress of negotiations over the United Kingdom's exit from the European Union and numerous geopolitical flashpoints impacted the capital market climate in the period under review. With this in mind, the risk management team has deployed a working group on Brexit. Despite all these influencing factors the capital market proved to be relatively stable, although it was still shaped by a low level of interest rates overall and a continuing decline in risk premiums on corporate bonds. For further information please see the "Investments" section of the management report on page 50 et seq.

Brexit: In view of the slow progress of negotiations in 2017, it is increasingly likely that the status of legal relations between the European Union and United Kingdom will not be entirely resolved by the withdrawal date of 30 March 2019. Consequently, the Hannover Re Group must also be prepared for a "hard" Brexit and the associated workload and expenses. With this in mind, Hannover Re has set up a Group-wide working group to address readiness measures. The major impacts will be felt by our entities in the United Kingdom. The "Hannover Re Life UK Branch" and "Inter Hannover UK Branch" write significant premium volumes in life reinsurance as well as property and casualty insurance respectively. The legal status of a locally authorised entity in the United Kingdom in the form of a "third-country branch" will be sought in order to continue operations after a hard Brexit. This would be necessary in the event of the United Kingdom not recognising EU supervision and/or the Solvency II regulatory regime in the future. This will, however, entail an increased regulatory workload and capital expenditure. "Argenta Holdings plc" is a stand-alone subsidiary in the United Kingdom and already authorised as a member of Lloyd's. Furthermore, the business volume transacted with the EU is minimal with a premium share of less than 5%. Argenta will therefore be affected only marginally. We also write business in the United Kingdom through Group companies in Hannover and Ireland. In this regard we do not anticipate any significant changes as a result of Brexit.

All in all, our current analyses indicate that the implications of Brexit are manageable for the Hannover Re Group.

US tax reform: The changes in tax legislation adopted by the US administration at the end of 2017 entered into force on 1 January 2018. They provide for new tax regulations that have far-reaching implications for subsidiaries operating in the United States. On the one hand, the reform cuts the corporate tax rate from 35% to 21%. On the other hand, the legislative package includes the introduction of the so-called "Base Erosion and Anti-Abuse Tax" (BEAT). In this connection, premiums for ceded insurance risks within the corporate group are also included in the taxable base and will in future be taxed at a rate of 5% - 12.5% (rising over the next nine years). We have already undertaken some restructuring activities within the Group and initiated further steps in order to avert this increased burden of taxation.

Risks from electronic data retention: Recent years have seen the increasing emergence of risks relating to electronic systems and their data. Hannover Re, in common with other companies, is at risk of attacks on its IT systems and has put in place extensive safeguards. Furthermore, Hannover Re offers reinsurance coverage for risks connected with electronic systems and the associated data. The dynamic pace of developments in the context of digitalisation presents a particular challenge to the assessment of such risks.

Natural catastrophe risks and climate change: 2017 was notable for an above-average number of natural disasters. The largest insured losses resulted from the three hurricanes in the Atlantic, the cyclone in Australia and the two earthquakes in Mexico. For Hannover Re, too, these events constituted major losses. All these events were optimally reflected in the assumptions underlying the natural perils models which are used for pricing and managing natural catastrophe risks. The possibility that the increased storm activity is due to progressive global warming cannot be ruled out. Hannover Re works together with partners to closely monitor the implications of global warming for extreme weather events so as to be able to incorporate the insights obtained into the models.

Increase in risks from US mortality business: In view of a renewed deterioration in the performance, most notably, of the large block of business acquired by Hannover Re at the beginning of 2009, the technical provisions calculated in accordance with IFRS and in the economic balance sheet according to Solvency II were reassessed by a project set up specifically for this purpose. This resulted in a substantial increase in the technical provisions under Solvency II. Under IFRS the provisions continued to be calculated according to the lock-in principle because the value in force (VIF) of the book of US mortality business remained positive overall.

Risk capital

In the interests of our shareholders and clients we strive to ensure that our risks remain commensurate with our capital resources. Our quantitative risk management provides a uniform framework for the evaluation and steering of all risks affecting the company as well as of our capital position. In this context, the internal capital model is the central tool and constitutes a stochastic enterprise model. It covers all subsidiaries and business groups of the Hannover Re Group. The core variable in risk and enterprise management is the economic equity, which is calculated according to market-consistent measurement principles and also constitutes the basis for calculating the own funds under Solvency II. Hannover Re's internal capital model reflects all risks that influence the development of the economic equity. These are split into underwriting risks, market risks, counterparty default risks and operational risks. For each of these risk classes we have identified a number of risk factors for which we define probability distributions. These risk factors include, for example, economic indicators such as interest rates, exchange rates and inflation indices, but also insurance-specific indicators such as the mortality of a particular age group within our portfolio of insureds in a particular country or the number of natural catastrophes in a certain region and the insured loss amount per catastrophe. The specification of the probability distributions for the risk factors draws upon historical and publically available data as well as on the internal data resources of the Hannover Re Group. This process is further supplemented by the know-how of internal and external experts. The fit of the probability distributions is regularly checked by our specialist departments, although more importantly it is also verified in the context of the regular, company-wide use of the capital model when assessing risks and allocating the cost of capital. Hannover Re calculates the required risk capital as the Value at Risk (VaR) of the economic change in value over a period of one year with a confidence level of 99.97%. This reflects the goal of not exceeding a one-year ruin probability of 0.03%. The internal target capitalisation of the Hannover Re Group is therefore significantly higher than the confidence level of 99.5% required under Solvency II. For its capitalisation under Solvency II Hannover Re has set as a limit a capital adequacy ratio of 180% and as a threshold a capital adequacy ratio of 200%.

The capitalisation prescribed by regulatory requirements diverges from the capitalisation shown in accordance with the Hannover Re Group's internal capital model. Since approval was given last year to use the model for operational risks, the difference rests solely in the Solvency II stipulations that non-controlling interests cannot be fully recognised. The solvency ratio calculated in accordance with Solvency II stood at 260.3% as at 31 December 2017.

Hannover Re is thus well capitalised and our available capital comfortably exceeds the required capital, both from the economic and the regulatory perspective:

Available capital and required risk capital M 57

in EUR million	31.12.2017 (economic)		31.12.2017 (Solvency II)[1]	31.12.2016 (economic)		31.12.2016 (Solvency II)[2]
Available economic capital / Eligible capital	13,041.8		12,309.9	13,461.0		12,835.3
Confidence level	**99.97%**	**99.5%**	**99.5%**	**99.97 %**	**99.5 %**	**99.5 %**
Required risk capital / Solvency capital requirement	9,877.3	4,729.0	4,729.0	10,381.7	5,149.5	5,585.9
Excess capital	3,164.5	8,312.8	7,580.9	3,079.3	8,311.5	7,249.4
Capital adequacy ratio	132.0%	275.8%	260.3%	129.7 %	261.4 %	229.8 %

1 The figures are based on the Solvency II reporting as at 31 December 2017. The calculation of the Group risk margin, which according to Solvency II requirements is the sum of the risk margins of the solo entities, already uses the new internal operational risk model for the solo entities which is currently undergoing the regulatory approval process. The audit procedures of the independent auditors relating to the Solvency II reporting have still to be completed.

2 Minor differences for 31 December 2016 compared to the Annual Report 2016. Figures based on final Solvency II year-end reporting as presented in the Solvency and Financial Condition Report.

The figures shown above refer to the Hannover Re Group. In addition, Hannover Rück SE is also subject to regulatory capital requirements, which in accordance with Solvency II reporting were clearly fulfilled as at 31 December 2017 with a solvency ratio of 267.1% (the audit procedures conducted by the independent auditor in relation to Solvency II reporting have still to be completed). In this context, the internal operational risk model which is undergoing the regulatory approval process was used to determine the risk margin and the indicators in relation to the solvency capital requirement for Hannover Rück SE. The solvency ratio of Hannover Rück SE is normally higher than the solvency ratio of the Hannover Re Group because there are no restrictions with regard to the use of own funds attributable to non-controlling interests.

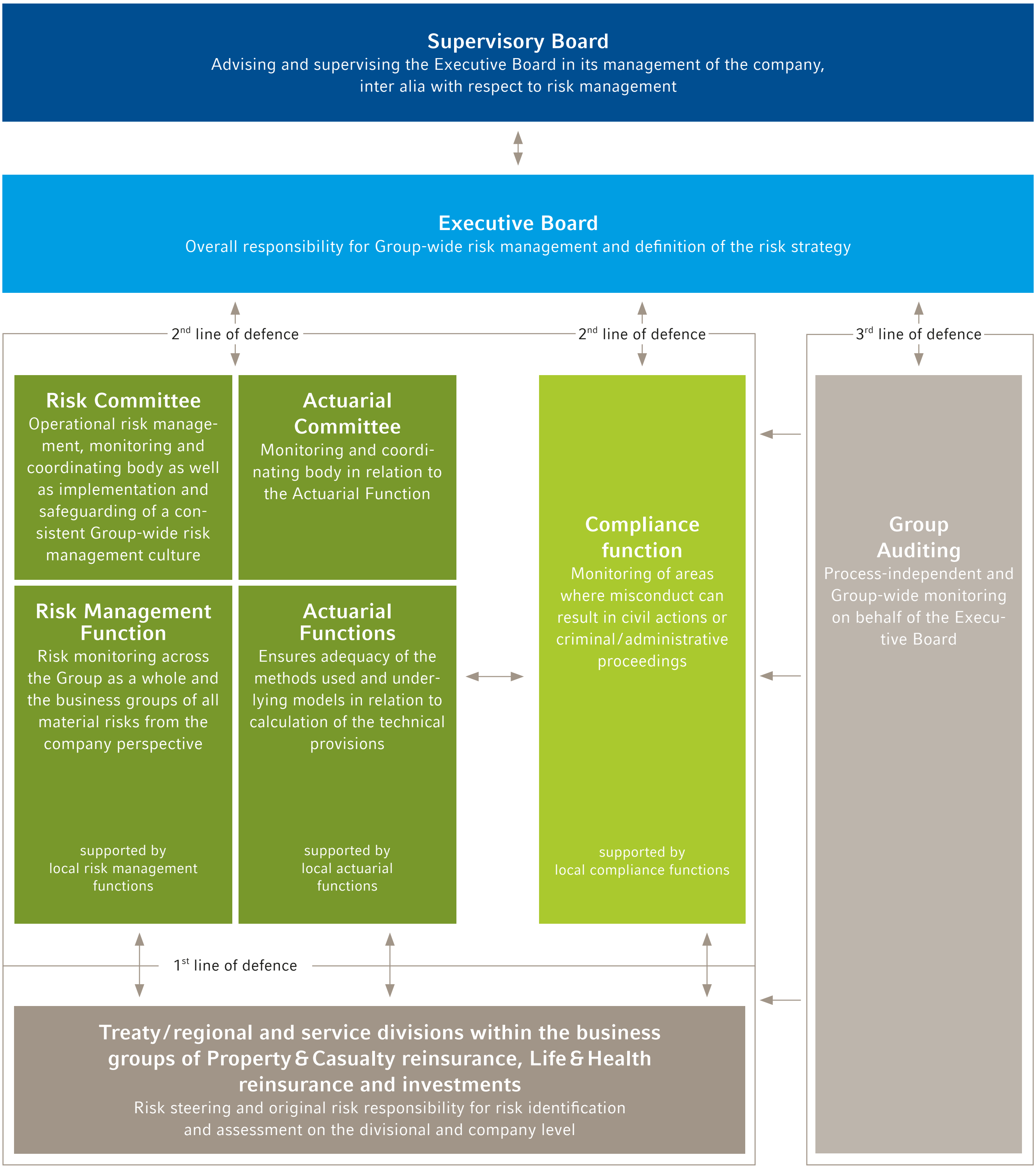
We hold additional capital above all to meet the requirements of the rating agencies for our target rating and to be able to act flexibly on business opportunities. We strive for a rating from the rating agencies most relevant to our industry that facilitates and secures our access to all reinsurance business worldwide. Hannover Re is analysed by the rating agencies Standard & Poor's (S & P) and A.M. Best as part of an interactive rating process. The current financial strength ratings are assessed as "AA-" (Very Strong, stable outlook) by Standard & Poor's and "A+" (Superior, stable outlook) by A.M. Best. Standard & Poor's evaluates Hannover Re's risk management as "Very Strong", the best possible rating.

In awarding these ratings the agencies highlighted the company's very good risk management, the consistent and systematic implementation of corporate strategy by management and its excellent capital resources. Hannover Re's internal capital model was also subjected to expert appraisal. As a result of this review, Standard & Poor's factors the results of the Hannover Re Group's internal capital model into the determination of the target capital for the rating.

Organisation and processes of risk management

Hannover Re has set up risk management functions and bodies Group-wide to safeguard an efficient risk management system. The organisation and interplay of the individual functions in risk management are crucial to our internal risk steering and control system. The central functions of risk management are closely interlinked in our system and the roles, tasks and reporting channels are clearly defined and documented in terms of the so-called "3 lines of defence". The first line of defence consists of risk steering and the original risk responsibility on the divisional or company level. Risk management ensures the second line of defence – risk monitoring. It is supported in this regard by the actuarial function and the compliance function. The third line of defence is the process-independent monitoring performed by the internal audit function. The following chart provides an overview of the central functions and bodies within the overall system as well as of their major tasks and powers.

Central functions of risk monitoring and steering M 58



Group-wide risk communication and an open risk culture are important to our risk management. Regular global meetings attended by the actuarial units and risk management functions serve as a major anchor point for strategic considerations in relation to risk communication. In addition, risk management requirements are formulated in guidelines that are communicated throughout the organisation.

Key elements of our risk management system

Our risk strategy and our Risk and Capital Management Guideline including the system of limits and thresholds for material risks of the Hannover Re Group describe the central elements of our risk management system. This is subject to a constant cycle of planning, action, control and improvement. Systematic risk identification, analysis, measurement, steering and monitoring as well as risk reporting are especially crucial to the effectiveness of the system as a whole.

This guideline describes, among other things, the major tasks, rights and responsibilities, the organisational framework conditions and the risk control process. The rules, which are derived from the corporate strategy and the risk strategy, additionally take account of the regulatory minimum requirements for risk management as well as international standards and developments relating to appropriate enterprise management.

Risk-bearing capacity concept

The establishment of the risk-bearing capacity involves determining the total available risk coverage potential and calculating the funds required to cover all risks. This is done in conformity with the parameters of the risk strategy and the risk appetite defined by the Executive Board. The quantitatively measurable individual risks and the risk position as a whole are evaluated using our risk model. A central system of limits and thresholds is in place to monitor material risks. This system incorporates – along with other risk-related key figures – in particular the indicators derived and calculated from the risk-bearing capacity. Adherence to the overall risk appetite is verified on an ongoing basis.

Risk identification

A key source of information for monitoring risks is the risk identification carried out on a periodic basis. All identified risks are documented in a central register containing all material risks. Risk identification takes the form of, among other things, structured assessments, interviews or scenario analyses. External insights such as recognised industry know-how from relevant bodies or working groups are incorporated into the process. Risk identification is important for ensuring that our risk management consistently remains up-to-date.

Risk analysis and assessment

In principle, every risk that is identified and considered material is quantitatively assessed. Only risk types for which quantitative risk measurement is currently impossible or difficult are qualitatively assessed (e. g. strategic risks, reputational risks or emerging risks). Qualitative assessment can take the form of, for example, expert evaluations. Quantitative assessment of material risks and the overall risk position is performed using Hannover Re's internal capital model. The model makes allowance for risk concentration and risk diversification.

Risk steering

The steering of all material risks is the task of the operational business units on the divisional and company level. In this context, the identified and analysed risks are either consciously accepted, avoided or minimised. The risk/reward ratio is factored into the division's decision. Risk steering is assisted by the parameters of the central and local underwriting guidelines and by defined limits and thresholds.

Risk monitoring

The monitoring of all identified material risks is a core function of risk management. This includes, inter alia, monitoring execution of the risk strategy as well as adherence to the defined limits and thresholds and to risk-related methods and processes. A further major task of risk monitoring is the ascertainment of whether risk steering measures were carried out and whether the planned effect of the measures is sufficient.

Risk communication and risk culture

Risk management is firmly integrated into our operational processes. It is assisted by transparent risk communication and the open handling of risks as part of our risk culture. Risk communication takes the form, for example, of internal and external risk reports, information on current risk complexes in the intranet and training opportunities for staff. The regular sharing of information between risk-steering and risk-monitoring units is also fundamental to the proper functioning of risk management.

Risk reporting

Our risk reporting provides systematic and timely information about all material risks and their potential implications. The central risk reporting system consists primarily of regular risk reports, e.g. on the overall risk situation, adherence to the parameters defined in the risk strategy or on the capacity utilisation of natural catastrophe scenarios. Complementary to the regular risk reporting, immediate internal reporting on material risks that emerge at short notice takes place as necessary. The already existing range of risk reports was supplemented by further reports in the context of Solvency II requirements and the associated Pillars II and III. In this regard Hannover Re has made considerable efforts in recent years to already incorporate into its IFRS reporting the foreseeable contents of the public SFCR.

Process-integrated/-independent monitoring and quality assurance

Irrespective of internally assigned competencies, the Executive Board is responsible for the orderly organisation of the company's business. This also encompasses monitoring of the internal risk steering and control system. Process-independent monitoring and quality assurance of risk management is carried out by the internal audit function and external instances (regulators, independent auditors and rating agencies). Most notably, the independent auditors review the trigger mechanism and the internal monitoring system. The risk management system is rounded off with process-integrated procedures and rules, such as those of the internal control system.

Internal control system

We organise our business activities in such a way that they are always in conformity with all legal requirements. The internal control system (ICS) is an important subsystem that serves, among other things, to secure and protect existing assets, prevent and reveal errors and irregularities and comply with laws and regulations. The core elements of Hannover Re's ICS are documented in a guideline that establishes a common understanding of the differentiated execution of the necessary controls. In the final analysis, it is designed to systematically steer and monitor the implementation of our corporate strategy. The guideline defines concepts, stipulates responsibilities and provides a guide for the description of controls. In addition, it forms the basis for the accomplishment of internal objectives and the fulfilment of external requirements imposed on Hannover Re. The ICS consists of systematically structured organisational and technical measures and controls within the enterprise. This includes, among other things:

- the principle of dual control,
- separation of functions,
- documentation of the controls within processes,
- and technical plausibility checks and access privileges in the IT systems.

The proper functioning of the ICS necessitates the involvement of management, executive staff and employees on all levels.

The financial reporting of the parent company and the Group must satisfy international and national financial reporting standards as well as regulatory requirements. This is safeguarded in the area of accounting and financial reporting by processes with integrated controls which ensure the completeness and accuracy of the annual and consolidated financial statements. A structure made up of differentiated criteria, control points and materiality thresholds assures our ability to identify and minimise the risk of material errors in the annual and consolidated financial statements at an early stage.

We use a central IT solution with standardised accounting and consolidation processes, posting rules and interfaces for data delivery in order to draw up the consolidated financial statement. Access rights for the reporting systems are assigned through an approval process. All components of the accounting-related internal control system, the processes for the organisation and implementation of consolidation tasks and for the preparation of the consolidated financial statement as well as the accompanying controls are consistently documented. In order to safeguard and continuously improve the adequacy of the control system it is subject to regular review and evaluation. In this regard, the internal audit function ensures that the quality of the control system is constantly monitored. All relevant accounting principles are collated in a Group Accounting Manual that sets out uniform Group-wide rules for the recognition, measurement and reporting of items in the consolidated financial statement. The process for updating and, if necessary, adjusting these rules is clearly regulated with respect to information channels, responsibilities and period of validity. Not only that, we provide prompt Group-wide notification of significant developments and modified requirements in Group financial reporting.

Within the scope of our control system the Group companies are responsible for Group-wide adherence to the accounting policies and the internal control guidelines. The managing directors and chief financial officers of the Group companies defined as material in our control system affirm to the Executive Board of Hannover Rück SE at each closing date the completeness, correctness and reliability of the financial data that they pass on to Group Accounting. Data for the preparation of the consolidated financial statement is delivered using a networked IT application. The relevant data for Group financial reporting is collected in a database and processed via automatic interfaces in a consolidation system. As part of the financial reporting process we perform preventive and detective checks on the reported figures in order to minimise the probability and reduce the impacts of a potentially incorrect disclosure. Depending upon the results of our checks, these figures can be corrected if necessary. Given that our Group financial reporting is heavily dependent on IT systems, these systems also need to be subject to controls. Authorisation concepts regulate system access and for each step content-based as well as system-side checks have been implemented, by means of which errors are analysed and promptly eliminated.

Risk landscape of Hannover Re

In the context of its business operations the Hannover Re Group enters into a broad variety of risks. These risks are deliberately accepted, steered and monitored in order to be able to act on the associated opportunities. The parameters and decisions of the Executive Board with respect to the risk appetite of the Hannover Re Group, which are based on the calculations of risk-bearing capacity, are fundamental to the acceptance of risks. Through our business operations on all continents and the diversification between our Property & Casualty and Life & Health reinsurance business groups we are able to effectively allocate our capital in light of opportunity and risk considerations and generate a higher-than-average return on equity. Along with our principal business operations as a reinsurer of property & casualty and life & health business, we also transact primary insurance in selected niche markets as a complement to our core reinsurance business. With this approach we are well positioned for further profitable growth. In this context crucial importance attaches to our risk management in order to ensure that, among other things, risks to the reinsurance portfolio remain calculable and also exceptional major losses do not have an unduly adverse impact on the result.

The risk landscape of Hannover Re encompasses:

- underwriting risks in property & casualty and life & health reinsurance which originate from our business activities and manifest themselves inter alia in fluctuations in loss estimates as well as in unexpected catastrophes and changes in biometric factors such as mortality,
- market risks which arise in connection with our investments and also as a consequence of the valuation of sometimes long-term payment obligations associated with the technical account,
- counterparty default risks resulting from our diverse business relationships and payment obligations inter alia with clients, retrocessionaires and banks,
- operational risks which may derive, for example, from deficient processes or systems and
- other risks, such as reputational and liquidity risks.

At the present time our most significant risks are the default and spread risks within the market risks, the reserving and catastrophe risks within the underwriting risks of property and casualty reinsurance and the risk of changes in mortality within the underwriting risks of life and health reinsurance. With regard to mortality risks, as a general principle annuity portfolios are impacted by improvements in mortality while death benefit portfolios are adversely affected by deteriorations in mortality.

The specific risk characteristics and the principal monitoring and steering mechanisms are described in the following sections.

Risk landscape of Hannover Re **M 59**

Internal risk assessment

In this section we compare the available economic capital with the required risk capital in greater detail. Hannover Re calculates the economic equity as the difference between the market-consistent value of the assets and the market-consistent value of the liabilities. While fair values are available for most investments, the market-consistent valuation of reinsurance treaties necessitates a specific valuation model. We establish the market-consistent value of technical items as the present value of projected payments using actuarial methods. This is adjusted by a risk loading that factors in the fluctuation in future payments. Such fluctuations result from risks that cannot be hedged by means of capital market products, such as underwriting risks. For the discounting of future cash flows we use the risk-free basic yield curves without volatility adjustment or matching adjustment calculated in accordance with Solvency II rules. Market prices for options and guarantees embedded in insurance contracts are determined or approximated using option valuation models from the field of financial mathematics. The volume of these options and guarantees in our portfolio is, however, comparatively slight. The adjustments for assets under own management shown in the following table indicate the difference between fair value and book value of those investments recognised under IFRS at book values. Other adjustments encompass above all the deferred taxes. The available economic capital, which is available as liable capital for policyholders, is composed of the economic equity and the hybrid capital and includes the deduction of foreseeable dividends as required by Solvency II. Hybrid capital is recognised at market-consistent value as required by Solvency II, with changes in the own credit risk not being included in the valuation.

The available economic capital decreased to EUR 13,041.8 million as at 31 December 2017, compared to EUR 13,461.0 million as at 31 December 2016 (pursuant to the Solvency II year-end reporting for 31 December 2016). The primary factor here was the general strengthening of the euro, especially against the US dollar. Shareholders' equity held in foreign currencies consequently has a diminished value in euro. The reconciliation from measurement under IFRS to measurement under Solvency II is broadly stable, with underlying effects such as interest rate changes and other changes in the technical provisions largely cancelling each other out.

Reconciliation (economic capital/shareholders' equity) M 60

in EUR million	31.12.2017[1]	31.12.2016[2]
Shareholders' equity including minorities	9,286.6	9,740.5
Adjustments for assets under own management	502.7	513.4
Adjustments for technical provisions[3]	3,980.6	3,846.5
Adjustments due to tax effects and other	(1,698.4)	(1.648,7)
Economic equity	**12,071.5**	**12,451.8**
Hybrid capital	1,626.1	1,656.1
Foreseeable dividends	(655.8)	(647.0)
Available economic capital	**13,041.8**	**13,461.0**

[1] The figures are based on the Solvency II reporting as at 31 December 2017. The calculation of the Group risk margin, which according to Solvency II requirements is the sum of the risk margins of the solo entities, already uses the new internal operational risk model for the solo entities which is currently undergoing the regulatory approval process. The audit procedures of the independent auditors relating to the Solvency II reporting have still to be completed.

[2] Minor changes for 31 December 2016 compared to annual report 2016. Figures based on final Solvency II year-end reporting as presented in the Solvency and Financial Condition Report.

[3] Adjustments for technical provisions incl. risk margin.

The required risk capital of the Hannover Re Group with the target confidence level of 99.5% decreased to EUR 4,729.0 million as at 31 December 2017, compared to EUR 5,149.5 million as at 31 December 2016. As with the shareholders' equity, a key driver of the reduction here is the stronger euro against our major foreign currencies, especially the US dollar, and the associated lower foreign-currency volumes underlying the risks, including for example the volume of investments. In addition, lower market risks led to a decrease in the risk capital. With regard to regulatory capital requirements, the integration of the operational risk model – which was approved last year – also contributed to an increase in the Solvency II capital adequacy ratio.

As far as the market risks are concerned, last year's reduction of the equity quota in the investment portfolio and lower spreads – along with volume effects driven by exchange rate movements – resulted in diminished volatility overall and hence less risk.

The underwriting risks in property and casualty reinsurance decreased primarily as a consequence of the weaker US dollar against the euro and slightly improved diversification within property and casualty reinsurance. The underwriting risks in life and health reinsurance increased owing to higher mortality risks due to more robust assumptions and model changes. The decrease in counterparty default risks is principally the result of a lower volume of receivables due from ceding companies and retrocessionaires as well as reduced volatility of the modelled losses.

The increase in operational risks can be attributed to a refined expert valuation.

The loss-absorbing effect of taxes and the diversification effect remained stable.

The internal capital model is based on current methods from actuarial science and financial mathematics. In the case of underwriting risks, we are able to draw on a rich internal data history to estimate the probability distributions, e.g. for the reserve risk. For risks from natural perils we use external models, which are adjusted in the context of a detailed internal review process such that they reflect our risk profile as closely as possible. In the area of life and health reinsurance long-term payment flows are modelled under various scenarios. With respect to all the aforementioned risks we use internal data to define scenarios and probability distributions. The internal data is enhanced by way of parameters set by our internal experts. These parameters are especially significant in relation to extreme events that have not previously been observed.

When it comes to aggregating the individual risks, we make allowance for dependencies between risk factors. Dependencies arise, for example, as a consequence of market shocks, such as the financial crisis, which simultaneously impact multiple market segments. What is more, several observation periods may be interrelated on account of market phenomena such as price cycles. In dealing with these dependencies, however, it is our assumption that not all extreme events occur at the same time. The absence of complete dependency is referred to as diversification. Hannover Re's business model is based inter alia on building up the most balanced possible portfolio so as to achieve the greatest possible diversification effects and in order to deploy capital efficiently. Diversification exists between individual reinsurance treaties, lines, business segments and risks. We define the cost of capital to be generated per business unit according to the capital required by our business segments and lines and based on their contribution to diversification.

Required risk capital M 61

in EUR million	31.12.2017 Confidence level 99.5%	31.12.2016 Confidence level 99.5%
Underwriting risk property and casualty reinsurance	3,485.4	3,552.9
Underwriting risk life and health reinsurance	2,354.7	2,117.9
Market risk	3,462.2	4,225.4
Counterparty default risk	282.0	296.5
Operational risk	637.0	503.9
Diversification	(3,710.2)	(3,773.8)
Tax effects	(1,782.1)	(1,773.3)
Required risk capital of the Hannover Re Group	**4,729.0**	**5,149.5**

The required risk capital with a confidence level of 99.5% reflects the loss from the respective risk that with a probability of 0.5% will not be exceeded. The risk capital required for specific risks is shown in each case before tax.

Underwriting risks in property and casualty reinsurance

Risk management in property and casualty reinsurance has defined various overall guidelines for efficient risk steering. These include, among other things, the use of retrocessions to reduce volatility and conserve capital. It is also crucially important to consistently maximise the available risk capacities on the basis of the risk management parameters of the Hannover Re Group and to steer the acceptance of risks systematically through the existing central and local underwriting guidelines. Our conservative reserving level is a key factor in our risk management. We make a fundamental distinction between risks that result from business operations of past years (reserve risk) and those stemming from activities in the current or future years (price/premium risk). In the latter case, special importance attaches to the catastrophe risk.

Diversification within the Property & Casualty reinsurance business group is actively managed through allocation of the cost of capital according to the contribution made to diversification. A high diversification effect arises out of the underwriting of business in different lines and different regions with different business partners. In addition, the active limitation of individual risks – such as natural catastrophes – enhances the diversification effect. The risk capital with a confidence level of 99.5% for underwriting risks in property and casualty reinsurance breaks down as follows:

Required risk capital[1] for underwriting risks property and casualty reinsurance M 62

in EUR million	31.12.2017	31.12.2016
Premium risk (including catastrophe risk)	2,472.0	2,470.4
Reserve risk	2,253.8	2,281.8
Diversification	(1,240.4)	(1,199.3)
Underwriting risk property and casualty	**3,485.4**	**3,552.9**

[1] Required risk capital at a confidence level of 99.5%

The largest share of the required risk capital for the premium risk (including catastrophe risk) is attributable to risks from natural disasters. The following table shows the required risk capital for our four largest natural hazards scenarios:

Required risk capital[1] for the four largest natural hazards scenarios M 63

in EUR million	2017	2016
Hurricane US/Caribbean	1,605.6	1,477.3
Earthquake US West Coast	1,071.2	1,035.8
Winter storm Europe	665.1	698.8
Earthquake Japan	613.9	750.4

[1] Required risk capital with a confidence level of 99.5% on an aggregate annual loss basis

The reserve risk, i. e. the risk of under-reserving losses and the resulting strain on the underwriting result, is a high priority in our risk management. We attach importance to maintaining a conservative reserving level. In order to counter the risk of under-reserving we calculate our loss reserves based on our own actuarial estimations and establish, where necessary, additional reserves supplementary to those posted by our cedants as well as the segment reserve for losses that have already occurred but have not yet been reported to us. Liability claims have a major influence on the segment reserve. The segment reserve is calculated on a differentiated basis according to risk categories and regions. The segment reserve established by the Hannover Re Group amounted to EUR 6,927.9 million in the year under review.

The statistical run-off triangles are another monitoring tool used by our company. They show the changes in the reserve over time as a consequence of paid claims and in the recalculation of the reserves to be established as at each balance sheet date. Their adequacy is monitored using actuarial methods.

Our own actuarial calculations regarding the adequacy of the reserves are also subject to annual quality assurance reviews conducted by external firms of actuaries and auditors. For further remarks on the reserve risk please see our comments in section 6.7 "Technical provisions" on page 211 et seq.

In the case of asbestos- and pollution-related claims it is difficult to reliably estimate future loss payments. The adequacy of these reserves can be estimated using the so-called "survival ratio". This ratio expresses how many years the reserves would cover if the average level of paid claims over the past three years were to continue.

Survival ratio in years and reserves for asbestos-related claims and pollution damage **M 64**

	2017			2016		
in EUR million	Individual loss reserves	IBNR reserves	Survival ratio in years	Individual loss reserves	IBNR reserves	Survival ratio in years
Asbestos-related claims/ pollution damage	20.1	155.3	27.2	35.5	210.5	24.6

In order to partially hedge inflation risks Hannover Re holds securities in its portfolio with inflation-linked coupons and redemption amounts. An inflation risk exists particularly inasmuch as the liabilities (e.g. loss reserves) could develop differently than assumed at the time when the reserve was constituted because of inflation. The specified bonds protect these parts of the loss reserves against inflation risks.

For the purpose of assessing our material catastrophe risks from natural hazards (especially earthquake, windstorm and flood) we use licensed scientific simulation models, supplemented by the expertise of our own specialist departments, that deliver probability distributions for losses from natural catastrophes. The monitoring of the risks resulting from natural hazards is rounded out by scenario analyses. Major scenarios and stress tests are shown below.

Stress tests for natural catastrophes after retrocessions **M 65**

Aggregate annual loss in EUR million	2017	2016
	Effect on forecast net income	
Winter storm Europe		
100-year loss	(378.2)	(391.4)
250-year loss	(542.5)	(541.4)
Hurricane US/Caribbean		
100-year loss	(921.0)	(850.3)
250-year loss	(1,274.8)	(1,139.4)
Typhoon Japan		
100-year loss	(183.1)	(223.9)
250-year loss	(256.6)	(281.9)
Earthquake Japan		
100-year loss	(282.2)	(363.1)
250-year loss	(522.0)	(623.5)
Earthquake US West Coast		
100-year loss	(420.2)	(440.6)
250-year loss	(921.7)	(795.4)
Earthquake Australia		
100-year loss	(154.4)	(201.0)
250-year loss	(445.3)	(432.3)

Within the scope of this process, the Executive Board defines the risk appetite for natural perils once a year on the basis of the risk strategy by specifying the portion of the economic equity that is available to cover risks from natural perils. This is a key basis for our underwriting approach in this segment and served to significantly cushion, for example, the strain from this risk category in 2017. As part of our holistic approach to risk management across business groups, we take into account numerous relevant scenarios and extreme scenarios, determine their effect on portfolio and performance data, evaluate them in relation to the planned figures and identify alternative courses of action.

For the purposes of risk limitation, maximum amounts are also stipulated for various extreme loss scenarios and return periods in light of profitability criteria. Risk management ensures adherence to these maximum amounts. The Executive Board, Risk Committee and P&C Executive Committee are kept regularly updated on the degree of capacity utilisation. The limits and thresholds for the 200-year aggregate loss as well as the utilisation thereof are set out in the following table:

Limit and threshold for the 200-year aggregate annual loss as well as utilisation thereof M 66

in EUR million	Limit 2017	Threshold 2017	Actual utilisation (July 2017)
All natural catastrophe risks [1]			
200-year aggregate annual loss	1,815	1,634	1,409

[1] Loss relative to the underwriting result

Net expenditure on major losses in the year under review amounted to EUR 1,127.3 million (EUR 626.6 million). Our company incurred the following catastrophe losses and major claims in the 2017 financial year:

Catastrophe losses and major claims [1] in 2017 M 67

in EUR million	Date	gross	net
Hurricane “Irma”, United States	5–13 September 2017	597.9	342.6
Hurricane “Maria”, United States	18–21 September 2017	413.8	284.7
Hurricane “Harvey”, United States	23–31 August 2017	215.8	122.1
Forest fires, California, United States	7–30 October 2017	212.6	81.9
4 property Claims		119.9	111.3
Cyclone “Debbie”, Australia	27–28 March 2017	63.0	47.8
Earthquake, Mexico	19 September 2017	45.1	40.5
2 credit claims		27.7	27.7
Forest fires, California, United States	3–20 December 2017	27.7	19.2
Forest fires, Chile	21 January–3 February 2017	19.2	17.3
Typhoon “Hato”, China	22–23 August 2017	12.5	9.0
Severe weather/tornado, United States	18–21 January 2017	12.4	9.9
Earthquake, Mexico	7–8 September 2017	11.3	8.7
Severe weather/hail, United States	10–13 June 2017	11.0	4.5
Total		**1,789.9**	**1,127.3**

[1] Natural catastrophes and other major claims in excess of EUR 10 million gross

The price/premium risk lies primarily in the possibility of a random claims realisation that diverges from the claims expectancy on which the premium calculation was based. Regular and independent reviews of the models used for treaty quotation as well as central and local underwriting guidelines are vital management components. We have put in place a multi-step quotation process to ensure the quality of our portfolios:

Ensuring the quality of our portfolios M 68

Step 1

Calculation of the loss expectancy
- Historical loss and exposure analysis
- Changes in the quality of underlying risks
- Changes in the quantity of underlying risks
- Discounting of future cash flows

Step 2

Cost estimation
- Commissions
- Broker fees
- Internal administration

Step 3

Calculation of the cost of capital
- Level of capital allocation determined by volatility of the business covered and contribution to diversification
- Expected return on equity
- Capital structure

In addition, Hannover Re's regional and treaty departments prepare regular reports on the progress of their respective renewals. The reporting in this regard makes reference inter alia to significant changes in conditions, risks (such as inadequate premiums) as well as to emerging market opportunities and the strategy pursued in order to accomplish targets. The development of the combined ratio in property and casualty reinsurance in 2017 and prior years is shown in the table below:

Combined and catastrophe loss ratio M 69

in %	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Combined ratio (property and casualty reinsurance)	99.8	93.7	94.4	94.7	94.9	95.8	104.3	98.2	96.6	95.4
Thereof catastrophe losses [1]	12.3	7.8	7.1	6.1	8.4	7.0	16.5	12.3	4.6	10.7

[1] Net share of the Hannover Re Group for natural catastrophes and other major claims in excess of EUR 10 million gross as a percentage of net premium earned (until 31 December 2011: in excess of EUR 5 million gross)

For further information on the run-off of the loss reserves please see our explanatory remarks in the section "Run-off of the net loss reserve in the property and casualty reinsurance segment" on page 212 et seq.

Underwriting risks in life and health reinsurance

All risks directly connected with the life of an insured person are referred to as biometric risks. They include in particular the miscalculation of mortality, life expectancy, morbidity and occupational disability. Biometric risks are the material risks for our company in the area of life and health reinsurance. Our goal is to strike a balance between biometric risks. Furthermore, we are exposed to lapse risks because the cash flows resulting from our reinsurance treaties are in part dependent on lapse rates among policyholders. Counterparty default risks are also material since we partly prefinance our cedants' new business acquisition costs. Furthermore, we are exposed to catastrophe risks, especially events involving a high number of fatalities in our insurance portfolio.

The reserves are determined on the basis of secure biometric actuarial bases in light of the information provided by our clients. The biometric actuarial bases used and the lapse assumptions are continuously reviewed with an eye to their adequacy and if necessary adjusted. This is done using the company's own empirical data as well as market-specific insights. Our current risk profile in life and health reinsurance is dominated by mortality and longevity risks. This is due to the fact that under some of our contracts we pay death benefits, while under others we pay survival benefits. The volume of our annuity portfolio contributes to diversification within life and health reinsurance. We calculate the diversification effect between mortality and longevity risks prudently in view of the fact that the contracts are normally taken out for different regions, age groups and individuals. The required risk capital with a confidence level of 99.5% for underwriting risks in life and health reinsurance breaks down as follows:

Required risk capital[1] for underwriting risks life and health reinsurance M 70

in EUR million	31.12.2017	31.12.2016
Mortality risk[2]	1,922.0	1,637.4
Longevity risk	1,531.4	1,331.6
Morbidity and disability risk	632.4	395.0
Lapse risk	422.7	603.2
Expense risk	217.1	271.7
Diversification	(2,370.9)	(2,121.0)
Underwriting risk life and health	**2,354.7**	**2,117.9**

1 Required risk capital at a confidence level of 99.5%
2 Mortality risk incl. catastrophe risk

Diversification is a central management tool for our company. We seek to spread risks as far as possible across different risk classes and different regions. In our pricing of reinsurance treaties we provide incentives to further increase diversification.

Through our quality assurance measures we ensure that the reserves established by ceding companies in accordance with local accounting principles satisfy all requirements with respect to the calculation methods used and assumptions made (e.g. use of mortality and morbidity tables, assumptions regarding the lapse rate). In addition, the assumptions are continuously reviewed on the basis of empirical data and modified if necessary. New business is written in all regions in compliance with underwriting guidelines applicable worldwide, which set out detailed rules governing the type, quality, level and origin of risks and how these considerations are factored into the pricing. These global guidelines are revised annually and approved by the Executive Board. Special underwriting guidelines give due consideration to the particular features of individual markets. By monitoring compliance with these underwriting guidelines we minimise the risk of an inability to pay or of deterioration in the financial status of cedants. Regular reviews and holistic analyses (e.g. with an eye to lapse risks) are carried out with respect to new business activities and the assumption of international portfolios. Large transactions are also examined by our risk management department. Individual actuarial reports and documentation ensure that regular scrutiny also takes place on the level of the subsidiaries. The interest rate risk, which in the primary sector is important in life business owing to the guarantees that are given, is of only minimal relevance to our company thanks to the design of our reinsurance treaties. We have confidence in the entrepreneurial abilities of our underwriters and grant them the most extensive possible powers. In our decentralised organisation we manage risks where they arise using a consistent Group-wide approach in order to obtain an overall view of the risks in life and health reinsurance. Our global underwriting guidelines provide underwriters with an appropriate framework for this purpose.

In recent years we have reported regularly on the results of our US mortality business, which have been poorer than anticipated. This was again the case in the 2017 financial year. The reason for this development is the negative earnings performance of a large portfolio that we, as reported at the time, assumed at the beginning of 2009. The other US mortality business is, by contrast, performing satisfactorily and showing good growth. In consequence, this business overall – i. e. including the poorly performing portfolio – shows a positive value in force (VIF). For this reason, in accordance with the lock-in principle, the assumptions made at the time of treaty formation constitute the basis of reserving that is applicable for IFRS accounting purposes.

In view of the unsatisfactory performance of the aforementioned portfolio, we initiated a project at the end of 2016 with the aims of, firstly, reviewing actuarial assumptions relative to emerging experience and, secondly, deploying available means to improve results through inforce management measures on a targeted basis. This primarily involves rate management pursuant to contractual rights, as well as other measures. Based on the information available to us today, we continue to assume a positive VIF for our US mortality business as a whole. This assumption is based in large measure on the value of the cash flows that will be generated through future management actions. Should additional information lead to the determination that this is no longer the case, this would result in a one-off charge to the IFRS result.

The risks arising out of life and health reinsurance are reflected in the internal capital model.

Market risks

Faced with a challenging capital market climate, particularly high importance attaches to preserving the value of assets under own management and the stability of the return. Hannover Re's portfolio is therefore guided by the principles of a balanced risk/return profile and broad diversification. Based on a risk-averse asset mix, the investments reflect both the currencies and durations of our liabilities. Market price risks include equity risks, interest rate risks, foreign exchange risks, real estate risks, default and spread risks. Our portfolio currently consists in large part of fixed-income securities, and hence default and spread risks account for the bulk of the market risk. We minimise interest rate and foreign exchange risks through the greatest possible matching of payments from fixed-income securities with the projected future payment obligations from our insurance contracts. Market risks derive from the investments managed by Hannover Re itself and from investment risks of ceding companies that we assume in connection with insurance contracts. The following table shows the risk capital with a confidence level of 99.5% for the market risks from investments under own and third-party management.

Required risk capital[1] for market risks M 71

in EUR million	31.12.2017	31.12.2016
Default and spread risk	2,403.2	2,827.9
Interest rate risk	1,038.4	1,179.1
Foreign exchange risk	901.1	1,296.5
Equity risk[2]	820.6	1,283.5
Real estate risk	549.5	526.3
Diversification	(2,250.6)	(2,887.9)
Market risk	**3,462.2**	**4,225.4**

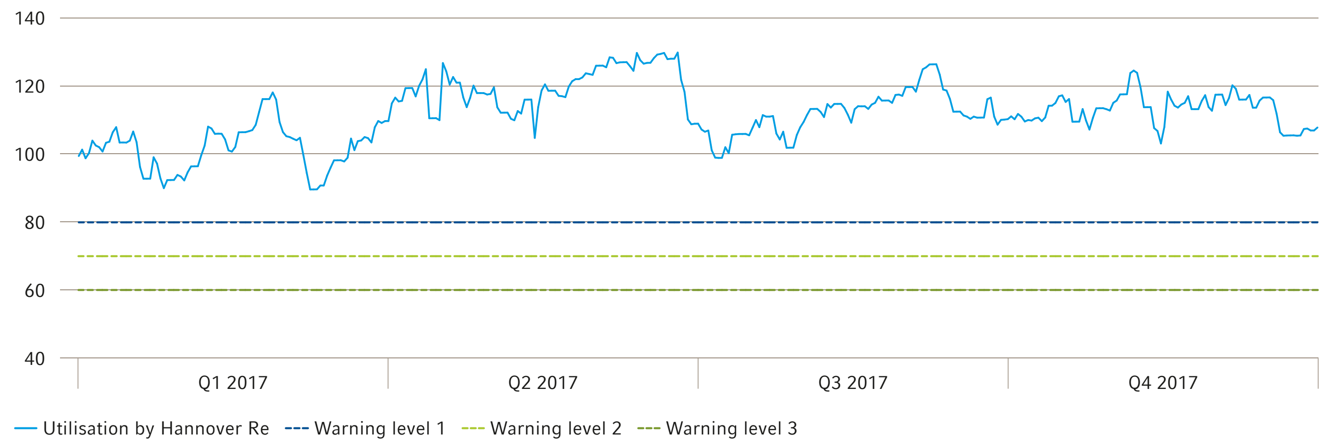
1 Required risk capital at a confidence level of 99.5%
2 Including Private Equity

With a view to preserving the value of our assets under own management, we constantly monitor adherence to a trigger mechanism based on a clearly defined traffic light system that is applied across all portfolios. This system defines clear thresholds and escalation channels for the cumulative fluctuations in fair value and realised gains/losses on investments since the beginning of the year. These are unambiguously defined in conformity with our risk appetite and trigger specified information and escalation channels if a corresponding fair value development is overstepped.

Interest rate and spread markets were relatively stable over the course of the year under review. Despite its conservative posture our investment portfolio benefited modestly from the market movements. Primarily due to lower risk premiums on corporate bonds and declining US dollar interest rates in the long maturities, a significant increase in hidden reserves for fixed-income securities was thus booked over the year as a whole.

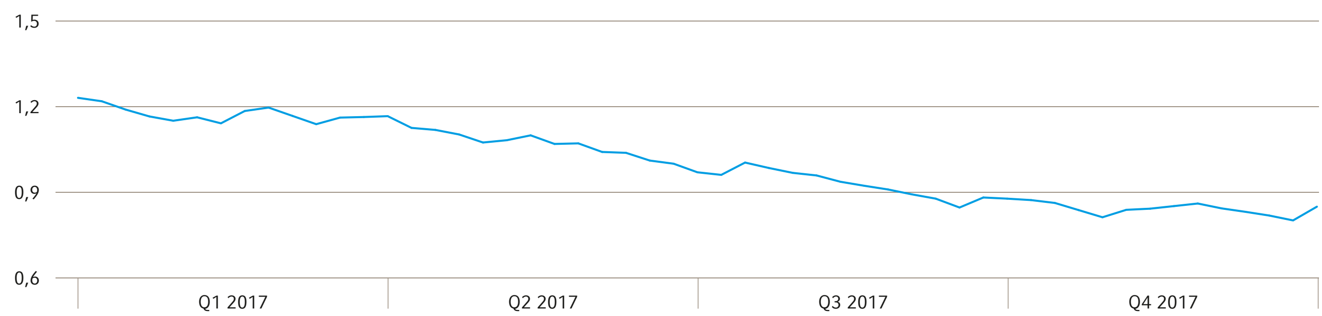
At no time were the escalation levels of the trigger system reached in this connection.

Utilisation of the trigger system M 72
in %



The short-term loss probability measured as the VaR (Value at Risk) is another vital tool used for monitoring and managing market price risks. It is calculated on the basis of historical data, e. g. the volatility of the securities positions under own management and the correlation between these risks. As part of these calculations the decline in the fair value of our portfolio is simulated with a certain probability and within a certain period. The VaR of the Hannover Re Group determined in accordance with these principles specifies the decrease in the fair value of our securities portfolio under own management that with a probability of 95% will not be exceeded within ten trading days. A multi-factor model is used to calculate the VaR indicators for the Hannover Re Group. It is based on time series of selected representative market parameters (equity prices, yield curves, spread curves, exchange rates, commodity prices and macro-economic variables). All asset positions are mapped on the level of individual positions within the multi-factor model; residual risks (e. g. market price risks that are not directly explained by the multi-factor model) can be determined through back-calculation and are incorporated into the overall calculation. The model takes into account interest rate risks, default and spread risks, systematic and specific equity risks, commodity risks and option-specific risks. Against the backdrop of what was still a difficult capital market environment, the volatilities of fixed-income assets, in particular, and hence the market price risks increased in the year under review relative to the previous year. Based on continued broad risk diversification and the orientation of our investment portfolio, our Value at Risk was nevertheless clearly below the Value at Risk upper limit defined in our investment guidelines. It amounted to 0.8% (1.2%) as at the end of the reporting period.

Value at Risk[1] for the investment portfolio of the Hannover Re Group M 73
in %



[1] VaR upper limit according to Hannover Re's investment guidelines: 2.5%

Stress tests are conducted in order to be able to map extreme scenarios as well as normal market scenarios for the purpose of calculating the Value at Risk. In this context, the loss potentials for fair values and shareholders' equity (before tax) are simulated on the basis of already occurred or notional extreme events.

Scenarios for changes in the fair value of material asset classes **M 74**

in EUR million	Scenario	Portfolio change on a fair value basis	Change in equity before tax
Equity securities and private equity	Share prices -10%	-81.4	-81.4
	Share prices -20%	-162.8	-162.8
	Share prices +10%	+81.4	+81.4
	Share prices +20%	+162.8	+162.8
Fixed-income securities	Yield increase +50 basis points	-848.4	-765.2
	Yield increase +100 basis points	-1,652.1	-1,490.0
	Yield decrease -50 basis points	+880.4	+793.5
	Yield decrease -100 basis points	+1,802.9	+1,624.9
Real estate	Real estate market values -10%	-213.9	-112.8
	Real estate market values +10%	+213.9	+42.2

Further significant risk management tools – along with the various stress tests used to estimate the loss potential under extreme market conditions – include sensitivity and duration analyses and our asset/liability management (ALM). The internal capital model provides us with quantitative support for the investment strategy as well as a broad diversity of VaR calculations. In addition, tactical duration ranges are in place, within which the portfolio can be positioned opportunistically according to market expectations. The parameters for these ranges are directly linked to our calculated risk-bearing capacity. Further information on the risk concentrations of our investments can be obtained from the tables on the rating structure of fixed-income securities as well as on the currencies in which investments are held. Please see our comments in section 6.1 of the notes entitled "Investments under own management" on page 195 et seq.

Equity risks derive from the possibility of unfavourable changes in the value of equities, equity derivatives or equity index derivatives in our portfolio. Their relevance to our investments decreased sharply in the year under review, however, because we liquidated our holdings of non-strategic listed equities and equity funds at the end of the third quarter in response to the hurricane events in the Caribbean and the United States as well as the earthquakes in Mexico. In this way we not only made the most of the favourable state of the market, we also reduced our general risk position and freed up capital for potential risk reallocations. Our exposure to the private equity market remains unchanged. Changes in fair value here tend to be prompted less by general market conditions and more by entity-specific assessments. The risks are associated principally with the business model and profitability and less so with the interest rate component in the consideration of cash flow forecasts. Please see our comments in section 6.1 of the notes entitled "Investments under own management" on page 188 et seq.

The portfolio of fixed-income securities is exposed to the interest rate risk. Declining market yields lead to increases and rising market yields to decreases in the fair value of the fixed-income securities portfolio. The credit spread risk should also be mentioned. The credit spread refers to the interest rate differential between a risk-entailing bond and risk-free bond with the same maturity. Changes in these risk premiums, which are observable on the market, result – analogously to changes in pure market yields – in changes in the fair values of the corresponding securities.

Foreign exchange risks are especially relevant if there is a currency imbalance between the technical liabilities and the assets. Through extensive matching of currency distributions on the assets and liabilities side, we reduce this risk on the basis of the individual balance sheets within the Group. The short-term Value at Risk therefore does not include quantification of the foreign exchange risks. We regularly compare the liabilities per currency with the covering assets and optimise the currency coverage by regrouping assets. In so doing, we make allowance for collateral conditions such as different accounting requirements. Remaining currency surpluses are systematically quantified and monitored within the scope of economic modelling. A detailed presentation of the currency spread of our investments is provided in section 6.1 of the notes entitled "Investments under own management" on page 197 et seq.

Real estate risks result from the possibility of unfavourable changes in the value of real estate held either directly or through fund units. They may be caused by a deterioration in particular qualities of a property or by a general downslide in market values. Real estate risks continued to grow in importance for our portfolio owing to our ongoing involvement in this sector. We spread these risks through broadly diversified investments in high-quality markets of Germany, Europe as a whole, the United States and Asia; each investment is preceded by detailed analyses of the property, manager and market concerned.

We use derivative financial instruments only to the extent needed to hedge risks. The primary purpose of such financial instruments is to hedge against potentially adverse developments on capital markets. As in the previous year, a portion of our cash flows from the insurance business as well as foreign exchange risks was hedged using forward exchange transactions because currency matching could not be efficiently achieved. Hannover Re holds further derivative financial instruments to hedge interest rate risks from loans taken out to finance real estate. In addition, Hannover Re has taken out hedges in the form of equity swaps to hedge price risks in connection with the stock appreciation rights granted in 2014 under the Share Award Plan. These are intended to neutralise changes in the fair values of the awarded stock appreciation rights. Contracts are concluded with reliable counterparties and for the most part collateralised on a daily basis so as to avoid credit risks associated with the use of such transactions. The remaining exposures are controlled according to the restrictive parameters set out in our investment guidelines. Our investments entail credit risks that arise out of the risk of a failure to pay (interest and / or capital repayment) or a change in the credit status (rating downgrade) of issuers of securities. We attach equally vital importance to exceptionally broad diversification as we do to credit assessment conducted on the basis of the quality criteria set out in the investment guidelines. We measure credit risks in the first place using the standard market credit risk components, especially the probability of default and the potential amount of loss – making allowance for any collateral and the ranking of the individual instruments depending on their effect in each case.

We then assess the credit risk first on the level of individual securities (issues) and in subsequent steps on a combined basis on the issuer level. In order to limit the risk of counterparty default we set various limits on the issuer and issue level as well as in the form of dedicated rating quotas. A comprehensive system of risk reporting ensures timely reporting to the functions entrusted with risk management.

Rating structure of our fixed-income securities[1] **M 75**

Rating classes	Government bonds		Securities issued by semi-governmental entities[2]		Corporate bonds		Covered bonds / asset-backed securities	
	in %	in EUR million	in %	in EUR million	in %	in EUR million	in %	in EUR million
AAA	75.1	9,083.6	64.9	4,452.2	1.1	128.4	62.8	2,032.8
AA	13.6	1,644.1	23.3	1,593.9	12.8	1,542.5	14.3	462.1
A	5.9	715.7	6.3	429.3	32.6	3,937.7	7.2	233.7
BBB	2.6	319.0	1.4	92.7	44.3	5,370.3	10.5	340.0
<BBB	2.8	339.0	4.1	283.2	9.2	1,116.0	5.2	169.2
Total	**100.0**	**12,101.4**	**100.0**	**6,851.3**	**100.0**	**12,094.8**	**100.0**	**3,237.7**

1 Securities held through investment funds are recognised pro rata with their corresponding individual ratings.
2 Including government-guaranteed corporate bonds

The measurement and monitoring mechanisms that have been put in place safeguard a prudent, broadly diversified investment strategy.

On a fair value basis EUR 3,942.3 million of the corporate bonds held by our company were issued by entities in the financial sector. Of this amount, EUR 3,189.5 million was attributable to banks. The vast majority of these bank bonds (64.3%) are rated “A” or better. Our investment portfolio under own management does not contain any written or issued credit default swaps.

Counterparty default risks

The counterparty default risk consists primarily of the risk of complete or partial failure of the counterparty and the associated default on payment. The following table shows the required risk capital for counterparty defaults with a confidence level of 99.5%.

Required risk capital[1] counterparty default risk M76

in EUR million	31.12.2017	31.12.2016
Counterparty default risk	282.0	296.5

1 Required risk capital at a confidence level of 99.5%

Since the business that we accept is not always fully retained, but instead portions are retroceded as necessary, the counterparty default risk is also material for our company in reinsurance transactions. Our retrocession partners are carefully selected and monitored in light of credit considerations in order to keep the risk as small as possible. This is also true of our broker relationships, which entail a risk inter alia through the potential loss of the premium paid by the cedant to the broker. We minimise these risks, among other things, by reviewing all broker relationships once a year with an eye to criteria such as the existence of professional indemnity insurance, payment performance and proper contract implementation. The credit status of retrocessionaires is continuously monitored. On the basis of this ongoing monitoring a Security Committee decides on measures where necessary to secure receivables that appear to be at risk of default. This process is supported by a Web-based risk management application, which specifies cession limits for the individual retrocessionaires participating in protection cover programmes and determines the capacities still available for short-, medium- and long-term business. Depending on the type and expected run-off duration of the reinsured business, the selection of reinsurers takes into account not only the minimum ratings of the rating agencies Standard & Poor's and A.M. Best but also internal and external expert assessments (e. g. market information from brokers). Overall, retrocessions conserve our capital, stabilise and optimise our results and enable us to act on opportunities across a broader front, e. g. following a major loss event. Regular visits to our retrocessionaires give us a reliable overview of the market and put us in a position to respond quickly to capacity changes. The following table shows how the proportion of assumed risks that we do not retrocede (i. e. that we run in our retention) has changed in recent years:

Gross written premium retained M77

in %	2017	2016	2015	2014	2013
Hannover Re Group	90.5	89.3	87.0	87.6	89.0
Property and casualty reinsurance	89.7	88.5	89.3	90.6	89.9
Life and health reinsurance	91.7	90.4	84.2	83.9	87.7

Alongside traditional retrocessions in property and casualty reinsurance we also transfer risks to the capital market.

Counterparty default risks are also relevant to our investments and in life and health reinsurance, among other things because we prefinance acquisition costs for our ceding companies. Our cedants, retrocessionaires and broker relationships as well as our investments are therefore carefully evaluated and limited in light of credit considerations and are constantly monitored and controlled within the scope of our system of limits and thresholds.

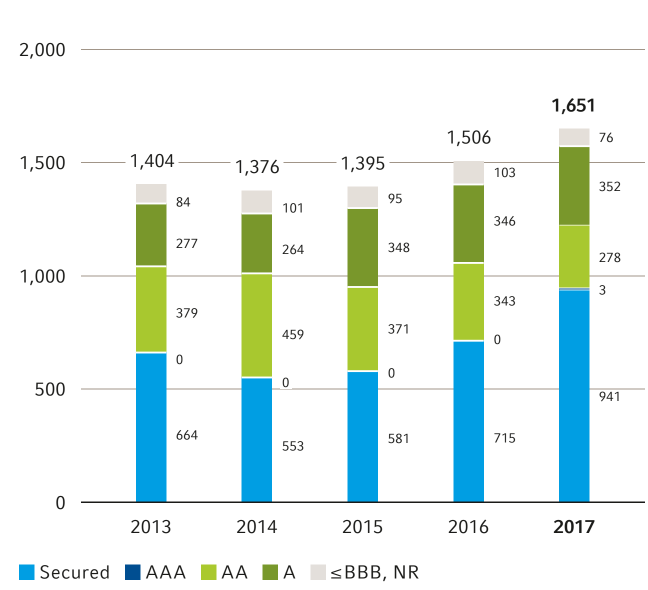
57.0% of our recoverables from reinsurance business are secured by deposits or letters of credit. For the majority of our retrocessionaires we also function as reinsurer, meaning that in most cases recoverables can potentially be set off against our own liabilities. In terms of the Hannover Re Group's major companies, EUR 304.7 million (8.0%) of our accounts receivable from reinsurance business totalling EUR 3,821,1 million were older than 90 days as at the balance sheet date.

The average default rate from retrocessions over the past four years was 0.06%.

Retrocession gives rise to claims that we hold against our retrocessionaires. These reinsurance recoverables – i. e. the reinsurance recoverables on unpaid claims – amounted to EUR 1,651.3 million (previous year: EUR 1,506.3 million) as at the balance sheet date.

The following chart shows the development of our reinsurance recoverables – split by rating quality – due from our retrocessionaires.

Reinsurance recoverables as at the balance sheet date **M 78**
in EUR million



Further remarks on technical and other assets which were unadjusted but considered overdue as at the balance sheet date as well as on significant impairments in the year under review are provided in section 6.4 "Technical assets" on page 205 et seq., section 6.6 "Other assets" on page 208 et seq. and section 7.2 "Investment result" on page 227 et seq.

The amount of assets subject to collateral arrangements is well below 60% of Hannover Re's total assets. This statement is relevant for the calculation of the counterparty default risk with respect to Hannover Re.

Operational risks

Operational risks refer to the risk of losses occurring because of the inadequacy or failure of internal processes or as a result of events triggered by employee-related, system-induced or external factors. In contrast to underwriting risks (e. g. the reserve risk), which we enter into in a deliberate and controlled manner in the context of our business activities, operational risks are an indivisible part of our business activities. The focus is therefore on risk avoidance and risk minimisation. Unlike market, counterparty default and underwriting risks, operational risks are categorised as non-financial risks.

With the aid of the Self-Assessment for Operational Risks we determine the maturity level of our operational risk management system and define action fields for improvements. The assessment is carried out, for example, by assessing the maturity level of the respective risk management function or of the risk monitoring and reporting. The system enables us, among other things, to prioritise operational risks. In order to calculate the capital commitment in our internal capital model we perform extensive scenario analyses and use the findings as a basis for specifying the parameters for the stochastic model.

Required risk capital[1] for operational risks **M 79**

in EUR million	31.12.2017	31.12.2016
Operational risk	637.0	503.9

[1] Required risk capital at a confidence level of 99.5%

Within the overall framework of operational risks we consider, in particular, business process risks including risks associated with deficient data quality, compliance risks including tax risks, risks associated with the outsourcing of functions, fraud risks, personnel risks, information/IT security risks and business interruption risks.

Subcategories of operational risks

- Business process risk (including data quality)
- Compliance risk
- Function outsourcing risk
- Fraud risk
- Personnel risk
- Information and IT security risk
- Business interruption risk

Business process risks are associated with the risk of deficient or flawed internal processes, which can arise as a consequence of an inadequate process organisation. We have defined criteria to evaluate the maturity level of the material processes, e.g. for the reserving process. This enables us to ensure that process risks are monitored. In cooperation with the process participants, the process owner evaluates the risks of the metaprocess and develops measures for known, existing risks. Data quality is a highly critical success factor in this regard. It is monitored inter alia by way of regular automated analyses.

Compliance risks are associated with the risk of breaches of standards and requirements, non-compliance with which may entail lawsuits or official proceedings with not inconsiderable detrimental implications for the business activities of the Hannover Re Group. Compliance with regulatory standards, the company's Code of Conduct, tax regulations, data privacy requirements as well as the stipulations of anti-trust and competition law have been defined as issues of particular relevance.

We use sanctions screening software on parts of the Hannover Re Group's portfolio to filter out individuals who are subject to sanctions on account of a criminal or terrorist background. Suitable steps are taken if such individuals are identified. Business partners are also screened in this way. Responsibilities within the compliance organisation are regulated and documented Group-wide and interfaces with risk management have been put in place. The set of tools is rounded off with regular compliance training programmes. For further information on compliance-related topics, including for example lawsuits, contingent liabilities and commitments, please see section 8.6 "Lawsuits" and section 8.7 "Contingent liabilities and commitments" on page 244 et seq.

Risks associated with the outsourcing of functions can result from such outsourcing of functions, services and/or organisational units to third parties outside Hannover Re. Mandatory rules have been put in place to limit this risk; among other things, they stipulate that a risk analysis is to be performed prior to a material outsourcing. In the context of this analysis a check is carried out to determine, inter alia, what specific risks exist and whether outsourcing can even occur in the first place.

In selected market niches we transact primary insurance business that complements our reinsurance activities. In so doing, just as on the reinsurance side, we always work together with partners from the primary sector – such as insurance brokers and underwriting agencies. This gives rise to risks associated with such distribution channels, although these are minimised through the careful selection of agencies, mandatory underwriting guidelines and regular checks.

The proper functioning and competitiveness of the Hannover Re Group can be attributed in large measure to the expertise and dedication of our staff. In order to minimise personnel risks, we pay special attention to the skills, experience and motivation of our employees and foster these qualities through outstanding personnel development and leadership activities. Regular employee surveys and the monitoring of turnover rates ensure that such risks are identified at an early stage and scope to take the necessary actions is created.

Fraud risks refer to the risk of intentional violations of laws or regulations by members of staff (internal fraud) and/or by externals (external fraud). This risk is reduced by the internal control system as well as by the audits conducted by Group Auditing on a Group-wide and line-independent basis.

Information and IT security risks arise, inter alia, out of the risk of the inadequate integrity, confidentiality or availability of systems and information. By way of example, losses and damage resulting from the unauthorised passing on of confidential information, the malicious overloading of important IT systems or from computer viruses are material to the Hannover Re Group. Given the broad spectrum of such risks, a diverse range of steering and monitoring measures and organisational standards, including for example the requirement to conclude confidentiality agreements with service providers, have been put in place. In addition, our employees are made more conscious of such security risks through practically oriented tools provided online in the intranet, by way of training opportunities and through a staff information campaign.

When it comes to reducing business interruption risks, the paramount objective is the quickest possible return to normal operations after a crisis, for example through implementation of existing contingency plans. Guided by internationally accepted standards, we have defined the key framework conditions and – among other measures – we have assembled a crisis team to serve as a temporary body in the event of an emergency. The system is complemented by regular exercises and tests. A leaflet is available setting out the correct behaviour in the event of a business interruption; this condenses in compact form the key information that all employees need to know, such as the information channels to use in a crisis situation.

Regular quarterly risk reporting to the Risk Committee and the Executive Board takes place with regard to all operational risks. Risks are also evaluated as part of the reporting.

Other risks

Under other risks we include emerging risks, strategic risks, reputational risks and liquidity risks. Reputational risks are categorised as non-financial risks.

Subcategories included under other risks

- Emerging risk
- Strategic risk
- Reputational risk
- Liquidity risk

The hallmark of emerging risks is that the content of such risks cannot as yet be reliably assessed – especially on the underwriting side with respect to our treaty portfolio. Such risks evolve gradually from weak signals to unmistakable tendencies. It is therefore vital to detect these risks at an early stage and then determine their relevance. For the purpose of early detection we have developed an efficient process that spans divisions and lines of business and we have ensured its linkage to risk management. Operational implementation is handled by an expert working group assembled specially for this task. The analyses performed by this working group are used Group-wide in order to pinpoint any necessary measures (e. g. the implementation of contractual exclusions or the development of new reinsurance products). By way of example, risks associated with possible climate change are analysed by this working group. Global warming would affect not only natural perils, but also human health, the world economy, the agricultural sector and much more besides. These problematic issues may also have implications for our treaty portfolio – in the form of not just risks but also opportunities, such as increased demand for reinsurance products. Further examples of emerging risks include technology risks, shortage of resources and supply chain risks.

Strategic risks derive from a possible imbalance between the corporate strategy of the Hannover Re Group and the constantly changing general business environment. Such an imbalance might be caused, for example, by incorrect strategic policy decisions, a failure to consistently implement the defined strategies and business plans or an incorrect allocation of resources. We therefore regularly review our corporate strategy in a multi-step procedure and adjust our processes and the resulting guidelines as and when required. We have defined performance criteria and indicators for operational implementation of the strategic principles and objectives; these are authoritative when it comes to determining fulfilment of the various targets. With the "Strategy Cockpit" the Executive Board and responsible managers have at their disposal a strategy tool that assists them with the planning, elaboration and management of strategic objectives and measures and safeguards their overall perspective on the company and its strategic risks. The process for the management of strategic risks continues to be assessed annually as part of the monitoring of business process risks. For more information on the topic of strategy please see the section "Non-financial information statement" on page 64 et seq.

Reputational risks refer to the risk that the trust put in our company by clients, shareholders, employees or the public at large may be damaged. This risk has the potential to jeopardise the business foundation of the Hannover Re Group. A good corporate reputation is therefore an indispensable prerequisite for our core business as a reinsurer. Reputational risks may arise out of all business activities conducted by the Hannover Re Group. Reputational damage may be caused, inter alia, by a data mishap that becomes public knowledge or financial difficulties on account of an underwriting risk. In addition to the risk identification methods already described, we use a number of different techniques for risk minimisation, such as our defined communication channels (e. g. Crisis Communication Guideline), a professional approach to corporate communications, tried and tested processes for specific crisis scenarios as well as our established Code of Conduct. The reputational risk also relates to our social responsibility and is thus a control point in the context of our sustainability efforts.

The liquidity risk refers to the risk of being unable to meet our financial obligations when they become due. The liquidity risk consists of the refinancing risk (necessary cash could not be obtained or could only be obtained at increased costs) and the market liquidity risk (financial market transactions could only be completed at a poorer price than expected due to a lack of market liquidity). Core elements of the liquidity management of our investments are, in the first place, management of the maturity structure of our investments on the basis of the planned payment profiles arising out of our technical liabilities and, secondly, regular liquidity planning as well as the asset structure of the investments. Above and beyond the foreseeable payments, unexpected and exceptionally large payments may pose a threat to liquidity. In reinsurance business, however, significant events (major losses) are normally paid out after a lead time that can be reliably planned. As part of our liquidity management we have nevertheless defined asset holdings that have proven to be highly liquid – even in times of financial stress such as the 2008 financial crisis. Our holdings of unrestricted German, UK and US government bonds as well as cash during the year under review were larger than possible disbursements for assumed extreme events, which means that our liquidity is assured even in the unlikely case of financial crises coinciding with an extreme event that needs to be paid out quickly. The liquid asset reserve stood at EUR 5.1 billion as at the balance sheet date. In addition, we manage the liquidity of the portfolio by checking on each trading day the liquidity of the instruments contained therein. These measures serve to effectively reduce the liquidity risk.

Regular quarterly risk reporting to the Risk Committee and the Executive Board takes place with regard to the other risks. Risks are also evaluated as part of the reporting.

As part of the risk management process we also take into account the impacts on the operational and reputational risks of aspects of environmental management, employee matters, social matters, respect for human rights and the combating of corruption and bribery, as required by the CSR Directive Implementation Act in accordance with § 289b and c German Commercial Code (HGB) and § 315c German Commercial Code (HGB).

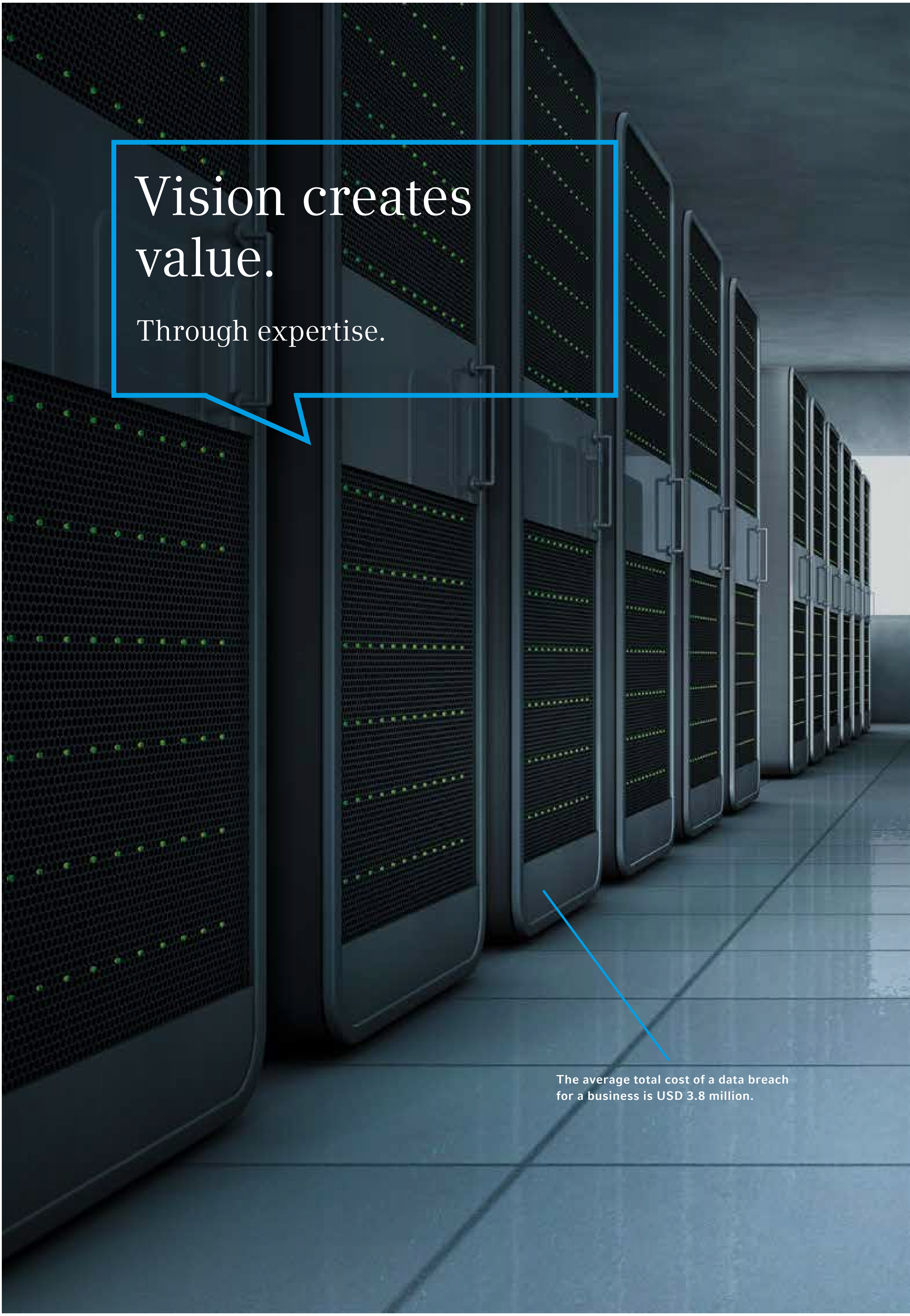
Opportunity report

Speed is one of the qualities used to measure a successful knowledge transfer. Quick solutions and staying one step ahead of the competition is the name of the game. Hannover Re searches systematically for new business opportunities in order to generate sustainable growth and strengthen the company's profitable development. With a view to identifying opportunities and successfully translating ideas into business, Hannover Re adopts a number of closely related approaches in order to achieve holistic opportunity and risk management. Of significance here is the interplay without overlaps of the various functions within opportunity and risk management, which is ensured by defined interfaces.

Key elements in Hannover Re's opportunity management include its various market-specific innovations in the Life & Health and Property & Casualty reinsurance business groups (see the Forecast on page 137 et seq.). What is more, innovative and creative ideas are developed by our employees. Those that can be successfully translated into additional profitable premium volume are financially rewarded. Further elements are the working group on "Emerging Risks and Scientific Affairs" and the "Future Radar" initiative.

Not only that, Hannover Re has set up an organisational unit for "Innovation Management" within the Chief Executive Officer's scope of responsibility. This service unit deals systematically with ideas and potential business possibilities and it concentrates its activities on opening up additional growth opportunities. To this end, promising opportunities are translated into business models with the support of project teams. New solutions that meet with a positive response are subsequently launched on the market in cooperation with primary insurance partners. The goal is to cultivate new business and thereby promote Hannover Re's profitable growth. Several of the more than 115 ideas contributed by the global network since the unit was set up have been realised as innovative insurance solutions and successfully handed over to line responsibility; they are now being sold on the market by primary insurers.

A key project initiated back in 2016 went by the name "Journey Re". It forged a connection to students, university graduates and young professionals with a view to developing new business models for primary insurance and reinsurance and translating the creativity that exists outside the industry into new business opportunities. The project activities were focused on locations in Berlin, Dublin, Boston and Johannesburg. Work on refining the results of the project continued in 2017.



Vision creates value.

Through expertise.

The average total cost of a data breach for a business is USD 3.8 million.


In 2016, 700 million people in 21 countries were affected by some form of cybercrime.
Our experts assess our customers' cyber risks and offer them custom-made protection coverage.

In 2017 the Innovation Management unit identified and prioritised topics of relevance to Hannover Re going forward. More than 100 insurtech startups around the world were analysed on the basis of these various subject areas. We work together with selected insurtechs on the concrete implementation of innovative concepts.

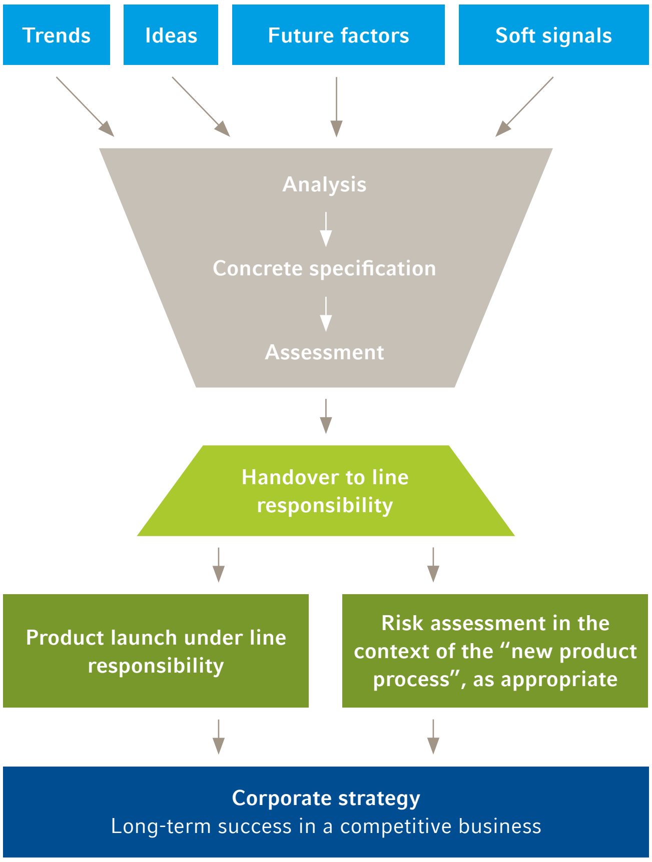
The networking of the innovative minds involved gives rise to close links with other projects, working groups and bodies, such as with the working group on "Emerging Risks und Scientific Affairs" in regard to emerging risks and opportunities (see page 100 et seq. "Other risks"). This working group carries out qualitative assessments of emerging risks. As a result, however, not only are the potential risks explored but also any available business opportunities. In the year under review, for example, issues such as "Political crimes" and "Regulatory environment" were analysed by the working group.

Cyber risks

Cyber attacks on critical systems are becoming increasingly common. They can cause considerable financial losses and also damage corporate reputations. Not only that, they can severely hamper private and public life, especially if critical infrastructures are impacted – such as the health, transportation/traffic and energy sectors. In such instances supply bottlenecks with lasting effects as well as major disruptions to public safety may ensue. In a networked world the repercussions of cyber attacks are intensifying because the volume of data stored around the world is constantly growing – and in this context it is not only one's own technical infrastructure that needs to be secured. On the contrary, the trend towards cloud computing is increasingly shifting the focus to third-party infrastructures and the associated network connection. As part of our holistic risk and opportunity management activities, we are also tackling the question of what new insurance products can be developed in order to protect against the relevant threats. Our presence in this market thus goes as far back as 2007 and we have already developed corresponding products.

If a business idea is translated into reality and a new reinsurance product results, the normal procedure – provided the criteria defined for this purpose by Risk Management are applicable – is to work through the so-called new product process. This process is supported by Risk Management at Hannover Re. The process is always worked through if a contractual commitment is to be entered into in a form not previously used by Hannover Re or if a new type of risk is to be insured. If this is the case, all material internal and external influencing factors are examined beforehand by Risk Management (e. g. implications for the overall risk profile or the risk strategy) and evaluated. Risk Management ensures that before it can be used or sold a new reinsurance product must be approved by the Executive Board.

Opportunity management process **M 80**



Overall assessment by the Executive Board

Based on our currently available insights arrived from a holistic analysis of the opportunities and risks, the Executive Board of Hannover Re cannot discern any risks that could jeopardise the continued existence of the Hannover Re Group in the short or medium term or have a material and lasting effect on its assets, financial position or net income. We are convinced that:

- our established system of risk management affords us a transparent overview of the current risk situation at all times
- our overall risk profile is appropriate, and
- our opportunity management plays an important part in Hannover Re's profitable growth.

As an internationally operating reinsurance group, we move in a highly complex environment. Nevertheless, thanks to our business activities in all lines of reinsurance we are able to achieve optimal risk spreading through geographical and risk-specific diversification while at the same time maintaining a balanced opportunity / risk profile. We consider the risks described in the above sections to be manageable, particularly because our steering and monitoring measures are effectively and closely interlinked. Despite these diverse mechanisms, individual and especially accumulation risks can decisively affect our assets, financial position and net income. In accordance with our understanding of risk, however, we consider not only risks but also at the same time opportunities. We therefore only enter into those risks that go hand-in-hand with opportunities. Our steering and monitoring tools as well as our organisational and operational structure ensure that we identify risks at an early stage and are able to act on our opportunities. Our central monitoring tool is the system of risk management that we have installed Group-wide, which efficiently brings together both qualitative and quantitative information. Most notably, the interplay between domestic and foreign risk management functions affords us a holistic and Group-wide overview.

Our own evaluation of the manageability of existing risks is confirmed by various financial indicators and external assessments. Specific monitoring indicators, corresponding notification thresholds and potential escalation steps are defined on a mandatory basis in our central system of limits and thresholds for the material risks of the Hannover Re Group. As a result, the system provides us with a precise overview of potentially undesirable developments in the defined risk tolerances and enables us to react in a timely manner. One testament to our financial stability, for example, is the growth of our shareholders' equity: the total policyholders' surplus (hybrid capital, non-controlling interests and shareholders' equity) stands at 147% of the corresponding figure from 2011. In this context, our necessary equity resources are determined by the requirements of our economic capital model, solvency regulations, the assumptions of rating agencies with respect to our target rating and the expectations of our clients and shareholders. This increase gives us a sufficient capital cushion to be able both to absorb risks and act on business opportunities that may arise. Similarly, our very good ratings (see page 57 et seq.) also testify to our financial stability. The quality of our Enterprise Risk Management (ERM) is evaluated separately by Standard & Poor's. In the year under review Standard & Poor's gave our risk management its highest possible grade of "Very Strong". Most notably, our established risk management culture – one of the rating agency's benchmark criteria – promotes the development of appropriate risk monitoring systems and strategic risk management. The evaluation further encompasses the areas of risk controls, emerging risk management and risk models. This external appraisal confirms the quality of our holistic approach to risk management.

We would also refer to the explanatory remarks on the financial strength ratings of our subsidiaries in the "Financial position" section of the management report on page 57 et seq. In addition, the risk trigger mechanism and internal monitoring system are reviewed annually by the independent auditor. The Group-wide risk management system is also a regular part of the audits conducted by the internal audit function. For additional information on the opportunities and risks associated with our business please see the Forecast on page 134 et seq.

Enterprise management

Declaration on Corporate Governance pursuant to §§ 289a, 315 Para. 5 Commercial Code (HGB)

The objective of Hannover Re continues to be to consolidate and further expand its position as one of the leading, globally operating reinsurance groups of above-average profitability. In aspiring towards this goal, it is particularly important to observe and fulfil the principles of good and sustainable enterprise management. In so doing, we not only comply with the German Corporate Governance Code (DCGK, hereinafter also referred to as the Code), but have also developed our own model for responsible enterprise management which we consistently pursue and adjust to the latest requirements in accordance with our best practice standards.

The Executive Board and Supervisory Board of Hannover Rück SE expressly support the suggestions and recommendations of the German Corporate Governance Code that are practicable for the reinsurance industry and recognise their central importance in guiding our activities. The principles of responsible and good enterprise management therefore constitute the core of our internal Corporate Governance principles (www.hannover-re.com/50889/corporate-governance-principles.pdf). These were adjusted in the year under review to reflect changes in the Code. We cultivate integrity at all times in our dealings with business partners, staff, shareholders and other stakeholder groups and support the principles of value-based and transparent enterprise management and supervision defined in the German Corporate Governance Code. The Supervisory Board, Executive Board and employees of Hannover Re identify with these principles, which thus form part of our corporate self-image. The Executive Board ensures that the principles are observed Group-wide.

Hannover Rück SE hereby provides insight into its enterprise management practices as part of the Declaration on Corporate Governance pursuant to § 289a Commercial Code (HGB) and pursuant to § 315 Para. 5 Commercial Code (HGB) in conjunction with § 289a Commercial Code (HGB) for the Hannover Re Group:

Corporate Governance

As an instrument of self-regulation for the business world, the German Corporate Governance Code – the latest version of which dates from 7 February 2017 – sets out recommendations and suggestions that are intended to maintain and foster the trust of investors, customers, employees and the general public in the management and supervision of German companies. Although the Code does not have binding legal force, the enterprises addressed by the Code are nevertheless required by § 161 Stock Corporation Act (AktG) to provide an annual declaration as to whether or not the recommendations of the Code were and are complied with in the reality of the company's business activities. If recommendations were not acted upon, this is to be explained and disclosed as part of the Declaration of Conformity.

The positive attitude of Hannover Rück SE towards the Code is not contradicted by the fact that in the year under review we did not comply with certain Code recommendations, since a well justified deviation from the recommendations of the Code may – as in the present cases – be very much in the interests of good corporate governance tailored to a particular company, i. e. by reflecting enterprise- and industry-specific features (cf. Foreword to the German Corporate Governance Code). Based on what is still a high degree of fulfilment of the recommendations and suggestions of the Code, Hannover Re continues to rank very highly among the companies listed on the DAX and MDAX.

Declaration of Conformity pursuant to § 161 Stock Corporation Act (AktG) regarding compliance with the German Corporate Governance Code at Hannover Rück SE

The German Corporate Governance Code sets out major statutory requirements governing the management and supervision of German listed companies. It contains both nationally and internationally recognised standards of good and responsible enterprise management. The purpose of the Code is to foster the trust of investors, clients, employees and the general public in German enterprise management. Under § 161 Stock Corporation Act (AktG) it is incumbent on the Management Board and Supervisory Board of German listed companies to provide an annual declaration of conformity with the recommendations of the "German Corporate Governance Code Government Commission" published by the Federal Ministry of Justice or to explain which recommendations of the Code were / are not applied.

The Executive Board and Supervisory Board declare pursuant to § 161 Stock Corporation Act (AktG) that in its implementation of the German Corporate Governance Code Hannover Rück SE diverges in four respects from the recommendations contained in the version of the Code dated 7 February 2017:

Code Section 4.2.3 Para. 2; Caps on the amount of variable compensation elements in Management Board contracts

The variable compensation of the members of the Executive Board is granted in part in the form of Hannover Re share awards. The maximum number of share awards granted at the time of allocation depends upon the total amount of variable compensation, which is subject to an upper limit (cap), i. e. the allocation of share awards is limited by the cap. The share awards have a vesting period of four years. During this period the members of the Executive Board therefore participate in positive and negative developments at the company, as reflected in the share price. The equivalent value of the share awards is paid out to the members of the Executive Board after the end of the vesting period. The amount paid out is determined according to the share price of the Hannover Re share applicable at the payment date plus an amount equivalent to the total dividends per share distributed during the vesting period. The share awards consequently follow the economic fortunes of the Hannover Re share.

The amount of variable compensation deriving from the granting of share awards is thus capped at the time when the share awards are allocated, but it is not capped again at the time of payment. Bearing in mind the harmonisation of the interests of shareholders and of the members of the Executive Board of Hannover Rück SE that is sought through the share awards, the company does not consider further limitation of the amount of variable remuneration resulting from the granting of share awards at the time of payment to be expedient. From the company's perspective, the use of Hannover Re share awards as a method of payment constitutes – in economic terms – a compulsory investment in Hannover Re shares with a four-year holding period.

For formal purposes and as a highly precautionary measure, Hannover Rück SE is therefore declaring a divergence from Code Section 4.2.3 Para. 2.

Code Section 4.2.3 Para. 4; Caps on severance payments in Management Board contracts

Premature termination of a service contract without serious cause may only take the form of cancellation by mutual consent. Even if the Supervisory Board insists upon setting a severance cap when concluding or renewing an Executive Board contract, this does not preclude the possibility of negotiations also extending to the severance cap in the event of a member leaving the Executive Board. In addition, the scope for negotiation over a member leaving the Executive Board would be restricted if a severance cap were agreed, which could be particularly disadvantageous in cases where there is ambiguity surrounding the existence of serious cause for termination. In the opinion of Hannover Rück SE, it is therefore in the interest of the company to diverge from the recommendation contained in Code Section 4.2.3 Para. 4.

Code Section 5.3.2 Para. 3 Sentence 2; Independence of the Chair of the Audit Committee

The current Chair of the Supervisory Board and Chair of the Finance and Audit Committee of Hannover Rück SE is at the same time also the Chair of the Board of Management of the controlling shareholder and hence cannot, in the company's legal assessment, be considered independent.

In the period from 1994 to 2002 he served as the company's Chief Financial Officer. During this time he acquired superb knowledge of the company and he is equipped with extensive professional expertise in the topics that fall within the scope of responsibility of the Finance and Audit Committee. With this in mind, the serving Chair of the Supervisory Board is optimally suited to chairing the Audit Committee.

This assessment is also not cast into question by the fact that the Committee Chair cannot be considered independent within the meaning of the German Corporate Governance Code. Furthermore, since his service as Chief Financial Officer of Hannover Rück SE dates back to a period that is already some fifteen years ago, it is also the case that the reviews and checks performed by the Finance and Audit Committee no longer relate to any timeframe within which he himself was still a member of the Executive Board or decisions initiated by him as a member of the Executive Board were still being realised.

In the opinion of Hannover Rück SE, it is therefore in the interest of the company to diverge from the recommendation contained in Code Section 5.3.2 Para. 3 Sentence 2.

Code Section 5.3.2 Para. 3 Sentence 3; Chair of the Supervisory Board and Chair of the Audit Committee shall not be the same person

The currently serving Chair of the Supervisory Board of Hannover Rück SE is at the same time the Chair of the Finance and Audit Committee. As already explained above in the justification for divergence from Code Section 5.3.2 Para. 3 Sentence 2, there are good grounds to support the current Chair of the Supervisory Board also serving as Chair of the Finance and Audit Committee. In the opinion of Hannover Rück SE, it is therefore in the interest of the company to diverge from the recommendation contained in Code Section 5.3.2 Para. 3 Sentence 3.

We are in compliance with all other recommendations of the Code.

Hannover, 7 November 2017

For the Executive Board, for the Supervisory Board

Further enterprise management principles of Hannover Re

In addition to the Corporate Governance principles, Hannover Rück SE has adopted its own more extensive Code of Conduct (www.hannover-re.com/50943/code-of-conduct.pdf) that is applied Group-wide as a set of minimum standards. Complementing our corporate strategy and the Corporate Governance principles, it establishes rules governing integrity in the behaviour of all employees of Hannover Re and is intended to help members of staff cope with the ethical and legal challenges that they face as part of day-to-day work. The rules defined in the Code of Conduct reflect the high ethical and legal standards that guide our actions worldwide. It is our belief that integrity in dealings with our stakeholders constitutes the foundation of a successful enterprise. In both our strategic planning and our day-to-day business activities, we therefore aspire to consistently apply the highest ethical and legal standards; for our actions and the way in which every single one of us presents and conducts himself or herself are crucial in shaping the image of Hannover Re.

Sustainability of enterprise management

The strategic orientation of Hannover Re towards sustainability constitutes an important element of the enterprise strategy. The aim is to achieve commercial success on the basis of a results-driven business model in accordance with the needs of our staff and the company as well as with an eye to protecting the environment and conserving natural resources. As part of the regular review of our Group Strategy and Sustainability Strategy and based upon a materiality analysis, we adjusted our previous Sustainability Strategy for the years 2015 to 2017 to the changing economic framework conditions and systematically followed through on it with the Sustainability Strategy 2018 to 2020. The current Sustainability Strategy defines four action fields and specifies concrete goals and measures that are to be implemented in the strategy cycle. In accordance with the CSR Directive Implementation Act of 11 April 2017, Hannover Rück SE has published a non-financial statement for the 2017 financial year.

We thus strive to reduce as far as possible the greenhouse gas emissions produced by our day-to-day business activities in order to come closer to reaching our goal of carbon neutrality. Furthermore, we have defined strategic principles for our human resources management, since we consider our employees to be a crucial factor in the success of our company. Along with skills, qualifications and commitment, a high degree of diversity is one of the cornerstones of our successful business operations. Performance indicators have therefore been defined for personnel development and advancement. Employee retention is encouraged, while diversity and equal opportunities are promoted. Three of the members of the Supervisory Board of Hannover Rück SE in the year under review were women. In addition, one of the members of the Supervisory Board's Nomination Committee is a woman. Detailed information on the topic of sustainability is provided on our website (www.hannover-re.com/60729/sustainability).

Targets pursuant to §§ 76 Para. 4, 111 Para. 5 Stock Corporation Act (AktG)

In accordance with § 289 et seq. Para. 4 Sentence 1 in conjunction with Para. 2 No. 4 Commercial Code (HGB) and § 111 Para. 5 Stock Corporation Act (AktG), the Supervisory Board of the company was required to set fresh target quotas for women on the Supervisory Board and Executive Board because the deadline for reaching the existing targets was 30 June 2017. For the said period the target quotas for women were 30% on the Supervisory Board and zero on the Executive Board. The target set for the Supervisory Board was fulfilled with a quota of around 33%; the target for the Executive Board was not surpassed.

The new resolution adopted by the Supervisory Board is applicable to the period from 1 July 2017 to 30 June 2022. After extensive deliberations the Supervisory Board decided, in due consideration of the term of office of the Supervisory Board and the current mandates and contracts of service of the members of the Executive Board, to leave the target quota for women on the Supervisory Board at 30%. The target quota for the Executive Board was raised from zero to 14%. This means that one woman shall serve as a member of the Executive Board in the specified period.

The company's Executive Board raised the existing targets for the two levels of senior management below the Executive Board from 16.8% to 18% for the same period.

Working practice of the Executive Board and Supervisory Board

The Executive Board and Supervisory Board of Hannover Rück SE work together on a trusting basis to manage and monitor the company and the Group as a whole. In accordance with the Rules of Procedure of the Executive Board, matters of fundamental importance require the consent of the Supervisory Board. The Supervisory Board is comprised of nine members. Six members are elected as shareholder representatives by the shareholders at the Annual General Meeting. The three seats held by employee representatives, which are currently allocated to Germany pursuant to Part III. § 13 (3) of the Agreement regarding the Participation of Employees in Hannover Rück SE of 23 January 2013, are elected in accordance with the provisions of the SE Participation Act (SEBG) by the responsible representative body (currently the joint Employee Council of Hannover Rück SE and E+S Rückversicherung AG). The Supervisory Board appoints the members of the Executive Board. Since members of the Supervisory Board cannot at the same time belong to the Executive Board, a high degree of independence in the oversight of the Executive Board is thus already ensured by structural means. In addition, the Supervisory Board is kept informed on a regular and timely basis of the business development, the execution of strategic decisions, material risks and planning as well as relevant compliance issues. The Chairman of the Supervisory Board stays in regular contact with the Chairman of the Executive Board in order to discuss with him significant business occurrences. The composition of the Executive Board (including areas of responsibility) as well as of the Supervisory Board and its committees is set out on pages 6 et seq. and 261 respectively of the present Annual Report.

The Rules of Procedure of the Executive Board are intended to ensure that a consistent business policy is elaborated and implemented for the company in accordance with its strategic objectives. Within the framework of a consistent business policy, the principle of "delegation of responsibility" enjoys special status. In the interests of shareholders, importance is expressly attached to an organisation that facilitates cost-effective, quick and unbureaucratic decision processes. Open and trusting cooperation geared to the interest of the whole is the foundation of success. In this context, the members of the Executive Board bear joint responsibility for the overall management of business. Irrespective of their overall responsibility, each member of the Executive Board leads their own area of competence at their individual responsibility within the bounds of the resolutions adopted by the Executive Board. Only persons under the age of 65 may be appointed to the Executive Board. The term of appointment shall be determined such that it expires no later than the end of the month in which the member of the Executive Board turns 65. The Supervisory Board takes account of diversity considerations in the composition of the Executive Board.

The Rules of Procedure of the Supervisory Board provide inter alia that each member of the Supervisory Board must have the knowledge, skills and professional experience required for orderly performance of their tasks and that the Supervisory Board must have a sufficient number of independent members. Currently, at least two of the six shareholder representatives are independent as defined by Item 5.4.1 Para. 4 of the German Corporate Governance Code. In the assessment of the Supervisory Board, at least the following members of the Supervisory Board are independent shareholder representatives: Dr. Pollak, Dr. Sturany. At least one independent member shall have technical expertise in the fields of accounting and the auditing of financial statements. Persons suggested to the Annual General Meeting as candidates for election to the Supervisory Board may not be older than 72 at the time of their election and shall normally not belong to the Supervisory Board as a member for longer than three full consecutive terms of office; the term of office commencing from the end of the 2014 Annual General Meeting shall be counted as the first term of office in this regard. Nominations shall take account of the company's international activities as well as diversity. Furthermore, it shall be ensured that the proposed person can allocate the expected amount of time. For their part, each sitting member of the Supervisory Board shall also ensure that they have sufficient time to discharge their mandate. The Supervisory Board meets at least twice each calendar half-year. If a member of the Supervisory Board has only participated in half of the meetings of the Supervisory Board and the committees or less in a financial year, this shall be noted in the Supervisory Board's report. No more than two former members of the company's Executive Board may belong to the Supervisory Board.

Working practice of the committees of the Supervisory Board

In order to efficiently perform its tasks the Supervisory Board has formed a number of committees: the Finance and Audit Committee, the Standing Committee and the Nomination Committee. The Supervisory Board committees are each comprised of three members and prepare matters within their scope of competence for discussion and adoption of a resolution by the full Supervisory Board. In addition, the committees are also assigned their own authority to adopt resolutions.

The Finance and Audit Committee monitors the accounting process and the effectiveness of the internal control system, the risk management system and the internal auditing system. It also handles issues relating to compliance and the information system for the Supervisory Board and discusses the Quarterly Statements as well as the Half-yearly Financial Report prior to their publication. It prepares the Supervisory Board's examination of the annual financial statement, management report and proposal for the appropriation of profit as well as of the consolidated financial statement and Group management report. In this context, the Finance and Audit Committee receives detailed information on the auditor's view of the net assets, financial position and results of operations as well as explanations of the effects of any modified recognition and measurement principles on the net assets, financial position and results of operations together with available alternatives. In addition, the committee prepares the Supervisory Board's decision on the commissioning of the independent auditor for the financial statements. It considers matters associated with the necessary independence of the auditor, the awarding of the audit mandate to the independent auditor, the determination of the audit concentrations and the fee agreement. The minutes of the meetings of the Finance and Audit Committee are also made available to the members of the Supervisory Board who do not sit on the committee.

The Standing Committee prepares personnel decisions for the Supervisory Board. It bears responsibility for granting loans to the group of persons specified in §§ 89 Para. 1, 115 Stock Corporation Act (AktG) and those considered equivalent pursuant to § 89 Para. 3 Stock Corporation Act (AktG) as well as for approving contracts with Supervisory Board members in accordance with § 114 Stock Corporation Act (AktG). It exercises the powers arising out of § 112 Stock Corporation Act (AktG) in lieu of the Supervisory Board and – in cooperation with the Executive Board – ensures that long-term succession planning is in place.

The Nomination Committee is tasked with proposing to the Supervisory Board appropriate candidates for the nominations that it puts forward to the Annual General Meeting for election to the Supervisory Board.

For further details of the activities of the Supervisory Board committees please see the explanations provided in the Supervisory Board Report on pages 258 to 260.

Compliance

Hannover Re considers a properly functioning compliance structure to be an essential tool for ensuring compliance with external rules and regulations as well as requirements imposed internally by the company. Our compliance structure, which consists of compliance modules precisely tailored to the specific features of our Property & Casualty and Life & Health reinsurance business groups, facilitates optimal application. The compliance committees, which examine questions of risk transfer as well as other compliance aspects associated with the Group's reinsurance treaties, are comprised of members from the respective business groups as well as from the areas of Legal, Finance, Accounting and Investments. The chairs report directly to the Executive Board. This structure safeguards adherence to the standards that have been set.

The compliance report for the 2017 calendar year will be submitted to the Finance and Audit Committee in March 2018. The reporting sets out the structure and diverse range of activities of Hannover Re in this regard. The findings of the separate data privacy reporting for the 2017 calendar year are also included in the compliance report. After in-depth examination of topics such as directors' dealings, ad hoc and other disclosure requirements, the insider register, consulting agreements, data protection, international sanctions and the Group-wide whistleblower system, the report concludes that only a few circumstances have been identified which point to breaches of relevant compliance standards. After detailed exploration of these incidents, the necessary safeguards were put in place to ensure that in the future Hannover Re is in conformity with the internal and external requirements governing its business activities.

Risk monitoring and steering

The risk management system applicable throughout the entire Hannover Re Group is based on the risk strategy, which in turn is derived from the corporate strategy. A core component is the systematic and comprehensive recording of all risks that from the current standpoint could conceivably jeopardise the company's profitability and continued existence. Further details in this regard may be obtained from the risk report contained in this Annual Report on page 78 et seq.

Information regarding the following items is provided in the remuneration report:

- Remuneration report for the Executive Board and disclosure of the remuneration received by Supervisory Board members pursuant to Items 4.2.5 and 5.4.6 of the German Corporate Governance Code,
- Securities transactions,
- Shareholdings.

Information on share-based payment pursuant to Item 7.1.3 of the German Corporate Governance Code is provided in section 8.3 of the notes "Share-based payment", page 239 et seq., and in the remuneration report with respect to the members of the Executive Board.

In addition to the present Declaration on Corporate Governance, the Corporate Governance Report and the reports of recent years are published on our website pursuant to Item 3.10 of the German Corporate Governance Code (www.hannover-re.com/200801/declaration-of-conformity).

Remuneration report

The remuneration report summarises the principles used to determine the remuneration of the Executive Board of Hannover Rück SE and explains the structure, composition and amount of the components of the remuneration received by the Executive Board in the 2017 financial year on the basis of the work performed by the Board members for Hannover Rück SE and companies belonging to the Group.

In addition, the amount of remuneration paid to the Supervisory Board on the basis of its work for Hannover Rück SE and companies belonging to the Group as well as the principles according to which this remuneration is determined are described; we also explain the principles on which the remuneration for senior executives below the level of the Executive Board is based.

The remuneration report is guided by the recommendations of the German Corporate Governance Code and contains information which forms part of the notes to the 2017 consolidated financial statement as required by IAS 24 "Related Party Disclosures". 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 this remuneration report and presented in summary form in the notes.

The provisions of the Act on the Adequacy of Management Board Remuneration (VorstAG) and of the Insurance Supervision Act (VAG) in conjunction with the Regulation on the Supervisory Law Requirements for Remuneration Schemes in the Insurance Sector (VersVergV) have been observed. In addition, we took into account the more specific provisions of DRS 17 "Reporting on the Remuneration of Members of Governing Bodies".

Remuneration of the Executive Board

Responsibility

In order to efficiently perform its tasks the Supervisory Board has formed various committees. The Standing Committee prepares remuneration-related matters of content relating to the Executive Board for discussion and adoption of a resolution by a full meeting of the Supervisory Board.

Objective, structure and system of Executive Board remuneration

The total remuneration of the Executive Board and its split into fixed and variable components conform to regulatory requirements – especially the provisions of the Act on the Adequacy of Management Board Remuneration (VorstAG) and of Art. 275 Commission Delegated Regulation (EU) 2015/35 and supplemented by those of the Regulation on the Supervisory Law Requirements for Remuneration Schemes in the Insurance Sector (VersVergV). An independent expert's report from June 2017 confirms that the system of remuneration meets the requirements of Art. 275 Commission Delegated Regulation (EU) 2015/35 for a remuneration policy and remuneration practices that are in line with the undertaking's business, strategy and risk profile.

The amount and structure of the remuneration of the Executive Board are geared to the size and activities of the company, its economic and financial position, its success and future prospects as well as the customariness of the remuneration, making reference to the benchmark environment (horizontal) and the remuneration structure otherwise applicable at the company (vertical). The remuneration is also guided by the tasks of the specific member of the Executive Board, his or her individual performance and the performance of the full Executive Board.

With an eye to these objectives, the remuneration system has two components: fixed salary/non-cash compensation and variable remuneration. The variable remuneration is designed to take account of both positive and negative developments. Overall, the remuneration is to be measured in such a way that it reflects the company's sustainable development and is fair and competitive by market standards. In the event of 100% goal attainment the remuneration model provides for a split into roughly 40% fixed remuneration and roughly 60% variable remuneration.

Fixed remuneration (approx. 40% of total remuneration upon 100% goal attainment)

Measurement basis and payment procedures for fixed remuneration M81

Components	Measurement basis/ parameters	Condition for payment	Paid out
Basic remuneration; Non-cash compensation, fringe benefits: Accident, liability and luggage insurance, company car for business and – if desired – personal use (tax on the non-cash benefit payable by the Board member), reimbursement of travel expenses and other expenditures incurred in the interest of the company	Function, responsibility, length of service on the Executive Board The annual fixed salary is determined upon appointment for the entire term of the appointment.	Contractual stipulations	12 equal monthly instalments

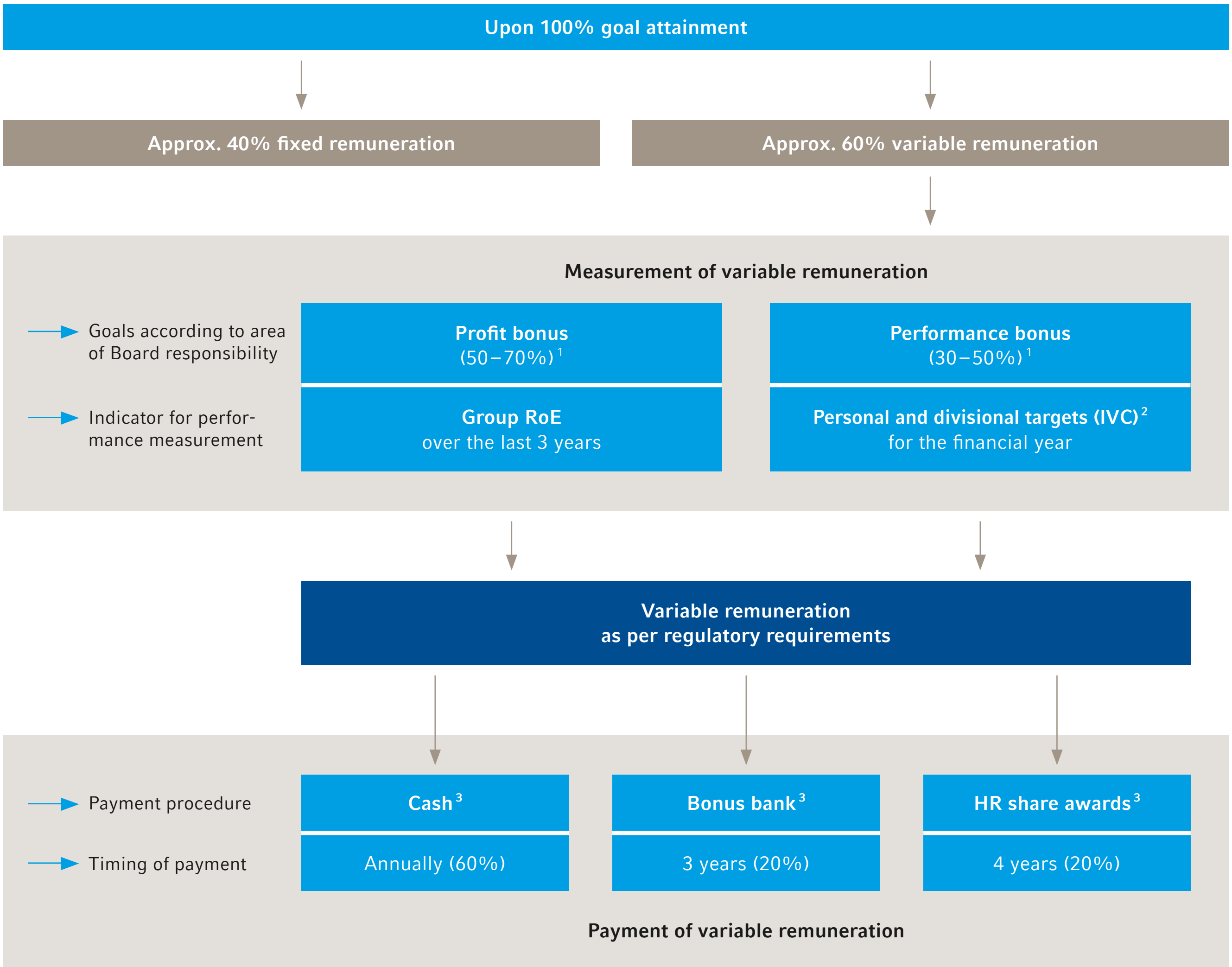
Variable remuneration (approx. 60% of total remuneration upon 100% goal attainment)

The profit- and performance-based remuneration (variable remuneration) is contingent on certain defined results and the attainment of certain set targets. The set targets vary according to the function of the Board member in question. The variable remuneration consists of a profit bonus and a performance bonus.

The variable remuneration is defined at the Supervisory Board meeting that approves the consolidated financial statement for the financial year just ended.

The following chart summarises the make-up of the variable remuneration components. For details of measurement and payment procedures please see the two tables following the chart.

Overview of the composition of variable remuneration M 82



1 Chief Executive Officer / Chief Financial Officer 70% profit bonus, 30% performance bonus (personal targets); Board members with divisional responsibility: 50% profit bonus, 50% performance bonus (25% personal targets / 25% divisional targets)

2 An instrument of value-based management used to measure the attainment of long-term goals on the level of the Group, business groups and operational units

3 Split defined by legal minimum requirements

Measurement bases/conditions of payment for variable remuneration M83

Component	Measurement basis/parameters	Condition of payment
Profit bonus		
Proportion of variable remuneration: Chief Executive Officer/Chief Financial Officer: 70%; Board member with divisional responsibility: 50%	The profit bonus is dependent on the risk-free interest rate and the average Group return on equity (RoE) of the past three financial years. An individually determined and contractually defined basic amount is paid for each 0.1 percentage point by which the RoE of the past three financial years exceeds the risk-free interest rate. Goal attainment of 100% corresponds to an RoE of 8.8% plus the risk-free interest rate (2017: 0.76%). Goal attainment can amount to a maximum of 200% and a minimum of -100%. The IFRS Group net income (excluding non-controlling interests) and the arithmetic mean of the IFRS Group shareholders' equity (excluding non-controlling interests) at the beginning and end of the financial year are used to calculate the RoE. The risk-free interest rate is the average market rate for 10-year German government bonds over the past five years, with the average being calculated on the basis of the respective interest rate at year-end.	Contractual stipulations Attainment of three-year targets Decision of the Supervisory Board
Performance bonus The performance bonus for the Chief Executive Officer and the Chief Financial Officer is arrived at from individual qualitative and, as appropriate, quantitative targets defined annually by the Supervisory Board that are to be accomplished in the subsequent year. For members of the Executive Board with responsibility for a certain division, the performance bonus consists in equal parts of the divisional bonus and the individual bonus.		

Component	Measurement basis/parameters	Condition of payment
Divisional bonus Proportion of variable remuneration: Board member with divisional responsibility: 25%	The basis for the divisional bonus is the return generated on the capital allocated to the division in the respective 3-year period just ended (= RoCA (Return on Capital Allocated)). An individually determined amount specified in the service contract is calculated for each 0.1 percentage point by which the average 3-year RoCA exceeds the level of 0%. Goal attainment of 100% is achieved in property and casualty reinsurance with a RoCA of 9.1% and in life and health reinsurance with a RoCA of 10.1%. These RoCA values are above the cost of capital and thus generate positive intrinsic value creation (IVC)[1]. Goal attainment can amount to a maximum of 200% and a minimum of -100%. The method used to calculate the IVC as a basis for determining the divisional performance is checked by independent experts. The divisional bonus is determined by the Supervisory Board according to its best judgement. The determination also takes into account, in particular, the contribution made by the business under the responsibility of the Board member concerned to the achieved divisional performance and the relative change in the average IVC in the remuneration year. The Supervisory Board may make additions to or deductions from the arithmetically calculated values at any time in the event of over- or underfulfilment of the criteria.	Attainment of three-year targets Contractual agreement Decision of the Supervisory Board according to its best judgement
Individual bonus Proportion of variable remuneration: Chief Executive Officer/Chief Financial Officer: 30%; Board member with divisional responsibility: 25%	Personal qualitative, quantitative targets (individual contribution to the overall result, leadership skills, innovative skills, entrepreneurial skills, specific features of area of responsibility). The individual bonus for goal attainment of 100% is contractually stipulated. Over- and underfulfilment result in additions/deductions. A General Performance Bonus geared to the individual overall performance of the member of the Executive Board can be determined by the Supervisory Board as part of the individual bonus. The minimum individual bonus amounts to EUR 0 and the maximum is double the bonus payable upon complete goal attainment.	Attainment of annual targets Decision by the Supervisory Board according to its best judgement.

[1] An instrument of value-based management used to measure the attainment of long-term goals on the level of the Group, business groups and operational units (see also page 18 et seq.).

Payment procedures for the total variable remuneration

Of the total amount of defined variable remuneration, a partial amount of 60% is paid out in the month following the Supervisory Board meeting that approves the consolidated financial statement. The remaining amount of 40% is initially withheld as explained below with a view to encouraging long-term value creation:

Payment procedures for the total variable remuneration M84

Short-term	Medium-term	Long-term
60% of the variable remuneration with the next monthly salary payment following the Supervisory Board resolution	**20% of the variable remuneration in the bonus bank;** withheld for three years; the positive amount contributed three years prior to the payment date is available for payment, provided this does not exceed the balance of the bonus bank in light of credits/debits up to and including those for the financial year just ended; an impending payment not covered by a positive balance in the bonus bank is omitted; a positive balance in the bonus bank is carried forward to the following year after deduction of any payment made; a negative balance is not carried forward to the following year; loss of claims due from the bonus bank in special cases: resignation from office without a compelling reason; contract extension on the same conditions is rejected; no interest is paid on credit balances.	Automatic granting of **virtual Hannover Re share awards (HR-SAs)** with a value equivalent to **20%** of the variable remuneration; payment of the value calculated at the payment date after a **vesting period of four years;** value of the share on awarding/payment: unweighted arithmetic mean of the Xetra closing prices five trading days before to five trading days after the meeting of the Supervisory Board that approves the consolidated financial statement; additional payment of the sum total of all dividends per share paid out during the vesting period; changes in a cumulative amount of 10% or more in the value of the HR-SAs caused by structural measures trigger an adjustment; the Board member has no entitlement to the delivery of shares.
Negative variable total bonus = payment of EUR 0 variable remuneration. Any minus value of the variable total bonus for a financial year is transferred in full to the bonus bank (see "Medium-term" column).		

Handling of payment of variable remuneration components in special cases

In the event of voluntary resignation or termination/dismissal by the company for a compelling reason or if an offered contract extension on the same conditions (exception: the member of the Executive Board has reached the age of 60 and has served as a member of the Executive Board for two terms of office) is declined, all rights to payment of the balances from the bonus bank and from the HR-SAs are forfeited.

If the contractual relationship ends normally prior to the end of the vesting period for the bonus bank or HR-SAs, and if a contract extension is not offered, the member of the Executive Board retains his entitlements to payment from the bonus bank – making reference to a defined forward projection of the bonus bank – and for already awarded HR-SAs.

All claims to the allocation of amounts to the bonus bank and/or awarding of HR-SAs after leaving the company are excluded. In cases where an individual leaves the company because of non-reappointment, retirement or death this shall not apply with respect to claims to variable remuneration acquired (pro rata) in the final year of the Board member's work for the company.

Variable remuneration under the old remuneration structure (until 2011)

The virtual stock option plan with stock appreciation rights existing under the old remuneration structure remains in force for all members of the Executive Board until all stock appreciation rights have been exercised or have lapsed. In the 2017 financial year no further stock appreciation rights were granted to active Board members. Of the stock appreciation rights granted in previous years, active and former Board members exercised amounts totalling EUR 0.6 million (previous year: EUR 0.7 million) in 2017.

As at 31 December 2017 active members of the Executive Board had at their disposal a total of 293 (39,585) granted, but not yet exercised stock appreciation rights with a fair value of EUR 9.4 thousand (EUR 366.7 thousand).

Continued payment in case of disability

In the event of temporary incapacity for work the fixed annual salary shall continue to be paid in the same amount, at most until termination of the service contract.

If a member of the Executive Board is permanently incapacitated for work during the period of the service contract, the service contract shall terminate at the end of the sixth month after which the permanent incapacity for work is established – although no later than at the end of the service contract.

Other information

The contracts of the Board members do not include a commitment to benefits in the event of a premature termination of employment on the Executive Board owing to a change of control. Only the conditions for the granting of share-based remuneration in the form of stock appreciation rights provide for special exercise options in the event of the merger, spin-off or demerger of Hannover Re into another legal entity.

With regard to Item 4.2.3. Para. 2 "Caps on the amount of variable compensation elements in management board contracts" and Item 4.2.3 Para. 4 "Caps on severance payments in management board contracts" of the German Corporate Governance Code, we would refer the reader to our remarks in the 2017 Declaration of Conformity contained in the section "Statement of enterprise management practices" on page 106 et seq. of this Group Annual Report.

Amount of remuneration received by the Executive Board

The total remuneration received by the Executive Board of Hannover Rück SE on the basis of its work for Hannover Rück SE and the companies belonging to the Group is calculated from the sum of all the components set out in the following table pursuant to DRS 17.

The remuneration (excluding pension payments) received by former members of the Executive Board totalled EUR 0.2 million (EUR 0.3 million).

Total remuneration of the active members of the Executive Board pursuant to DRS 17 (modified in 2010) M 85

Name	Financial year	Non-performance-based remuneration		Performance-based remuneration[1]	
		Basic salary	Non-cash compensation/fringe benefits[2]	Short-term	
				Variable remuneration payable	
in EUR thousand				60%[3]	Netted remuneration from seats with Group bodies
Ulrich Wallin	**2017**	**605.9**	**13.9**	**682.6**	
	2016	596.4	14.2	788.0	
Sven Althoff	**2017**	**296.7**	**16.7**	**305.8**	
	2016	280.0	15.6	419.0	
Claude Chèvre	**2017**	**380.0**	**1.8**	**404.1**	
	2016	380.0	13.6	476.8	
Jürgen Gräber	**2017**	**463.4**	**15.0**	**446.9**	
	2016	445.1	7.1	615.3	
Dr. Klaus Miller	**2017**	**374.0**	**3.1**	**333.0**	
	2016	356.1	3.9	400.8	
Dr. Michael Pickel	**2017**	**374.0**	**19.8**	**321.7**	**3.3**
	2016	356.1	12.6	478.0	
Roland Vogel	**2017**	**450.7**	**16.5**	**497.4**	**67.0**
	2016	422.9	17.0	450.6	58.2
Total	**2017**	**2,944.7**	**86.8**	**2,991.5**	**70.3**
Total	2016	2,836.6	84.0	3,628.5	58.2

1 As at the balance sheet date no Board resolution was available regarding the performance-based remuneration for 2017. The variable remuneration is recognised on the basis of estimates and the provisions constituted accordingly.

2 The non-cash compensation has been carried in the amounts established for tax purposes.

3 In 2017 EUR 8,500 less in variable remuneration was paid out to Board members for 2016 than had been reserved.

4 The nominal amount is stated; full or partial repayment in 2021, depending on the development until such time of the balance in the bonus bank. In 2017 altogether EUR 2,800 less than had been originally reserved was allocated to the bonus bank for 2016.

5 The nominal amount is stated; virtual Hannover Re share awards are automatically granted in an amount equivalent to 20% of the variable remuneration. The equivalent amount will be paid in 2022 at the prevailing share price of Hannover Re. In 2017 nominal amounts of EUR 2,800 less than had been originally reserved were used as a basis for allocation of the 2016 share awards.

6 In order to calculate the number of share awards for 2017 reference was made to the Xetra closing price of the Hannover Re share on 29 December 2017 (EUR 104.90). The number to be actually awarded is established from the arithmetic mean of the Xetra closing prices of the Hannover Re share in a period from five trading days before to five trading days after the meeting of the Supervisory Board that approves the consolidated financial statement in March 2018. The applicable market price of the Hannover Re share had increased from EUR 102.80 (30 December 2016) to EUR 107.15 by the allocation date (16 March 2017) of the share awards for 2016; the share awards actually allocated for 2016 are shown here, not those estimated in the 2016 Annual Report.

	Performance-based remuneration[1]		Total	Number of share awards[6]
	Medium-term	Long-term		2016 = Actual 2017 = Estimate
	Bonus bank	Share awards		
	20% (allocation)[4]	20% (allocation)[5]		
in EUR thousand				
	227.5	**227.5**	**1,757.4**	**2,132**
	262.7	262.7	1,924.0	2,248
	101.9	**101.9**	**823.0**	**1,007**
	139.7	139.7	994.0	1,132
	134.8	**134.8**	**1,055.5**	**1,241**
	158.9	158.9	1,188.2	1,475
	149.0	**149.0**	**1,223.3**	**1,470**
	205.1	205.1	1,477.7	1,615
	111.0	**111.0**	**932.1**	**1,043**
	133.6	133.6	1,028.0	1,219
	107.2	**107.2**	**929.9**	**1,084**
	159.3	159.3	1,165.3	1,270
	165.8	**165.8**	**1,296.2**	**1,560**
	150.2	150.2	1,190.9	1,285
	997.2	**997.2**	**8,017.4**	**9,537**
	1,209.5	1,209.5	8,968.1	10,244

The following table shows the expense for share-based remuneration of the Executive Board in the financial year.

The table is to be viewed independently of the presentation of the total remuneration received by active members of the Executive Board pursuant to DRS 17.

Total expense for share-based remuneration of the Executive Board M 86

Name in EUR thousand	Year	Stock appreciation rights exercised	Change in reserve in 2017 for stock appreciation rights	Payment of share awards	Change in reserve for share awards from previous years[1]	Expense for share awards allocated in current financial year[2]	Total
Ulrich Wallin	**2017**	**102.6**	**(102.6)**	**406.6**	**(88.6)**	**76.6**	**394.6**
	2016	102.6	(82.8)	608.8	(452.8)	60.5	236.3
Sven Althoff[3]	**2017**	**25.7**	**(24.0)**	**109.6**	**18.9**	**20.3**	**150.5**
	2016	44.6	(37.6)	0.0	60.9	24.1	92.0
Claude Chèvre	**2017**	**–**	**–**	**232.8**	**(35.8)**	**45.9**	**242.9**
	2016	–	–	56.5	106.6	40.0	203.1
Jürgen Gräber	**2017**	**89.2**	**(89.2)**	**316.6**	**(93.9)**	**32.4**	**255.1**
	2016	89.2	(72.0)	427.3	(308.7)	34.3	170.1
Dr. Klaus Miller	**2017**	**14.9**	**(14.9)**	**232.8**	**(119.0)**	**21.0**	**134.8**
	2016	14.9	(12.0)	329.3	(171.9)	48.4	208.7
Dr. Michael Pickel	**2017**	**80.3**	**(80.3)**	**232.8**	**(175.0)**	**21.9**	**79.7**
	2016	80.3	(64.8)	326.2	(142.3)	71.3	270.7
Roland Vogel	**2017**	**44.6**	**(44.6)**	**250.1**	**(72.7)**	**31.5**	**208.9**
	2016	44.6	(36.0)	389.7	(332.6)	26.1	91.8
Total	**2017**	**357.3**	**(355.6)**	**1,781.3**	**(566.1)**	**249.6**	**1,466.5**
Total	2016	376.3	(305.2)	2,137.8	(1,240.8)	304.7	1,272.7

1 The change in the reserve for share awards from previous years derives from the higher market price of the Hannover Re share, the dividend approved for 2016, the spreading of the expense for share awards across the remaining period of the individual service contracts and the payout of the share awards allocated for 2012.

2 The expense for share awards is spread across the remaining period of the individual service contracts. This gives rise to a difference relative to the nominal amount shown in the table of total remuneration.

3 The expenses for stock appreciation rights of Mr. Althoff and the payment of share awards to him relate to his work as a senior executive until 2014.

The following two tables show the remuneration of the Executive Board in the 2017 financial year in accordance with the recommendations of the German Corporate Governance Code:

German Corporate Governance Code, Item 4.2.5 Para. 3 – Table 1 (target/minimum/maximum remuneration as nominal amounts) M 87

Benefits granted	Ulrich Wallin Chief Executive Officer				Sven Althoff Board member with divisional responsibility			
in EUR thousand	2016	2017	2017 (Min)	2017 (Max)	2016	2017	2017 (Min)	2017 (Max)
Fixed remuneration	596.4	605.9	605.9	605.9	280.0	296.7	296.7	296.7
Fringe benefits	14.2	13.9	13.9	13.9	15.6	16.7	16.7	16.7
Total	**610.6**	**619.8**	**619.8**	**619.8**	**295.6**	**313.4**	**313.4**	**313.4**
One-year variable remuneration	504.0	523.0	0.0	1,046.0	252.0	267.0	0.0	534.0
Multi-year variable remuneration	390.8	400.8	(558.0)	749.6	188.7	201.0	(267.2)	379.0
Bonus bank 2016 (2020 [1])/ 2017 (2021 [1])	168.0	174.3	(610.2)	348.7	84.0	89.0	(290.2)	178.0
Share Awards 2016 (2021 [1])/ 2017 (2022 [1]) [2]	168.0	174.3	0.0	348.7	84.0	89.0	0.0	178.0
Dividend on share awards for 2015 [3]	54.8	0.0	0.0	0.0	20.7	0.0	0.0	0.0
Dividend on share awards for 2016 [3]	0.0	52.2	52.2	52.2	0.0	23.0	23.0	23.0
Total	**1,505.4**	**1,543.6**	**61.8**	**2,415.4**	**736.3**	**781.4**	**46.2**	**1,226.4**
Service cost [4]	144.2	163.2	163.2	163.2	37.4	46.9	46.9	46.9
Total remuneration	**1,649.6**	**1,706.8**	**225.0**	**2,578.6**	**773.7**	**828.3**	**93.1**	**1,273.3**

Benefits granted	Dr. Klaus Miller Board member with divisional responsibility				Dr. Michael Pickel Board member with divisional responsibility			
in EUR thousand	2016	2017	2017 (Min)	2017 (Max)	2016	2017	2017 (Min)	2017 (Max)
Fixed remuneration	356.1	374.0	374.0	374.0	356.1	374.0	374.0	374.0
Fringe benefits	3.9	3.1	3.1	3.1	12.6	19.8	19.8	19.8
Total	**360.0**	**377.1**	**377.1**	**377.1**	**368.7**	**393.8**	**393.8**	**393.8**
One-year variable remuneration	288.0	288.0	0.0	576.0	288.0	288.0	0.0	576.0
Multi-year variable remuneration	223.1	221.3	(330.7)	413.3	224.2	222.7	(329.3)	414.7
Bonus bank 2016 (2020 [1])/ 2017 (2021 [1])	96.0	96.0	(360.0)	192.0	96.0	96.0	(360.0)	192.0
Share Awards 2016 (2021 [1])/ 2017 (2022 [1]) [2]	96.0	96.0	0.0	192.0	96.0	96.0	0.0	192.0
Dividend on share awards for 2015 [3]	31.1	0.0	0.0	0.0	32.2	0.0	0.0	0.0
Dividend on share awards for 2016 [3]	0.0	29.3	29.3	29.3	0.0	30.7	30.7	30.7
Total	**871.1**	**886.4**	**46.4**	**1,366.4**	**880.9**	**904.5**	**64.5**	**1,384.5**
Service cost [4]	89.0	86.1	86.1	86.1	123.4	152.8	152.8	152.8
Total remuneration	**960.1**	**972.5**	**132.5**	**1,452.5**	**1,004.3**	**1,057.3**	**217.3**	**1,537.3**

1 Year of payment
2 Maximum value when awarded, amount paid out dependent upon the share price in the year of payment and the dividends paid until such time.
3 In the case of Mr. Althoff the dividend also refers to share awards from his work as a senior executive at Hannover Re.
4 For details of the service cost see the table "Pension commitments" on page 127.
The service costs for Mr. Chèvre and Mr. Miller refer to the funding contribution for 2016 and for the first time to the personnel expense for 2017.

Claude Chèvre Board member with divisional responsibility				Jürgen Gräber Board member with divisional responsibility Coordinator of worldwide property & casualty reinsurance			
2016	2017	2017 (Min)	2017 (Max)	2016	2017	2017 (Min)	2017 (Max)
380.0	380.0	380.0	380.0	445.1	463.4	463.4	463.4
13.6	1.8	1.8	1.8	7.1	15.0	15.0	15.0
393.6	**381.8**	**381.8**	**381.8**	**452.2**	**478.4**	**478.4**	**478.4**
342.0	342.0	0.0	684.0	360.0	390.0	0.0	780.0
260.6	260.1	(395.4)	488.1	281.5	298.8	(448.7)	558.8
114.0	114.0	(427.5)	228.0	120.0	130.0	(487.5)	260.0
114.0	114.0	0.0	228.0	120.0	130.0	0.0	260.0
32.6	0.0	0.0	0.0	41.5	0.0	0.0	0.0
0.0	32.1	32.1	32.1	0.0	38.8	38.8	38.8
996.2	**983.9**	**(13.6)**	**1,553.9**	**1,093.7**	**1,167.2**	**29.7**	**1,817.2**
150.1	140.2	140.2	140.2	95.1	109.6	109.6	109.6
1,146.3	**1,124.1**	**126.6**	**1,694.1**	**1,188.8**	**1,276.8**	**139.3**	**1,926.8**

Roland Vogel Chief Financial Officer			
2016	2017	2017 (Min)	2017 (Max)
422.9	450.7	450.7	450.7
17.0	16.5	16.5	16.5
439.9	**467.2**	**467.2**	**467.2**
288.0	382.5	0.0	765.0
224.8	285.7	(373.7)	540.7
96.0	127.5	(404.4)	255.0
96.0	127.5	0.0	255.0
32.8	0.0	0.0	0.0
0.0	30.7	30.7	30.7
952.7	**1,135.4**	**93.5**	**1,772.9**
53.8	53.8	53.8	53.8
1,006.5	**1,189.2**	**147.3**	**1,826.7**

German Corporate Governance Code, Item 4.2.5 Para. 3 – Table 2 (cash allocations in 2016 and 2017) M 88

Allocation	Ulrich Wallin Chief Executive Officer		Sven Althoff Board member with divisional responsibility	
in EUR thousand	2016	2017	2016	2017
Fixed remuneration	596.4	605.9	280.0	296.7
Fringe benefits	14.2	13.9	15.6	16.7
Total	**610.6**	**619.8**	**295.6**	**313.4**
One-year variable remuneration [1]	717.6	722.4	362.4	363.6
Multi-year variable remuneration	916.2	710.2	44.6	135.3
Bonus bank 2012/2013	204.8	201.0	0.0	0.0
Share Awards 2011/2012 [2]	608.8	406.6	0.0	109.6
Stock participation rights 2010 (2015–2020 [3])	102.6	102.6	16.3	16.3
Stock participation rights 2011 (2016–2021 [4])	0.0	0.0	28.3	9.4
Total	**2,244.4**	**2,052.4**	**702.6**	**812.3**
Service cost [5]	144.2	163.2	37.4	46.9
Total remuneration	**2,388.6**	**2,215.6**	**740.0**	**859.2**

Allocation	Dr. Klaus Miller Board member with divisional responsibility		Dr. Michael Pickel Board member with divisional responsibility	
in EUR thousand	2016	2017	2016	2017
Fixed remuneration	356.1	374.0	356.1	374.0
Fringe benefits	3.9	3.1	12.6	19.8
Total	**360.0**	**377.1**	**368.7**	**393.8**
One-year variable remuneration [1]	390.0	391.8	413.4	411.3
Multi-year variable remuneration	461.5	361.2	523.8	432.9
Bonus bank 2012/2013	117.3	113.5	117.3	119.8
Share Awards 2011/2012 [2]	329.3	232.8	326.2	232.8
Stock participation rights 2010 (2015–2020 [3])	14.9	14.9	80.3	80.3
Stock participation rights 2011 (2016–2021 [4])	0.0	0.0	0.0	0.0
Total	**1,211.5**	**1,130.1**	**1,305.9**	**1,238.0**
Service cost [5]	89.0	86.1	123.4	152.8
Total remuneration	**1,300.5**	**1,216.2**	**1,429.3**	**1,390.8**

1 This refers in each case to payment of the variable remuneration for the previous year. Remuneration for seats with Group bodies that is counted towards the variable remuneration accrues in the year of occurrence. The company's Supervisory Board only decides on the final amount paid out for the 2017 financial year after the remuneration report has been drawn up.
2 In the case of Mr. Althoff the payment of share awards in 2012 relates to his work as a senior executive before his appointment as a member of the Executive Board.
3 Stock appreciation rights were awarded in 2010, exercise option at the discretion of the Executive Board until 31 December 2020 in the following tranches: 60% from 2015, 80% from 2016, 100% from 2017 onwards.
4 Stock appreciation rights were awarded to Mr. Althoff in 2011 as a senior executive, exercise option discretionary until 31 December 2021 in the following tranches: 60% from 2016, 80% from 2017, 100% from 2018 onwards
5 For details of the service cost see the table "Pension commitments" on page 127.
The service costs for Mr. Chèvre and Mr. Miller refer to the funding contribution for 2016 and for the first time to the personnel expense for 2017.

Claude Chèvre Board member with divisional responsibility	
2016	2017
380.0	380.0
13.6	1.8
393.6	**381.8**
463.8	474.0
173.8	346.3
117.3	113.5
56.5	232.8
0.0	0.0
0.0	0.0
1,031.2	**1,202.1**
150.1	140.2
1,181.3	**1,342.3**

Jürgen Gräber Board member with divisional responsibility Coordinator of worldwide property & casualty reinsurance	
2016	2017
445.1	463.4
7.1	15.0
452.2	**478.4**
534.6	519.0
676.0	554.1
159.5	148.3
427.3	316.6
89.2	89.2
0.0	0.0
1,662.8	**1,551.5**
95.1	109.6
1,757.9	**1,661.1**

Roland Vogel Chief Financial Officer	
2016	2017
422.9	450.7
17.0	16.5
439.9	**467.2**
430.1	421.6
560.3	415.6
126.0	120.8
389.7	250.2
44.6	44.6
0.0	0.0
1,430.3	**1,304.4**
53.8	53.8
1,484.1	**1,358.2**

Sideline activities of the members of the Executive Board

The members of the Executive Board require the approval of the Supervisory Board to take on sideline activities. This ensures that neither the remuneration granted nor the time required for this activity can create a conflict with their responsibilities on the Executive Board. If the sideline activities involve seats on supervisory boards or comparable control boards, these are listed and published in the Annual Report of Hannover Rück SE. The remuneration received for such seats at Group companies and other board functions is deducted when calculating the variable bonus and shown separately in the table of total remuneration.

Retirement provision

Defined benefit pension commitment (appointment before 2009)

The contracts of members of the Executive Board first appointed prior to 2009 contain commitments to an annual retirement pension calculated as a percentage of the pensionable fixed annual remuneration (defined benefit). The target pension is at most 50% of the monthly fixed salary payable on reaching the age of 65. A non-pensionable fixed remuneration component was introduced in conjunction with the remuneration structure applicable from 2011 onwards.

Defined contribution pension commitment (appointment from 2009 onwards)

The commitments given to members of the Executive Board from 2009 onwards are based on a defined contribution scheme.

A Board member who has reached the age of 65 and left the company's employment receives a life-long retirement pension. The amount of the monthly retirement pension is calculated according to the reference date age (year of the reference date less year of birth) and the funding contribution on the reference date. The annual funding contribution for these contracts is paid by the company in the amount of a contractually specified percentage of the pensionable income (fixed annual remuneration as at the contractually specified reference date).

In both contract variants (i. e. defined benefit and defined contribution) other income received while drawing the retirement pension is taken into account pro rata or in its entirety under certain circumstances (e. g. in the event of incapacity for work or termination of the service contract before reaching the age of 65).

Provision for surviving dependants

If the Board member dies during the period of the service contract, the surviving spouse – or alternatively the eligible children – shall be entitled to continued payment of the fixed monthly salary for the month in which the Board member dies and the six months thereafter, at most until termination of the service contract. If the member of the Executive Board dies after pension payments begin, the surviving spouse and alternatively the dependent children shall receive continued payment of the retirement pension for the month of death and the following six months.

The widow's pension amounts to 60% of the retirement pay that the Board member received or would have received if he had been incapacitated for work at the time of his death.

An orphan's pension shall be granted in the amount of 15% – in the case of full orphans 25% (final-salary pension commitment) or 30% (contribution-based pension commitment) – of the retirement pay that the Board member received or would have received on the day of his death if the pensionable event had occurred owing to a permanent incapacity for work.

Adjustments

The following parameters are used for adjustments to retirement, widow's and orphan's benefits: the price index for the cost of living of all private households in Germany (contracts from 2001 onwards) or the price index for the cost of living of four-person households of civil servants and higher-income salaried employees (contracts from 1997 to 2000).

Current pensions based on the commitments given from 2009 onwards (defined contribution commitment) are increased annually by at least 1% of their most recent (gross) amount.

Pension payments to former members of the Executive Board

The pension payments to former 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. The projected benefit obligation of the pension commitments to former members of the Executive Board amounted to altogether EUR 24.7 million (EUR 25.3 million).

Pension commitments **M 89**

Name in EUR thousand	Financial year	Attainable annual pension (age 65)	DBO 31.12.	Personnel expense	Annual funding contribution [1]	Premium
Ulrich Wallin	**2017**	**257.5**	**5,830.6**	**163.2**	**–**	**–**
	2016	229.1	5,370.1	144.2	–	–
Sven Althoff [2, 3]	**2017**	**92.5**	**1,222.4**	**46.9**	**25%**	**70.0**
	2016	92.2	1,185.3	37.4	25%	70.0
Claude Chèvre [4]	**2017**	**118.7**	**868.8**	**140.2**	**39.5%**	**150.1**
	2016	118.4	731.7	–	39.5%	150.1
Jürgen Gräber	**2017**	**182.5**	**3,840.2**	**109.6**	**–**	**–**
	2016	182.5	3,731.1	95.1	–	–
Dr. Klaus Miller [4]	**2017**	**55.0**	**652.2**	**86.1**	**25%**	**93.5**
	2016	53.3	557.8	–	25%	89.0
Dr. Michael Pickel	**2017**	**160.0**	**2,712.5**	**152.8**	**–**	**–**
	2016	135.5	2,509.2	123.4	–	–
Roland Vogel [2, 5]	**2017**	**96.9**	**1,674.9**	**53.8**	**25%**	**110.4**
	2016	94.3	1,623.5	53.8	25%	105.7
Total	**2017**	**963.1**	**16,801.6**	**752.6**		**424.0**
Total	2016	905.3	15,708.7	453.9		414.8

1 Percentage of pensionable income (fixed annual remuneration as at the contractually specified reference date).
2 Mr. Althoff and Mr. Vogel were first granted a pension commitment prior to 2001 on the basis of their service to the company prior to their appointment to the Executive Board; the earned portion of the commitment from the Unterstützungskasse is therefore established as a proportion (in the ratio [currently attained service years since entry]/[attainable service years from entry to exit age]) of the final benefit. Measurement under IAS 19 consequently uses the defined benefit method. The values shown include the entitlements prior to appointment to the Executive Board, which in accordance with a resolution of the company's Supervisory Board shall remain unaffected by the pension commitment as a member of the Executive Board.
3 The guaranteed interest rate is 3.25%.
4 Measured under IAS 19 as a defined benefit commitment for the first time as at 31 December 2016. The guaranteed interest rate is 2.25%.
5 The guaranteed interest rate under the basic insurance is 3.25%; the interest rate for the bonus insurance is 1.25%.

Remuneration of the Supervisory Board

The remuneration of the Supervisory Board is determined by the Annual General Meeting of Hannover Rück SE and regulated by the Articles of Association.

In accordance with § 14 of the Articles of Association as amended on 30 May 2016 and the resolution of the Annual General Meeting on 7 May 2013, the members of the Supervisory Board receive fixed annual remuneration of EUR 30,000 per member in addition to reimbursement of their expenses. Furthermore, each member of the Supervisory Board receives variable remuneration measured according to the average earnings per share (EPS) of the company over the past three financial years preceding the Annual General Meeting at which the actions of the Supervisory Board for the last of these three years are ratified. The variable remuneration amounts to EUR 330 for each EUR 0.10 average earnings per share (EPS) of the company. The measurement of this performance-based remuneration component according to the average earnings per share of the last three financial years ensures that the variable remuneration is geared to sustainable corporate development. The variable remuneration is limited to an annual maximum of EUR 30,000. The Chairman of the Supervisory Board receives twice the aforementioned remuneration amounts and the Deputy Chairman of the Supervisory Board receives one-and-a-half times the said amounts.

In addition, the members of the Finance and Audit Committee formed by the Supervisory Board receive remuneration of EUR 15,000 for their committee work and the members of the Standing Committee formed by the Supervisory Board receive remuneration of EUR 7,500. In this case, too, the Chairman of the Committee receives twice and the Deputy Chairman one-and-a-half times the stated amounts. No remuneration is envisaged for the Nomination Committee.

Members who have only belonged to the Supervisory Board or one of its Committees for part of the financial year receive the remuneration pro rata temporis.

All the members of the Supervisory Board receive an attendance allowance of EUR 1,000 for their participation in each meeting of the Supervisory Board and the Committees in addition to the aforementioned remuneration. If a meeting of the Supervisory Board and one or more committee meetings fall on the same day, the attendance allowance for this day is only paid once in total.

Individual remuneration received by the members of the Supervisory Board M90

Name in EUR thousand[1]	Function	Type of remuneration	2017	2016
Herbert K. Haas[2]	Chairman of the • Supervisory Board • Standing Committee • Finance and Audit Committee • Nomination Committee	Fixed remuneration	100.0	100.0
		Variable remuneration	100.7	92.5
		Remuneration for committee work	85.0	85.0
		Attendance allowances	14.0	18.0
			299.7	**295.5**
Dr. Klaus Sturany	Deputy Chairman of the Supervisory Board Member of the Standing Committee	Fixed remuneration	45.0	45.0
		Variable remuneration	45.5	44.0
		Remuneration for committee work	7.5	7.5
		Attendance allowances	6.0	5.0
			104.0	**101.5**
Wolf-Dieter Baumgartl[2]	Member of the • Supervisory Board • Standing Committee • Finance and Audit Committee • Nomination Committee	Fixed remuneration	33.5	50.0
		Variable remuneration	33.8	46.2
		Remuneration for committee work	22.5	22.5
		Attendance allowances	9.0	14.0
			98.8	**132.7**
Frauke Heitmüller[3]	Member of the Supervisory Board	Fixed remuneration	30.0	30.0
		Variable remuneration	30.3	29.4
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			64.3	**63.4**
Otto Müller[3]	Member of the Supervisory Board	Fixed remuneration	30.0	30.0
		Variable remuneration	30.3	29.4
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			64.3	**63.4**
Dr. Andrea Pollak	Member of the • Supervisory Board • Nomination Committee	Fixed remuneration	30.0	30.0
		Variable remuneration	30.3	29.4
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			64.3	**63.4**
Dr. Immo Querner[2]	Member of the Supervisory Board	Fixed remuneration	50.0	50.0
		Variable remuneration	50.3	46.2
		Remuneration for committee work	10.0	10.0
		Attendance allowances	7.0	7.0
			117.3	**113.2**

Name in EUR thousand[1]	Function	Type of remuneration	2017	2016
Dr. Erhard Schipporeit	Member of the • Supervisory Board • Finance and Audit Committee	Fixed remuneration	30.0	30.0
		Variable remuneration	30.3	29.4
		Remuneration for committee work	15.0	15.0
		Attendance allowances	7.0	9.0
			82.3	**83.4**
Maike Sielaff[3]	Member of the Supervisory Board	Fixed remuneration	30.0	30.0
		Variable remuneration	30.3	29.4
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			64.3	**63.4**
Total			**959.3**	**979.9**

[1] Amounts excluding reimbursed VAT
[2] Including supervisory board remuneration and remuneration for committee work as well as advisory board remuneration received from entities affiliated with the company
[3] Employee representatives

The individualised presentation of the remuneration shows the expense charged to the financial year in question. Since the remuneration for a financial year becomes due at the end of the Annual General Meeting that ratifies the acts of the Supervisory Board for the financial year, the relevant reserve allocations for the variable remuneration are recognised allowing for any fractional amounts. Value-added tax payable upon the remuneration is reimbursed by the company.

In the year under review no payments or benefits were granted to members of the Supervisory Board in return for services provided individually outside the committee work described above, including for example consulting or mediation services, with the exception of the remuneration paid to employee representatives on the basis of their employment contracts.

Loans to members of the management boards and contingent liabilities

In order to avoid potential conflicts of interest, Hannover Rück SE or its subsidiaries may only grant loans to members of the Executive Board or Supervisory Board or their dependants with the approval of the Supervisory Board.

In 2017 no loan relationships existed with members of the Executive Board or Supervisory Board of Hannover Rück SE, nor did the company enter into any contingent liabilities for members of the management boards.

Securities transactions and shareholdings (directors' dealings)

Dealings in shares, options and derivatives of Hannover Rück SE effected by members of the Executive Board or Supervisory Board of Hannover Re or by other persons with managerial functions who regularly have access to insider information concerning the company and who are authorised to take major business decisions – as well as such dealings conducted by certain persons closely related to the aforementioned individuals – in excess of EUR 5,000 are to be reported pursuant to § 15a Securities Trading Act (WpHG). The reportable transactions listed in the following table took place in the 2017 financial year.

Members of the Supervisory Board and Executive Board of Hannover Rück SE as well as their spouses or registered partners and first-degree relatives hold less than 1.0% of the issued shares. The total holding as at 31 December 2017 amounted to 0.004% (0.004%) of the issued shares, i.e. 4,681 (4,625) shares.

Securities transactions M 91

Name	Type of transaction	Type of security	ISIN	Transaction date	Number of securities	Price in EUR	Total volume in EUR
Herbert K. Haas	Sale	Share	DE0008402215	22.3.2017	1,415	106.20	150,018.30
Herbert K. Haas	Purchase	Share	DE0008402215	22.3.2017	1,415	106.30	150,414.50

Remuneration of staff and senior executives

Structure and system

The remuneration scheme for senior executives below the Executive Board (management levels 2 and 3) and for key function holders in Germany belonging as a matter of principle to the ranks of senior executives consists of a fixed annual salary and a system of variable remuneration. This is comprised of a short-term variable remuneration component, the annual cash bonus, and a long-term share-based remuneration component, the Share Award Plan. This variable remuneration has been uniformly applied worldwide since 1 January 2012 to all Group senior executives (i. e. Managing Directors, Directors and General Managers). As part of the reorientation of the remuneration system for senior executives the Share Award Plan of the Executive Board was consciously extended to include management levels 2 and 3. Given that at the same time the stock appreciation rights plan for senior executives was cancelled with effect from the 2012 allocation year, this means that a uniform share-based remuneration component has been maintained for the Executive Board and senior executives alike.

Members of staff on the levels of Chief Manager, Senior Manager and Manager are also able to participate in a variable remuneration system through the Group Performance Bonus (GPB). The Group Performance Bonus (GPB) is a remuneration model launched in 2004 that is linked to the success of the company. This tool is geared to the minimum return on equity of 750 basis points above the risk-free interest rate and the return on equity actually generated. For those participating in the GPB 14.15 monthly salary payments are guaranteed; a maximum of 16.7 salary payments is attainable.

The group of participants and the total number of eligible participants in the variable remuneration system of Hannover Re are set out in the following table.

Measurement of variable remuneration for senior executives

The measurement of the variable remuneration is based on three elements: Group net income, targets in the Property & Casualty and Life & Health business groups and individual targets. The weighting of the elements is dependent upon whether responsibility is carried in a treaty/regional department or in a service department. In the treaty/regional departments the measurement of the variable remuneration is based on weightings of 20% for Group net income, 40% for goal attainment in the respective Property & Casualty or Life & Health business group and 40% for individual goal attainment. In service departments the variable remuneration is based on Group net income and individual targets with a corresponding weighting of 40% and 60%. The degree of goal attainment is defined for both the Group net income and the business groups. Individual targets and the degree of goal attainment are agreed between the senior executive and their supervisor.

The Group net income is measured by the three-year average return on equity (RoE) of the Hannover Re Group above the risk-free interest rate. Goal attainment is calculated as follows: for each individual financial year of the last three financial years it is calculated by how many percentage points the RoE of the Hannover Re Group exceeds the risk-free interest rate. The average of these three differences determines the three-year average RoE above the risk-free interest rate. The risk-free interest rate is the average market interest rate over the past five years for 10-year German government bonds.

If the three-year average RoE above the risk-free interest rate reaches the expected minimum return on equity of 750 basis points, goal attainment stands at 85%. Goal attainment of 100% is recorded at 882 basis points. The maximum possible goal attainment is 200%. A lower limit is placed on goal attainment of -50% (penalty) for management level 2 (Managing Director) and 0% for management level 3 (Director and General Manager).

Group of participants and total number of eligible participants in variable remuneration systems M 92
Valid: 31 December 2017

Participants		Variable remuneration system	Number of eligible participants in the variable remuneration system
Managing Director	Management level 2	Cash bonus and Share Award Plan	**Hannover Re Group** All 160 Group senior executives worldwide receive a cash bonus upon corresponding goal attainment and participate in the Share Award Plan.
Director	Management level 3		
General Manager			
Chief Manager		Group Performance Bonus (GPB)	**Head office Hannover** 754 staff (excl. seconded employees) out of the altogether 1,385 at Hannover head office (incl. 91 senior executives) are GPB-eligible.
Senior Manager			
Manager			

The measurement of the business group targets – which in the case of the treaty/regional departments accounts for 40% of overall goal attainment – is geared to the economic value created. The Excess Return on Capital Allocated (xRoCA) of the business group encompassing the respective area of responsibility, namely Property & Casualty reinsurance or Life & Health reinsurance, is therefore taken as a one-year measurement basis. The xRoCA describes the IVC in relation to the allocated capital and shows the relative excess return generated above and beyond the weighted cost of capital. Goal attainment of 100% exists if the xRoCA in Property & Casualty reinsurance reaches 2% and the xRoCA in Life & Health reinsurance reaches 3%. Negative performance contributions are excluded; the minimum goal attainment is 0%. The maximum possible goal attainment is 150%.

Individual targets are agreed and measured for a period of one year. The degree of goal attainment is between 0% and 100%.

Amount and payment of variable remuneration for senior executives

The overall degree of goal attainment determines the amount of variable remuneration including share awards. On management level 2 (Managing Director) 60% of the variable remuneration is paid out annually in cash and 40% is granted in the form of share awards. On management level 3 (Director and General Manager) the variable remuneration is split into 65% cash payment and 35% granted as share awards.

On management level 3 (Director and General Manager) the minimum variable remuneration amounts to EUR 0 on the premise that the degree of attainment for all goals is 0%. For management level 2 (Managing Director) in treaty/regional departments the minimum limit for the variable remuneration is set at -10% if the degree of goal attainment for Group net income is -50% while at the same time goal attainment of 0% is determined for the divisional targets and individual targets. For management level 2 (Managing Director) in service departments -20% of the variable remuneration is possible as the lower limit, if the degree of goal attainment for Group net income is -50% and at the same time goal attainment of 0% is determined for the individual targets.

In view of the fact that outperformance of up to 200% is possible for Group net income and up to 150% for business group targets, a maximum total degree of goal attainment of 140% can be attained in both treaty/regional departments and service departments. Given outperformance of all targets, a maximum of 140% of the variable remuneration can therefore be attained on management levels 2 and 3.

Allocation and payment of share awards to senior executives

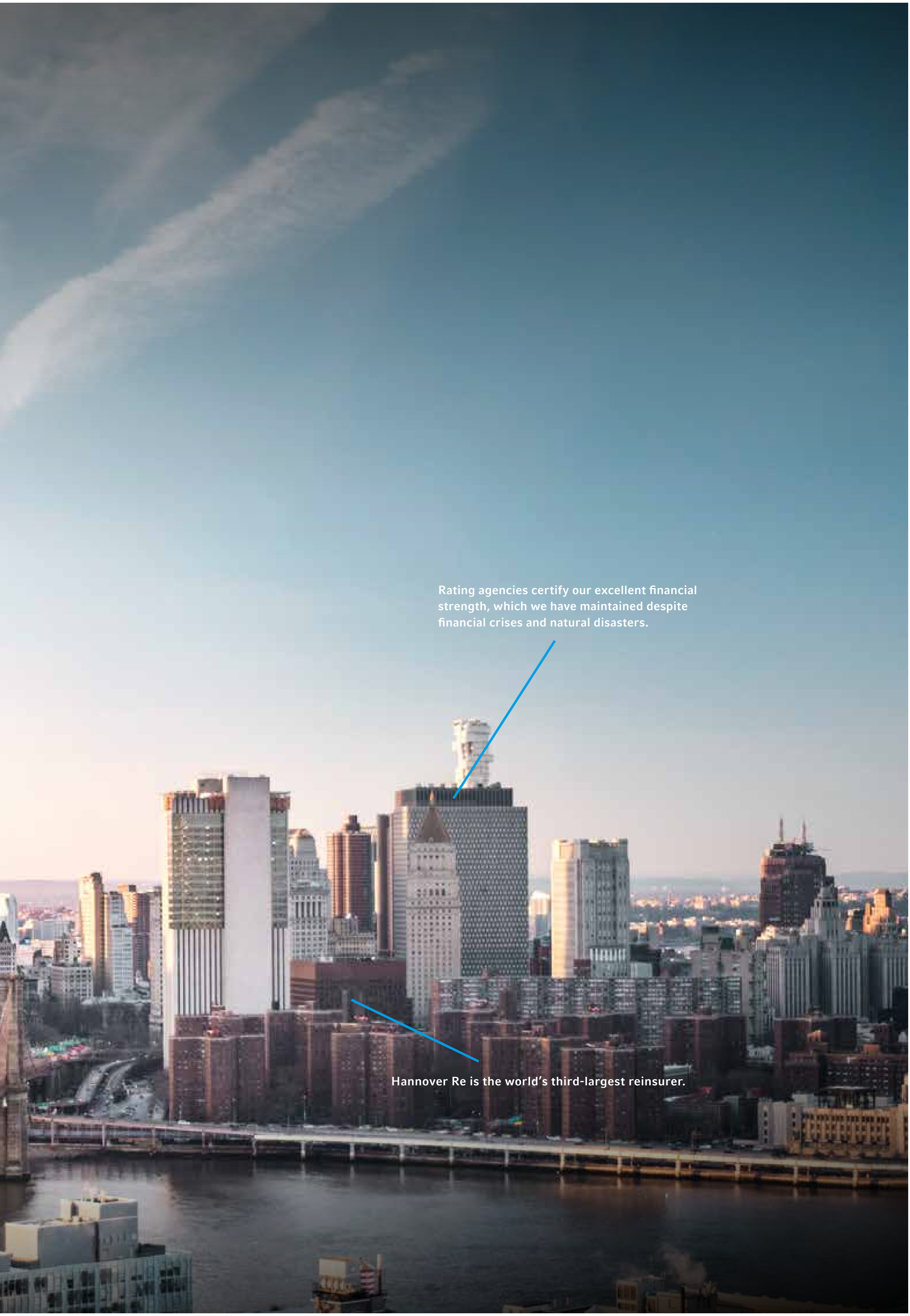
The total number of share awards allocated is determined according to the value per share of Hannover Re. This value is arrived at from the average of the closing prices of the shares in a period extending from 20 trading days before to 10 trading days after the meeting of the Supervisory Board at which the consolidated financial statement is approved. The number of share awards is established by dividing the specified portion of the total bonus (40% or 35%) by the value per share, rounded up to the next full share.

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. The value of the Hannover Re share is again determined from the average of the closing prices of the shares in a period from 20 trading days before to 10 trading days after the meeting of the Supervisory Board that approves the consolidated financial statement. In addition, a sum in the amount of the dividend is paid out for each share award, insofar as dividends were distributed to shareholders. The level of the dividend payment is the sum total of all dividends per share paid out during the period of the share awards multiplied by the number of share awards.

In the case of the allocation and payment of share awards to participants in the Share Award Plan who are located abroad, the rate of exchange used to convert the average share price is the average of the relevant exchange rate in a period from 20 trading days before to 10 trading days after the meeting of the Supervisory Board that approves the consolidated financial statement. For payment of the dividend to participants in the Share Award Plan who are located abroad, the rate of exchange used to convert the dividend per share is the average of the relevant exchange rate in a period from 20 trading days before to 10 trading days after the Annual General Meeting that approves the dividend payment for the financial year just ended.

The cash bonus for the 2016 financial year was paid out in June 2017. The share awards for the 2016 financial year were also allocated in June 2017; they will be paid out in the spring of 2021 including dividends paid for the 2016, 2017, 2018 and 2019 financial years.


Vision creates value.
Through financial strength.
Global reinsurance capital of around USD 440 billion provides long-term protection for investments and assets.


Rating agencies certify our excellent financial strength, which we have maintained despite financial crises and natural disasters.
Hannover Re is the world's third-largest reinsurer.

Outlook

Forecast

- Successful treaty renewals in property and casualty reinsurance as at 1 January 2018
- Stable premium volume in life and health reinsurance
- Return on investment target of ≥ 2.7% for assets under own management
- Group net income expected to exceed EUR 1 billion

Economic developments

Global economy

The pace of the upward trend that can now be observed in virtually all large national economies will show another slight increase overall in the current year. In its year-end forecast the Kiel Institute for the World Economy expects global output to grow by 0.1 percentage points in 2018 to 3.9%. The principal reason why stronger growth is not anticipated is the already high level of production capacity utilisation.

The upturn in advanced economies, which include the United States, Japan and Germany as well as 30 other economically developed countries, will lose scarcely any impetus: after 2.4% in the financial year just ended, growth in the current year is expected to reach 2.3%. Economists expect to see a continuation of expansionary monetary policy, albeit on a slightly more muted scale, increased stimuli from the financial policy side and a fresh resurgence in demand from developing and emerging nations.

The world economy is again faced with numerous political risks in the current year. While the widely held fear that the new US administration might appreciably harm global economic growth through a pivot towards protectionism has so far failed to materialise, the scepticism expressed by the US government towards multilateral agreements could produce unexpected outcomes at any time. In Europe, the current efforts to secure independence for Catalonia clearly highlight the considerable fragility that still permeates the European Union. Risks associated with monetary policy are also taking on greater prominence again. It is entirely possible, for example, that the approaching normalisation of monetary policy could trigger sudden uncertainty on capital markets, triggering episodic corrections.

Growth in gross domestic product (GDP) M 93

in %	2017 (forecast from previous year)	2017 (provisional calculation)	2018 (forecast)
Economic areas			
World economy	3.6	3.8	3.9
Eurozone	1.7	2.4	2.3
Selected countries			
United States	2.5	2.3	2.5
China	6.4	6.8	6.4
India	6.8	6.4	7.3
Japan	1.2	1.8	1.5
Germany	1.7	2.3	2.5

Source: Kiel Institute for the World economy; figures for Germany are calendar-adjusted.

United States
After the US economy gathered more momentum than anticipated in 2017, the Kiel-based experts expect the growth in output to accelerate by a further 0.2 percentage points to 2.5% on the back of the robust state of the economy. Key drivers here are sustained positive consumer sentiment, rising disposable incomes and swelling corporate profits. The latter will be further boosted by the corporate tax reform passed in December, hence leaving room for the forecast to be revised upwards. With financing conditions still favourable, capital spending is also likely to be highly stimulated.

Europe
In the Eurozone, too, the upturn in cyclical activity is set to continue. Industrial output is high and new orders in the manufacturing sector are very brisk, prompting the experts at the Kiel Institute for the World Economy to forecast expansion of 2.3% for 2018. France should be able to modestly extend its growth (+2.0%), with expansion in Spain set to continue at a slower pace (+2.6%). In Italy the balance of power will probably remain problematic even after the parliamentary elections scheduled for March 2018. This also dilutes the potential for economic stimuli, and growth is therefore likely to stay stubbornly low (+1.5%). The recovery in Greece is expected to continue (+2.1%).

In the United Kingdom the uncertainties surrounding Brexit continue to prove a drag on growth, which will likely show another modest decline to 1.4% with a sustained downward tendency. Despite intensive talks over the past year, it was still unclear coming into this year how a smooth transition to a new economic and political framework could be structured for both sides.

With the upswing set to continue, unemployment in the Eurozone is forecast to decrease further from 9.1% in the previous year to 8.5% in the current year. Given the increasingly high utilisation of production capacities, core inflation in the Eurozone will probably see a further gradual increase. The overall rise in consumer prices will, however, likely be on a par with the previous year at 1.7% because oil price effects will work against inflation.

Germany
The Kiel-based economists expect the positive trend in Germany to see a further slight improvement in 2018, hence boosting growth in gross domestic product by two-tenths of a percentage point to 2.5%. With utilisation levels already far above normal, production capacities are close to their limit. Supported by income gains, private consumption will keep on rising, while the construction boom is set to continue in view of unchanged favourable financing conditions. Corporate investments will be another growth driver, as companies increasingly cast aside their reluctance to spend in view of high capacity utilisation and excellent business prospects.

Exports will likely receive another boost from the surging global economy and rise by 5.0% (previous year: 4.3%). Most notably, exports of goods to the Eurozone and Asia will be further expanded. The import side will gain added impetus from the lively state of the domestic economy, with the value of imported goods forecast to grow by 5.7% in the current year (4.8%).

China, India, Japan
The Kiel Institute for the World Economy expects growth in China to experience a further slowdown in 2018, declining to 6.4%. Whereas in recent years the government has been able to stabilise the economy through a more expansive fiscal and monetary policy, it is now dialling this back in favour of qualitative targets. With this in mind, it is focused on stemming rising indebtedness and on the overdue structural transformation towards a service-oriented economy with growth that is socially and environmentally more sustainable.

Following the successful implementation of reforms, India's economy will be able to pick up the pace of expansion again and should grow by 7.3% in 2018. Measured by the size of its economy, India will thus move past the United Kingdom and France to become the fifth-largest national economy in the world.

The pace of growth in Japan, on the other hand, will likely ease somewhat in 2018 to 1.5%, with a further downward trend. While the country is enjoying its longest growth stretch in more than 16 years, this is being driven primarily by strong export demand. Domestic demand, by contrast, remains soft.

Capital markets
In 2018 financial markets are again likely to see promising growth opportunities but also an abundance of volatility and uncertainty. Most significantly, geopolitical risks and protectionism have continued potential for adverse repercussions in some areas. Attention will be focused on two main arenas: firstly, Europe, where it is still impossible to foresee how the Brexit vote will be translated into political and economic reality and, secondly, the United States, where moves by political actors are difficult to predict and may disturb the existing balance due to their impact on global politics.

The basic starting point for the world economy should nevertheless be assessed as positive, since none of the major world economies is in or entering retrocession; instead, they moving in relative lockstep on an expansionary course for the first time in quite a while. The Eurozone is enjoying a stable upturn and benefiting from low interest rates and what is still a comparatively weak euro. The US economy can profit from a historic package of tax reforms, although it remains to be seen whether this is reflected in real economic factors since many business actors likely realise that low taxes today can mean higher charges down the road. Increased commodity prices should, however, assist the economic recovery in numerous emerging markets.

With its announcement that it would scale back its monthly corporate bond purchases but at the same time extend the programme until at least September 2018 against the backdrop of a historically low reference rate, the ECB is standing by its policy of ultra-low interest rates. A change in the key interest rate cannot be expected until well after the bond purchases have stopped. This is intended to support business activity in the Eurozone and bring inflation back towards the ECB's 2% target. More and more voices are, however, drawing attention to the growing dangers of this policy for business and the markets.

In contrast, the US Federal Reserve will progressively turn away from an expansionary policy in response to the economic upswing in the United States and will press ahead with the cycle of rate hikes. This may also be reflected in a strengthening US dollar. Observers are keenly waiting to see how the upcoming personnel changes at the Fed will affect its policy. The new faces, just like the old ones, will face the challenge of keeping inflation under control without jeopardising domestic consumption as well as a need to combat systemic risks with an appropriate overall policy framework.

Central banks will therefore be compelled to strike a new balance, which may lead to elevated volatility. In this context, the goal will still be to put in place a foundation on which national economies can be less dependent on the previous extremely relaxed monetary policy.

International bond markets will thus once again see largely below-average and continued divergent interest rate levels in 2018. In the relevant currency areas for our company we expect slightly upsloping yield curves. For the most part, government bonds with higher risk premiums issued by countries of the European Monetary Union that have been the focus of so much attention of late should continue to stabilise. The prevailing credit cycle in the United States, which has proven its durability, and the stabilisation of emerging markets will continue to shape the economic environment. This may potentially be positively influenced by the ending of austerity drives undertaken by several industrial nations and by a worldwide upswing in private consumption.

Compared to the soaring valuations of US equities, which delivered another exceptional performance in 2017, equities in Europe and emerging markets are lagging somewhat behind the cycle and some markets are even seeing bubble tendencies. These could deflate quickly and trigger turmoil on other markets too. Virtually historically low risk premiums on corporate and financial bonds also suggest that a great deal of positive momentum has already been priced in and the speculative scope for further price jumps on the scale seen in recent years appears rather limited, given that central banks are now stepping away from providing markets with an unconditional supply of liquidity. The extent to which effects associated with expectations placed on Donald Trump's economic policy – which have already been factored into valuations – may be changed by adverse geopolitical developments or restrictive trade measures remains one of the elements of uncertainty for 2018, the implications of which will not leave Europe and emerging economies untouched. After all, the question arises as to who else can invest if everyone is already appropriately invested and liquidity is tending to tighten. On the other hand, we anticipate a thoroughly positive scenario in the emerging economies, which for the most part have proven astonishingly stable in coping with volatility associated with uncertainties in China and the oil price distortions of the recent past. 2018 will thus again be distinguished by an unusual combination of geopolitical and monetary policy uncertainty as well as the risk of bubbles forming in certain asset classes and markets. All in all, it should be noted that the strongly liquidity-driven search by investors for assets offering high returns is leading to inflation in asset prices which in some areas now makes the risk/reward ratio look rather critical. To this extent, increased attention must be paid to investment decisions. Consequently, broad diversification within the investment portfolio will continue to be of considerable importance in 2018.

Insurance industry

Even though the insurance industry still finds itself facing numerous – in some cases considerable – challenges in 2018, the mood throughout the sector is gradually lifting. The reasons here include the generally good overall economic sentiment and the positive approach taken by the industry in addressing the demands of change. This includes the fact that many companies are now actively partnering with insurtechs, as new market entrants, in their business models and finding numerous points of connection for developing new products.

Two key areas drawing attention continue to be the low interest rate environment and increasingly exacting regulatory requirements: the decisions taken by the ECB in the autumn of 2017 indicate that the Eurozone will not see any quick turning away from the extremely low level of interest rates. Life insurers are particularly hard hit, having no choice but to adjust their business models. The Federal Reserve in the United States, on the other hand, continues to chart a course towards higher interest rates in 2018. Going forward, there is at least the prospect that this will also lead to a normalisation of interest rates in Europe. On the regulatory side the industry is currently grappling with implementation of the EU Insurance Distribution Directive (IDD) and the EU General Data Protection Regulation (GDPR).

The industry also remains intensely preoccupied with changes in customer expectations. Against a backdrop of advancing digitalisation, customer habits are becoming increasingly unpredictable. Expectations are also shifting significantly when it comes to benefits and services. Insurers are responding by enhancing the quality of their services, stepping up customer contact management and developing new products that live up to the changed requirements.

The pressure to act on cutting costs remains considerable, prompting companies to accelerate the drive towards digitalisation of their business processes. They are expanding automation of their back office processes and enhancing the flexibility of their IT structures, at the same time opening up further scope to improve customer care. The consolidation process that has already been ongoing in the reinsurance sector for a number of years will continue in 2018. Surplus capacities are thereby eliminated, efficiency increased and operational rigour in the process of transformation maintained on a high level.

Reinsurers are continuing to shift their focus towards the quality of the solutions that they offer. This move is also prompted by the demand side, since their insurance partners are increasingly calling for bespoke solutions. Against this backdrop insurance products are created that actively support their partners' strategic objectives and growth targets.

The increasing need to protect against climate change, elevated political risks and the ever more important segment of cyber risks continue to open up numerous entry points for the industry to launch new products. The digital transformation, in particular, is opening up new avenues for loss prevention. Going forward, it will prompt the industry to cooperate more closely with partners from the technology sector.

Property & Casualty reinsurance

Overview

The heavy natural catastrophe losses incurred in 2017 caused prices to move higher again or at least remain stable across the board for the first time after four years of declining reinsurance rates. The supply of reinsurance capacity – from both the traditional reinsurance sector and the ILS market – nevertheless still exceeded demand. Although the rate increases fell somewhat short of expectations, we are satisfied with the outcome of the treaty renewals in property and casualty reinsurance as at 1 January 2018. On this date 65% of our life and health reinsurance portfolio (excluding facultative business and structured reinsurance) was renegotiated. Our premium volume was boosted by altogether 12.7%, primarily from new business. The increases were particularly marked in Australia, Asia and in the United Kingdom. In addition, we were thoroughly satisfied with the treaty renewals in North America as well as in Western and Eastern Europe. In the area of cyber covers, too, attractive opportunities opened up to expand the portfolio. We noted another sharp rise in demand among customers for reinsurance solutions designed to provide solvency relief, enabling us to book further good gains in the structured reinsurance segment. Including this business, the growth booked from the treaty renewals in property and casualty reinsurance totalled 21.8%.

The pleasing growth achieved in the treaty renewals as at 1 January 2018 was made possible by the higher prices that could be obtained, increases in shares and the expansion of strategic cooperation arrangements. The outcome of the renewals constitutes a solid basis for attainment of our targets in the current financial year.

Expectations for the development of individual markets and lines in property and casualty reinsurance are described in greater detail below, broken down into the areas of Board responsibility.

Property & Casualty reinsurance: Forecast development for 2018 **M 94**

	Volume[1]	Profitability[2]
Target markets		
North America[3]	↗	+
Continental Europe[3]	↗	+
Specialty lines worldwide		
Marine	→	+/–
Aviation	↘	–
Credit, surety and political risks	↗	+
UK, Ireland, London market and direct business	↗	+/–
Facultative reinsurance	↘	+
Global reinsurance		
Worldwide treaty reinsurance[3]	↗	+/–
Catastrophe XL (Cat XL)	↗	+/–
Structured reinsurance and insurance-linked securities	↗	+/–

1 In EUR, development in original currencies can be different
2 ++ = significantly above the cost of capital
+ = above the cost of capital
+/– = on a par with the cost of capital
– = below the cost of capital
3 All lines with the exception of those reported separately

Target markets

North America

In North America we expect to see further mergers and acquisitions, both in the insurance and reinsurance market. This does not, however, in any way have adverse implications for our market position. On the contrary, we anticipate further business opportunities based on our long-standing, close customer relationships and financial strength.

The rate situation turned around sharply for the better on account of the heavy losses from the three hurricanes in the year under review: overall, rates increased as at 1 January 2018 as expected; this is especially true of hurricane-exposed business, although price gains were also recorded under loss-free programmes. In addition, modest rate improvements were booked for casualty business. Against this backdrop we enlarged our business volume in these lines. We see further scope for selective growth in the area of cyber covers, where demand is rising due to heightened awareness in the market of potential loss events. In view of our successful treaty renewals as at 1 January 2018 we expect to book moderately higher growth for our North American portfolio in the current year. Our focus on existing customer relationships remains unchanged.

Continental Europe

In **Germany**, the largest single market within our Continental Europe segment, we were able to assert our prominent position in the treaty renewals as at 1 January 2018. Rates and conditions improved slightly for the most part. Although improved conditions were obtained in industrial fire insurance – which had suffered heavy losses – in the treaty renewals, these are still not adequate in view of the losses. We therefore maintained our selective underwriting policy in this segment. In motor business, our most important single line, we expect to further grow our premium income.

When it comes to covers for cyber risks and extended natural hazards, we expect to see a further rise in demand. A modest premium contraction is anticipated for our domestic market in 2018.

In the **other markets of Continental Europa** the picture was a mixed one. Generally speaking, prices and conditions improved in the treaty renewals as at 1 January 2018. Pleasing growth was booked in Italy and we enlarged our market share in Western Europe. A stabilisation in prices was observed in Eastern Europe; the price increases under loss-affected programmes were very substantial.

For Continental Europe as a whole we expect to book a higher premium volume.

Specialty lines worldwide

Marine

In marine reinsurance we enjoyed satisfactory renewals as at 1 January 2018. The rate increases were most pronounced in the important London Market, especially under loss-impacted programmes. Rates for programmes in Asia and Continental Europe, on the other hand, were largely unchanged. Given these shifts in the market environment compared to last year, we expect a stable premium volume for 2018.

Aviation

In view of the unchanged strained state of the aviation insurance market, and also as a consequence of developments following the hurricane events in the United States and the Caribbean, prices on the reinsurance market stabilised on their low level. In non-proportional business we enlarged our shares in programmes which in our assessment offer profit potential. However, based on our continued selective underwriting approach, especially in relation to proportional acceptances, we anticipate a marginally reduced premium volume for the 2018 financial year.

Credit, surety and political risks

The anticipated upturn in the global economy should have favourable effects on the credit and surety lines as well as political risks business. We expect the level of insolvencies to stabilise. Premiums in credit reinsurance will likely rise on the back of higher shares in selected programmes. In surety reinsurance the stabilisation in developing markets should generate positive stimuli and result in organic growth. In the area of political risks we anticipate growing demand and rising premiums in view of the elevated risk situation around the world. All in all, we are looking for a stable market environment in the current 2018 financial year. Against this backdrop, we expect to book modestly increased premium income and a good result.

United Kingdom, Ireland, London Market and direct business

Rates here were higher in the treaty renewals as at 1 January 2018 on account of the loss experience in the year just ended. Most notably, we achieved appreciable price increases in the motor liability line in the United Kingdom and – depending on how impacted the business was by the hurricane events – for property reinsurance programmes in the London Market. We expect to see the same effect, albeit less marked, on the primary insurance side. New business opportunities for our company are particularly likely to open up with start-up syndicates at Lloyd's. Although we had already substantially boosted the reinsurance premium from cyber treaties in 2017, we expect to further expand our position here in 2018.

Facultative reinsurance

The current financial year is expected to bring increased demand for facultative reinsurance. This is due to the above-average loss incidence in the previous year and also reflects the changed risk appetite of our clients. Our strong customer focus should enable us to benefit disproportionately from the potential market opportunities. We enlarged our reinsurance portfolio in those regions and lines where we were able to push through higher prices. Particularly healthy premium growth is anticipated in North America, Latin America, the Caribbean and Australia. Overall, we expect to see a slight contraction in premium income for our facultative business in the current financial year with sustained healthy results.

A rising premium volume and continued good results are anticipated for our specialty lines in 2018.

Global reinsurance

Worldwide treaty reinsurance

Insurance markets in the **Asia-Pacific region** should stay on their growth track in 2018. We see attractive opportunities here to enlarge our portfolio.

Our organisational set-up with decentralised underwriting at our local branches – under strategic management from Hannover Home Office – is very well received by our customers and will enable us to put our Group capital efficiently on risk going forward, as it has in the past. The extent to which the significant natural catastrophe losses of 2017 will influence local reinsurance capacities and prices in Asia remains to be seen.

As far as our **Japanese** portfolio is concerned, we expect to maintain a stable market position with opportunities to write specific additional treaties or increase our shares. Given the high degree of market concentration, however, we do not include Japan among our growth markets in Asia. At the main renewal date on 1 April 2018 we expect conditions for most lines to at least remain stable; a trend towards rehabilitation should set in for natural catastrophe covers, which will favour reinsurers.

China continues to be the focus of our activities in Asia. Particularly against the backdrop of rapid digitalisation in this country, we are seeking new business opportunities with existing and new partners. In traditional reinsurance business we anticipate a continued oversupply of capacity, which means that a greater emphasis on innovation will play an important strategic role in the cultivation of new business.

The markets of **South and Southeast Asia** offer a broad spectrum of growth opportunities. We are concentrating on expanding our product development activities in retail business. In this way we want to support our customers in the early stages of their development.

The renewal season in **India** as at 1 April 2018 will see efforts to bring about a qualitative improvement in conditions as well as to further expand the business plan pursued by our branch in Mumbai.

In **Australia and New Zealand** the market players expect to see clear improvements in conditions in the run-up to the 1 July renewals. With demand for natural catastrophe capacity sharply higher, a global hardening of the reinsurance market will undoubtedly have clear implications for pricing in Australia and New Zealand too.

All in all, the markets of the Asia-Pacific region offer favourable prospects for further profitable growth. Special mention should also be made here of projects with large customers, some of which have already reach fruition while others are still in the development phase. In the context of our updated strategy cycle for the years 2018 to 2020 this region will play a major part in growing our volume and profit.

Rates in **South Africa** are expected to see continued appreciable hardening in light of the loss situation in the previous year. Having taken a cautious stance in the soft market as part of our cycle management, we shall leverage our good position in order act on business opportunities and further enlarge our portfolio. We therefore anticipate premium growth in the order of 10% for our reinsurance and specialty business in the current year. We also expect to see the business launch of some of our insurtech initiatives.

The market and the placement of reinsurance cessions are just as fiercely competitive in **Latin America** as they are in other insurance markets. In view of the considerable large losses in the year under review, however, original rates and treaty conditions improved appreciably in the renewals as at 1 January 2018. Based on our good market position and superb financial strength, we profited from the easing pressure on prices in the renewals. In addition, we are paying closer attention to an adequate level of primary insurance rates and making our capacity available accordingly. By adhering to our selective underwriting policy, and reflecting the improvement in primary insurance conditions, it is our assumption that we shall be able to profitably expand our portfolio in Latin American markets and the Caribbean in the current financial year.

Hannover Re expects demand for the coverage of **agricultural risks** to continue rising: the increasing need for agricultural commodities and foodstuffs as well as the growing prevalence of extreme weather events are generating stronger demand for reinsurance covers, particularly in emerging and developing markets. At Hannover Re we engage both in traditional reinsurance and in intensified cooperation with our customers and partners on the development of new original insurance tools. In this regard, we see further growth potential for index-linked products as part of direct and indirect insurance concepts in emerging and developing economies. The more widespread implementation of public-private partnerships offers us new opportunities to write profitable business in markets that have still to establish themselves.

In our **retakaful business** we anticipate a predominantly soft rate level on account of the competition-induced excess supply of capacity as well as a comparatively low oil price. Risk selection and good customer relations will therefore play a pivotal role in our underwriting of profitable business. Our focus in 2018 will be on our specialty lines. We are also planning a cautious entry into proportional motor business so as to participate in the available rate increases here. Prices for catastrophe XL business have risen owing to the numerous large losses in 2017. All in all, we expect the premium volume to remain stable.

In **natural catastrophe (Cat XL) business** we expect to see a continued inflow of cash from the capital markets in the current year as well as capacity growth at traditional insurers. Larger companies will continue to buy worldwide covers, hence reducing the number of reinsurers for such programmes. A further increase in the pressure for mergers & acquisitions is also anticipated. All in all, we do not anticipate a significant increase in demand for natural catastrophe covers. It is only because of the considerable losses caused by the forest fires in California that some primary insurers in this market are likely to buy additional covers. Rate increases were pushed through across a broad front on the back of the significant natural catastrophe losses. Programmes in the United States that been spared losses saw limited increases in the single-digit percentage range; in other countries the rate increases were in the order of 5%. Rate improvements of 20% to 40%, in some cases even higher, were achieved under loss-impacted programmes.

Owing to the implementation of risk-based models for calculating solvency requirements not only within but also outside the European Union, the surge in demand for **structured reinsurance** products is likely to remain undiminished. The key driver here continues to be the growing integration of reinsurance into insurers' risk management as a means of offsetting the increasingly exacting capital requirements placed upon them. In addition, the increasing pressure on the profit margins of our customers around the world is creating a greater need for tailor-made reinsurance solutions that can optimise the cost of capital. For the current year we are expecting further significant growth in the premium volume.

In the area of **insurance-linked securities (ILS)** we expect to see continued growth in demand. Investors are seeking a negative or minimal correlation with other financial investments and hence the diversification that this brings. We are responding to this market situation with a strong emphasis on service, offering individually tailored products – from collateralised reinsurance to catastrophe bonds – for property and life reinsurance risks. Over the coming years we expect our ILS activities to deliver a positive and consistently rising profit contribution. The capital market remains an important factor in the protection covers taken out by our company.

Life & Health reinsurance

In life and health reinsurance we see ourselves as more than a pure risk carrier. In our role as an expert partner, we draw on our worldwide know-how to give our customers comprehensive support. We attach just as much importance to the advantages of already being closely integrated into the business process in advance so as to jointly identify the exact reinsurance requirement as we do to staying involved throughout the process and keeping track of the business experience. Due to the very long-term relationships that this business routinely entails, there is a mutual interest in the reinsurance coverage generating sustainable value for all parties concerned.

Life & Health reinsurance: Forecast development for 2018 M 95

	Volume [1]	Profitability [2]
Financial Solutions	→	++
Risk Solutions		
Longevity	→	+/–
Mortality	→	–
Morbidity	↗	+/–

1 In EUR, development in original currencies can be different
2 ++ = significantly above the cost of capital
\+ = above the cost of capital
+/– = on a par with the cost of capital
– = below the cost of capital

For the German (re)insurance market it is our expectation that in the coming reporting period the interest rate level will remain unchanged on the present low level, thereby further adding to the strain associated with the additional interest rate reserves that have to be constituted by German life insurers. However, policymakers are expected to take appropriate supportive actions in relation to the additional interest rate reserves as part of the revisions to the Life Insurance Reform Act. The concrete implications for the industry remain to be seen.

Owing to the pressure of consolidation in the German life insurance market, it remains likely that several primary insurers will firm up their plans to sell parts of their books of life insurance that are closed for new business. We are confident of our ability to assist companies in this situation. Along with this challenge, German life insurers are under considerable pressure to safeguard the future viability of the industry with innovative new product concepts. Particularly in the increasingly relevant area of insurance products for seniors, we operate directly at our customers' side in order to develop and implement concrete solutions.

Furthermore, we see the potential to instil fresh momentum in our customers with our automated underwriting systems. Demand for such automated solutions is especially brisk in France. Upcoming supervisory changes could generate business potential here in connection with hr | ReFlex. In Russia, too, regulatory reform will influence business going forward: the establishment of a new state reinsurer and the associated requirement to cede 10% of all transactions to it will trigger movement in the market. The mandatory cession applies to all business and is applicable effective 1 January 2018 – as well as retroactively from 1 January 2017.

Broadly speaking, it is our assumption that the need and demand for both solvency and capital relief will generally increase in European markets. The requirements that have to be met for individual risks – which in some instances are very high – are at times putting primary insurers under heavy pressure. In the area of financial solutions we similarly see thoroughly positive growth opportunities in Australia and the United States.

The tax reform package adopted in the United States shortly before the end of 2017 will also have implications for our life reinsurance business there. Thanks to our robust Group structure, we will nevertheless be able to continue operating as one of the leading providers in the world's largest life reinsurance market. We stand ready to support our clients with our customary expertise and service.

With regard to the book of US mortality business assumed in 2009, we anticipate further strains in the current year on account of higher-than-expected mortality rates.

In Latin America we anticipate positive growth stimuli, just as we do in Asia, Africa and the Middle East. Most notably, we take an optimistic view of the future development of business in conjunction with wellness-oriented insurance concepts that not only provide policyholders with pure risk coverage but also motivate them through an individually tailored bonus system to stay active and eat a healthy diet.

Furthermore, it is our expectation that the international longevity market will continue to develop favourably and that our customers will increasingly show concrete interest in relevant reinsurance solutions.

Investments

Geopolitical developments harbour growing uncertainties and the behaviour of capital market players can to some extent scarcely be explained by fundamentals. With this in mind, we shall continue to invest substantial parts of our investment portfolio conservatively. Nevertheless, irrespective of the sovereign debt issue, the brighter economic outlook will also be reflected in appropriate risk-taking. Our emphasis on broad diversification will remain in place. By maintaining the most neutral possible modified duration we shall ensure that the interest rate risk is tightly managed.

The enlargement of the asset portfolio should have a positive effect on investment income. Despite the persistently low level of interest rates, we expect to maintain a stable average return on our investments. The interest rate increases observed in the course of the year under review in our main currency areas could provide a valuable boost in this respect. In view of the low returns on more secure investments, we shall continue to invest in products offering attractive credit spreads and selectively expand our holdings in the areas of alternative investments, real estate and emerging markets. We intend to significantly slow or even wind up the moves made over the past two years to expand the portfolio of lower-rated fixed-income securities while at the same time increasing the proportion of government bonds in order to safeguard the return while maintaining the overall level of risk virtually unchanged.

If we see corrections to the current valuation levels of listed equities we are ready to enter the market on a moderate scale.

In our assessment, the Brexit issue is an indirect source of uncertainty affecting capital markets, but not a direct factor influencing our asset management activities because we assume that markets have already priced in the uncertainty surrounding the withdrawal process.

Outlook for the full 2018 financial year

In the current financial year we anticipate a very good overall result for the Hannover Re Group. Bearing in mind the developments in property and casualty as well as life and health reinsurance, we are looking to book single-digit percentage growth in gross premium – based on constant exchange rates.

In property and casualty reinsurance we expect a good increase in premium volume in light of the outcome of the treaty renewals as at 1 January 2018. The principal driver here is higher premium income in Asia and Australia, Western and Eastern Europe as well as North America, coupled with strong demand in structured reinsurance business. We shall nevertheless stand by our selective underwriting policy, under which in large part we write only business that satisfies our margin requirements. Looking ahead to the subsequent rounds of renewals during the year, the situation is expected to be similar to the one at the start of the year. Thanks to our good ratings, long-standing stable customer relationships and low expense ratio, a solid outcome should be attainable. We anticipate a good underwriting result, provided the burden of large losses is within our expectations. In terms of our targeted combined ratio, we continue to aim for a figure under 96%. The EBIT margin for property and casualty reinsurance should amount to at least 10%.

In the context of our Group strategy cycle we partially modified the key performance indicators for our worldwide life and health reinsurance. This is especially true of the growth target for gross premium, with average organic growth now expected to come in between 3% and 5% from 2018 onwards (at constant exchange rates; over a 3-year period, aligned with the 3-year Group strategy cycle). Going forward, we shall dispense with target EBIT margins for each reporting category. Instead, the new target that we have set ourselves is EBIT growth of more than 5% on average over a 3-year period. The targeted level for the Value of New Business remains unchanged at a minimum of EUR 220 million per year.

With regard to the IVC targets that we use to map economic value creation, we anticipate a minimum 2% xRoCA both for property and casualty reinsurance and for life and health reinsurance.

In view of the expected positive cash flow that we generate from the technical account and our investments, and assuming roughly stable exchange rates and interest rate levels, our asset portfolios should continue to grow. We are looking to deliver a return on investment of 2.7%.

For 2018 we anticipate Group net income of more than EUR 1 billion. This is subject to the proviso that large loss expenditure does not significantly exceed the budgeted level of EUR 825 million and that there are no unforeseen distortions on capital markets.

Events after the reporting date

Matters of special significance occurring after the closing date for the consolidated financial statements are described in section 8.10 of the notes "Events after the balance sheet date" on page 248.

Consolidated financial statements

Consolidated balance sheet as at 31 December 2017

N 01

Assets in EUR thousand	Notes	31.12.2017	31.12.2016[1]
Fixed-income securities – held to maturity	6.1	336,182	484,955
Fixed-income securities – loans and receivables	6.1	2,455,164	2,563,594
Fixed-income securities – available for sale	6.1	31,281,908	32,182,173
Fixed-income securities – at fair value through profit or loss	6.1	212,042	239,917
Equity securities – available for sale	6.1	37,520	905,307
Other financial assets – at fair value through profit or loss	6.1	88,832	57,665
Real estate and real estate funds	6.1	1,968,702	1,792,919
Investments in associated companies	6.1	121,075	114,633
Other invested assets	6.1	1,761,678	1,764,678
Short-term investments	6.1	958,669	838,987
Cash and cash equivalents	6.1	835,706	848,667
Total investments and cash under own management		**40,057,478**	**41,793,495**
Funds withheld	6.2	10,735,012	11,673,259
Contract deposits	6.3	167,854	170,505
Total investments		**50,960,344**	**53,637,259**
Reinsurance recoverables on unpaid claims	6.7	1,651,335	1,506,292
Reinsurance recoverables on benefit reserve	6.7	959,533	1,189,420
Prepaid reinsurance premium	6.7	96,402	134,927
Reinsurance recoverables on other technical reserves	6.7	7,301	12,231
Deferred acquisition costs	6.4	2,228,246	2,264,034
Accounts receivable	6.4	3,821,124	3,678,030
Goodwill	6.5	91,692	64,609
Deferred tax assets	7.5	466,564	408,292
Other assets	6.6	904,253	674,389
Accrued interest and rent		10,052	9,978
Assets held for sale		–	15,086
Total assets		**61,196,846**	**63,594,547**

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

Liabilities in EUR thousand	Notes	31.12.2017	31.12.2016[1]
Loss and loss adjustment expense reserve	6.7	28,378,545	28,129,418
Benefit reserve	6.7	8,977,946	10,313,952
Unearned premium reserve	6.7	3,541,194	3,382,498
Other technical provisions	6.7	394,460	362,390
Funds withheld	6.8	974,786	1,234,073
Contract deposits	6.9	3,949,207	4,298,343
Reinsurance payable		980,241	1,216,036
Provisions for pensions	6.10	177,786	180,680
Taxes	7.5	319,845	409,023
Deferred tax liabilities	7.5	1,819,867	1,842,973
Other liabilities	6.11	654,338	680,396
Long-term debt and subordinated capital	6.12	1,742,073	1,804,218
Total liabilities		**51,910,288**	**53,854,000**
Shareholders' equity			
Common shares	6.13	120,597	120,597
Nominal value: 120,597 Conditional capital: 60,299	6.13		
Additional paid-in capital		724,562	724,562
Common shares and additional paid-in capital		**845,159**	**845,159**
Cumulative other comprehensive income			
Unrealised gains and losses on investments		818,350	904,196
Cumulative foreign currency translation adjustment		(62,548)	680,082
Changes from hedging instruments		(6,292)	(6,703)
Other changes in cumulative other comprehensive income		(50,598)	(53,778)
Total other comprehensive income		**698,912**	**1,523,797**
Retained earnings		6,984,407	6,628,274
Equity attributable to shareholders of Hannover Rück SE		**8,528,478**	**8,997,230**
Non-controlling interests	6.14	758,080	743,317
Total shareholders' equity		**9,286,558**	**9,740,547**
Total liabilities		**61,196,846**	**63,594,547**

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

Consolidated statement of income 2017

N 02

in EUR thousand	Notes	1.1.–31.12.2017	1.1.–31.12.2016[1]
Gross written premium	7.1	17,790,506	16,353,622
Ceded written premium		1,696,082	1,749,624
Change in gross unearned premium		(437,768)	(163,914)
Change in ceded unearned premium		(24,986)	(29,808)
Net premium earned		**15,631,670**	**14,410,276**
Ordinary investment income	7.2	1,289,033	1,161,976
Profit/loss from investments in associated companies	7.2	16,006	9,101
Realised gains and losses on investments	7.2	377,093	206,296
Change in fair value of financial instruments	7.2	38,569	26,066
Total depreciation, impairments and appreciation of investments	7.2	70,949	76,028
Other investment expenses	7.2	110,778	109,140
Net income from investments under own management		**1,538,974**	**1,218,271**
Income/expense on funds withheld and contract deposits	7.2	234,915	332,149
Net investment income		**1,773,889**	**1,550,420**
Other technical income	7.3	822	470
Total revenues		**17,406,381**	**15,961,166**
Claims and claims expenses	7.3	12,193,079	10,811,325
Change in benefit reserves	7.3	(571)	83,010
Commission and brokerage, change in deferred acquisition costs	7.3	3,499,270	2,978,642
Other acquisition costs		14,141	16,292
Other technical expenses	7.3	3,781	3,997
Administrative expenses	7.3	411,297	401,545
Total technical expenses		**16,120,997**	**14,294,811**
Other income and expenses	7.4	78,971	22,993
Operating profit/loss (EBIT)		**1,364,355**	**1,689,348**
Interest on hybrid capital	6.12	71,736	71,693
Net income before taxes		**1,292,619**	**1,617,655**
Taxes	7.5	248,042	391,229
Net income		**1,044,577**	**1,226,426**
thereof			
Non-controlling interest in profit and loss	6.14	86,022	55,197
Group net income		**958,555**	**1,171,229**
Earnings per share (in EUR)	**8.5**		
Basic earnings per share		7.95	9.71
Diluted earnings per share		7.95	9.71

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

Consolidated statement of comprehensive income 2017

N 03

in EUR thousand	1.1.–31.12.2017	1.1.–31.12.2016
Net income	**1,044,577**	**1,226,426**
Not reclassifiable to the consolidated statement of income		
Actuarial gains and losses		
Gains (losses) recognised directly in equity	4,969	(27,889)
Tax income (expense)	(1,594)	9,101
	3,375	**(18,788)**
Income and expense recognised directly in equity that cannot be reclassified		
Gains (losses) recognised directly in equity	4,969	(27,889)
Tax income (expense)	(1,594)	9,101
	3,375	**(18,788)**
Reclassifiable to the consolidated statement of income		
Unrealised gains and losses on investments		
Gains (losses) recognised directly in equity	246,129	382,225
Transferred to the consolidated statement of income	(362,273)	(163,222)
Tax income (expense)	13,060	741
	(103,084)	**219,744**
Currency translation		
Gains (losses) recognised directly in equity	(802,819)	179,194
Tax income (expense)	49,843	(5,365)
	(752,976)	**173,829**
Changes from the measurement of associated companies		
Gains (losses) recognised directly in equity	(936)	(7,836)
Transferred to the consolidated statement of income	–	(1,251)
	(936)	**(9,087)**
Changes from hedging instruments		
Gains (losses) recognised directly in equity	(79)	(5,825)
Tax income (expense)	476	295
	397	**(5,530)**
Reclassifiable income and expense recognised directly in equity		
Gains (losses) recognised directly in equity	(557,705)	547,758
Transferred to the consolidated statement of income	(362,273)	(164,473)
Tax income (expense)	63,379	(4,329)
	(856,599)	**378,956**
Total income and expense recognised directly in equity		
Gains (losses) recognised directly in equity	(552,736)	519,869
Transferred to the consolidated statement of income	(362,273)	(164,473)
Tax income (expense)	61,785	4,772
	(853,224)	**360,168**
Total recognised income and expense	**191,353**	**1,586,594**
thereof		
Attributable to non-controlling interests	57,683	75,079
Attributable to shareholders of Hannover Rück SE	133,670	1,511,515

Consolidated statement of changes in shareholders' equity 2017

N04

in EUR thousand	Common shares	Additional paid-in capital	Other reserves (cumulative other comprehensive income)	
			Unrealised gains/losses	Currency translation
Balance as at 1.1.2016	**120,597**	**724,562**	**712,001**	**509,189**
Changes in ownership interest with no change of control status	–	–	–	109
Capital increases/additions	–	–	–	–
Capital repayments	–	–	–	–
Acquisition/disposal of treasury shares	–	–	–	–
Total income and expense recognised directly in equity	–	–	192,195	170,784
Net income	–	–	–	–
Dividends paid	–	–	–	–
Balance as at 31.12.2016	**120,597**	**724,562**	**904,196**	**680,082**
Balance as at 1.1.2017	**120,597**	**724,562**	**904,196**	**680,082**
Changes in ownership interest with no change of control status	–	–	–	–
Changes in the consolidated group	–	–	–	–
Capital increases/additions	–	–	–	–
Capital repayments	–	–	–	–
Acquisition/disposal of treasury shares	–	–	–	–
Total income and expense recognised in equity	–	–	(85,846)	(742,630)
Net income	–	–	–	–
Dividends paid	–	–	–	–
Balance as at 31.12.2017	**120,597**	**724,562**	**818,350**	**(62,548)**

Continuation: Other reserves (cumulative other comprehensive income)		Retained earnings	Equity attributable to shareholders of Hannover Rück SE	Non-controlling interests	Total shareholders' equity
Hedging instruments	Other				
(1,217)	**(36,571)**	**6,039,783**	**8,068,344**	**709,126**	**8,777,470**
–	–	(9,889)	(9,780)	(980)	(10,760)
–	–	–	–	210	210
–	–	–	–	(1)	(1)
–	–	(13)	(13)	–	(13)
(5,486)	(17,207)	–	340,286	19,882	360,168
–	–	1,171,229	1,171,229	55,197	1,226,426
–	–	(572,836)	(572,836)	(40,117)	(612,953)
(6,703)	**(53,778)**	**6,628,274**	**8,997,230**	**743,317**	**9,740,547**
(6,703)	**(53,778)**	**6,628,274**	**8,997,230**	**743,317**	**9,740,547**
–	–	618	618	160	778
–	–	–	–	461	461
–	–	–	–	559	559
–	–	–	–	(19)	(19)
–	–	(54)	(54)	–	(54)
411	3,180	–	(824,885)	(28,339)	(853,224)
–	–	958,555	958,555	86,022	1,044,577
–	–	(602,986)	(602,986)	(44,081)	(647,067)
(6,292)	**(50,598)**	**6,984,407**	**8,528,478**	**758,080**	**9,286,558**

Consolidated cash flow statement 2017

N 05

in EUR thousand	1.1.–31.12.2017	1.1.–31.12.2016[1]
I. Cash flow from operating activities		
Net income	1,044,577	1,226,426
Appreciation/depreciation	113,569	105,358
Net realised gains and losses on investments	(377,093)	(206,296)
Change in fair value of financial instruments (through profit or loss)	(38,569)	(26,066)
Realised gains and losses on deconsolidation	(191)	(1,995)
Income from the recognition of negative goodwill	–	(10,543)
Amortisation of investments	57,735	74,224
Changes in funds withheld	54,510	1,592,162
Net changes in contract deposits	(25,992)	(404,033)
Changes in prepaid reinsurance premium (net)	462,495	189,724
Changes in tax assets/provisions for taxes	(105,658)	88,078
Changes in benefit reserve (net)	(545,687)	(1,118,242)
Changes in claims reserves (net)	1,871,147	1,123,269
Changes in deferred acquisition costs	(129,259)	(98,986)
Changes in other technical provisions	57,219	20,254
Changes in clearing balances	(581,817)	(161,164)
Changes in other assets and liabilities (net)	(163,133)	(60,887)
Cash flow from operating activities	**1,693,853**	**2,331,283**

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

in EUR thousand	1.1.–31.12.2017	1.1.–31.12.2016
II. Cash flow from investing activities		
Fixed-income securities – held to maturity		
Maturities	135,297	504,293
Fixed-income securities – loans and receivables		
Maturities, sales	229,949	533,319
Purchases	(181,016)	(224,906)
Fixed-income securities – available for sale		
Maturities, sales	10,061,559	10,744,087
Purchases	(11,384,950)	(12,721,891)
Fixed-income securities – at fair value through profit or loss		
Maturities, sales	6,569	53,995
Purchases	–	(185,375)
Equity securities – available for sale		
Sales	975,776	132,636
Purchases	(35,373)	(504,713)
Other financial assets – at fair value through profit or loss		
Sales	42,674	30,025
Purchases	(90,223)	(16,064)
Other invested assets		
Sales	247,258	260,882
Purchases	(327,224)	(385,936)
Affiliated companies and participating interests		
Sales	3,873	41,068
Purchases	(118,912)	(76,217)
Real estate and real estate funds		
Sales	167,121	79,428
Purchases	(481,126)	(204,044)
Short-term investments		
Changes	(180,377)	255,823
Other changes (net)	(13,125)	(27,960)
Cash flow from investing activities	**(942,250)**	**(1,711,550)**

in EUR thousand	1.1.–31.12.2017	1.1.–31.12.2016
III. Cash flow from financing activities		
Contribution from capital measures	559	7,762
Payment on capital measures	(4,508)	(20,048)
Structural change without loss of control	778	141
Dividends paid	(647,067)	(612,953)
Proceeds from long-term debts	57,734	226
Repayment of long-term debts	(97,486)	(2,028)
Other changes (net)	(54)	(13)
Cash flow from financing activities	**(690,044)**	**(626,913)**
IV. Exchange rate differences on cash	**(74,520)**	**34,852**
Cash and cash equivalents at the beginning of the period	**848,667**	**820,995**
Change in cash and cash equivalents (I.+II.+III.+IV.)	**(12,961)**	**27,672**
Cash and cash equivalents at the end of the period	**835,706**	**848,667**
Supplementary information on the cash flow statement[1]		
Income taxes paid (on balance)	(387,247)	(271,440)
Dividend receipts[2]	268,916	151,914
Interest received	1,454,903	1,543,699
Interest paid	(272,831)	(253,533)

[1] The income taxes paid, dividend receipts as well as interest received and paid are included entirely in the cash flow from operating activities.
[2] Including dividend-like profit participations from investment funds

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 N08

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 N 09

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 Figures in EUR thousand	Gross written premium[1] 2017	Gross written premium[1] 2016	Net income[1] 2017	Net income[1] 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	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

	2017		2016	
in EUR thousand	Amortised cost[1]	Fair value	Amortised cost[1]	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

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 N 21

in EUR thousand	2017				
	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 N 22

in EUR thousand	2016				
	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 N23

	2017				
in EUR thousand	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	2017	2016	2017	2016	2017	2016
	Fair value before accrued interest		Accrued interest		Fair value	
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 N26

	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 N30

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

N 34

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

N 35

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

	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
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

	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
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**

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
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**

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
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 N 51

	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 N 52

	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 N 59

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 N62

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 N63

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 N64

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 N71

in TEUR	2017	2016
	E+S Rückversicherung AG, Hannover, Germany	
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 N 84

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 N 85

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 EUR thousand	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

	2017		2016	
in EUR thousand	KPMG worldwide	thereof KPMG AG	KPMG worldwide	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

Supervisory Board

Report of the Supervisory Board

of Hannover Rück SE

In our function as the Supervisory Board we considered at length during the 2017 financial year the position and development of the company and its major subsidiaries. We advised the Executive Board on the direction of the company and monitored the management of business on the basis of written and verbal reports from the Executive Board. The Supervisory Board of Hannover Rück SE held four regular meetings in order to adopt the necessary resolutions after appropriate discussion. With the exception of one meeting that one member of the Supervisory Board did not attend, all nine Supervisory Board members took part in each of the Supervisory Board meetings held in 2017. Two representatives of the Federal Financial Supervisory Authority participated in one meeting on a routine basis. In addition, we were informed by the Executive Board in writing on the basis of the quarterly statements and orally about the course of business and the position of the company and the Group. The quarterly reports with the components of the financial statements and key figures for the Hannover Re Group constituted an important source of information for the Supervisory Board. We received an analysis of the 2016 results in property & casualty and life & health reinsurance as well as a presentation from the Executive Board covering the profit expectations for the 2017 financial year and the operational planning for the 2018 financial year. In addition, the Chairman of the Supervisory Board was constantly advised by the Chairman of the Executive Board of major developments and impending decisions as well as of the risk situation within the company and the Group. All in all, we were involved in decisions taken by the Executive Board and assured ourselves of the lawfulness, regularity and efficiency of the company's management as required by our statutory responsibilities and those placed upon us by the company's Articles of Association.

No audit measures pursuant to § 111 Para. 2 Sentence 1 Stock Corporation Act (AktG) were required in the 2017 financial year.

Key points of deliberation

As in every year, we were regularly updated on the work of the Supervisory Board committees and given a description of the major pending legal proceedings. A further key point of deliberation was the examination of the various reports in accordance with Solvency II such as the Own Risk and Solvency Assessment (ORSA), the regulatory reporting and especially the capitalisation under Solvency II. In the context of the annual review of the Investment Guidelines, these were expanded to include, inter alia, infrastructure investments (debt and equity) on the assumption that the underlying "New Product Process" is approved by the Executive Board. A peer comparison report on the return on investment was also received. Extensive consideration was given to the EU audit reform and the review of the transition phase between auditors. The approval of the revised strategy of the Hannover Re Group was another major area of the Supervisory Board's work. In addition, the Supervisory Board decided on the specialist and personal requirements for the Executive Board and Supervisory Board and compared them with the self-assessment of the Supervisory Board's expertise that had been carried out. The Supervisory Board also examined the need for further training both for the Supervisory Board as a whole and for individual members of the Supervisory Board. As in every year, the full Supervisory Board considered the adequacy of the remuneration system for the members of the Executive Board. The variable remuneration of the members of the Executive Board was defined on the basis of the findings with respect to attainment of the respective targets for the 2016 financial year.

Committees of the Supervisory Board

Of the committees formed by the Supervisory Board within the meaning of § 107 Para. 3 Stock Corporation Act (AktG), the Finance and Audit Committee met on four occasions, the Standing Committee met twice and the Nomination Committee met twice. The Chairman of the Supervisory Board updated the full Supervisory Board on the major deliberations of the committee meetings at its next meeting and provided an opportunity for further questions.

The Finance and Audit Committee considered inter alia the consolidated financial statement and the quarterly reports drawn up in accordance with IFRS and the individual financial statement of Hannover Rück SE drawn up in accordance with the German Commercial Code (HGB) and discussed with the independent auditors their reports on these financial statements. As in the previous year, an expert opinion on the adequacy of the loss reserves in property and casualty reinsurance was noted, the retrocession structure of the Hannover Re Group and the accumulated prefinancing volume in life reinsurance including a comparison of the expected return flows with the repayments actually made, the risk reports, the compliance report and the report on adherence to Corporate Governance principles were discussed and reports on the major subsidiaries were received and considered. In addition, the Committee examined the investment structure and investment income – including the stress tests with regard to the investments and their implications for net income and the equity base – and defined the audit concentrations for the 2017 financial year. The Committee was provided with detailed reports on the recognition and measurement of the risk-oriented book of US life reinsurance business acquired in 2009 from Scottish Re. The Committee also considered various M&A projects. Furthermore, the Committee prepared various resolutions to be adopted by the Supervisory Board, including a resolution on the next steps to be taken in connection with the EU audit reform.

Consideration of the EU audit reform was a major point of emphasis in the work of the Finance and Audit Committee. In this connection the Finance and Audit Committee validated the report on the conclusions drawn by the company in the selection process for choosing a new auditing firm and made an appropriate recommendation regarding the future auditing firm. Furthermore, a primary concern was the review of the transition phase between the existing and future auditing firm. The Finance and Audit Committee subsequently assured itself – including through direct dialogue with the auditors in the context of a meeting – that the change of auditing firm will take place in an orderly fashion. It is envisaged that the new auditing firm will audit the individual and consolidated financial statements of the company for the 2018 financial year.

The Standing Committee dealt among other things with the adequacy of the system of remuneration for the members of the Executive Board, the determination of the variable remuneration of the members of the Executive Board for the 2016 financial year on the basis of the findings with respect to attainment of their respective targets and the examination of the remuneration for the Board members who were due for review. In all these matters the Committee drew up corresponding recommendations for the full Supervisory Board. The Committee deliberated at length on the medium- and long-time succession arrangements for the Executive Board and recommended to the full Supervisory Board the reappointment of Dr. Michael Pickel and Dr. Klaus Miller.

The Nomination Committee began its deliberations over suitable candidates for the upcoming by-election of two shareholder representatives to the Supervisory Board in the coming year. When recommending candidates for nomination, the Committee takes into account the legal and supervisory stipulations, the goals set by the Supervisory Board itself for the composition of the body as well as the guidelines regarding the specialist and personal requirements for the members of the Supervisory Board, which the latter had approved in updated form in the year under review.

Corporate Governance

The Government Commission on the German Corporate Governance Code (DCKG) made changes to the German Corporate Governance Code in 2017. The Supervisory Board consequently examined the revised version of the German Corporate Governance Code as amended 7 February 2017 and in this connection approved corresponding changes to the Corporate Governance Principles of Hannover Rück SE. Among other things, a reference was inserted to the regularly performed efficiency review of the Supervisory Board's work. In addition, the Supervisory Board implemented various requirements arising out of Section 5.4.1 of the Code regarding the composition of the Supervisory Board and approved a diversity concept. It was possible to omit the reporting on shareholdings of members of the Executive Board and Supervisory Board from the Corporate Governance Principles because legal standards now exist for reporting on the shareholdings of members of these bodies.

We considered the report by the Executive Board on non-financial matters (cf. page 64 et seq. of the combined management report) and examined it with the support of a knowledgeable external consultant with an eye to lawfulness, regularity and expediency.

In addition, the Supervisory Board received a report on the design of the remuneration schemes as well as the compliance, internal audit and risk reports.

Notwithstanding the high importance that the Supervisory Board attaches to the standards of good and responsible enterprise management defined in the German Corporate Governance Code, the Supervisory Board decided not to comply with the recommendations contained in Code Section 4.2.3 Para. 2 regarding caps on the amount of variable compensation elements in management board contracts, in Code Section 4.2.3 Para. 4 concerning a cap on severance payments in management board contracts, in Code Section 5.3.2 Para. 3 Sentence 3 concerning the Chair of the Audit Committee and in Code Section 5.3.2 Para. 3 Sentence 2 concerning the independence of the Chair of the Audit Committee. Justification for these divergences is provided in the Declaration of Conformity pursuant to § 161 Stock Corporation Act (AktG) regarding compliance with the German Corporate Governance Code, which is reproduced in this Annual Report as part of the Declaration on Corporate Governance. Further information on the topic of corporate governance is available on Hannover Re's website.

Audit of the annual financial statements and consolidated financial statements

The accounting, annual financial statements, consolidated financial statements and the combined management report were audited by KPMG AG Wirtschaftsprüfungsgesellschaft. The Supervisory Board chose the auditor and the Chairman of the Supervisory Board awarded the audit mandate. The auditor's independence declaration was received. Along with the audit concentrations of the German Financial Reporting Enforcement Panel (DPR), the additional audit concentrations defined by the European Securities and Markets Authority (ESMA) also formed part of the scope of the audit. The mandate for the review report by the independent auditors on the Half-yearly Financial Report as at 30 June 2017 was also awarded again. The special challenges associated with the international aspects of the audits were met without reservation. Since the audits did not give rise to any objections KPMG AG Wirtschaftsprüfungsgesellschaft issued unqualified audit certificates. The Finance and Audit Committee discussed the annual financial statements and the combined management report with the participation of the auditors and in light of the audit reports, and it informed the Supervisory Board of the outcome of its examination. The audit reports were distributed to all members of the Supervisory Board and scrutinised in detail – with the participation of the auditors – at the Supervisory Board meeting held to consider the annual results. The auditors will also be present at the Annual General Meeting.

The report on the company's relations with affiliated companies drawn up by the Executive Board has likewise been examined by KPMG AG Wirtschaftsprüfungsgesellschaft and given the following unqualified audit certificate:

"Having audited the report in accordance with our professional duties, we confirm that

1. its factual details are correct;
2. in the case of the transactions detailed in the report, the expenditure of the company was not unreasonably high."

We have examined

a) the annual financial statements of the company, the financial statements of the Hannover Re Group and the combined management report prepared by the Executive Board for the company and the Group, and
b) the report of the Executive Board pursuant to § 312 Stock Corporation Act (AktG) (Report on relations with affiliated companies)

– in each case drawn up as at 31 December 2017 – and have no objections. Nor do we have any objections to the statement reproduced in the dependent company report.

The Supervisory Board thus concurred with the opinions of the auditors and approved the annual financial statements and the consolidated financial statements; the annual financial statements are thereby adopted. Our proposal regarding the appropriation of the disposable profit for 2017 is in accordance with that of the Executive Board.

Changes on the Supervisory Board and the Executive Board

The composition of the Supervisory Board and its committees as well as of the Executive Board did not change in the year under review. Dr. Michael Pickel and Mr. Klaus Miller were reappointed as members of the Executive Board.

Word of thanks to the Executive Board and members of staff

The good result generated by Hannover Rück SE for the 2017 financial year was made possible by the exceptional performance of the Executive Board and the members of staff working for the company and the Group. The Supervisory Board would like to express its recognition and special appreciation to the Executive Board and all the employees for their efforts.

Hannover, 8 March 2018

For the Supervisory Board

Herbert K. Haas
Chairman

Supervisory Board of Hannover Rück SE

Herbert K. Haas [1, 2, 4]
Burgwedel
Chairman
Chairman of the Board of Management of Talanx AG
Chairman of the Board of Management of HDI Haftpflichtverband der Deutschen Industrie V.a.G.

Dr. Klaus Sturany [1]
Ascona, Switzerland
Deputy Chairman
Former member of the Executive Board of RWE AG

Wolf-Dieter Baumgartl [1, 2, 4]
Berg
Former Chief Executive Officer of Talanx AG and HDI Haftpflichtverband der Deutschen Industrie V.a.G.

Frauke Heitmüller [5]
Hannover
Employee

Otto Müller [5]
Hannover
Employee

Dr. Andrea Pollak [4]
Vienna, Austria
Independent management consultant

Dr. Immo Querner
Celle
Member of the Board of Management of Talanx AG
Member of the Board of Management of HDI Haftpflichtverband der Deutschen Industrie V.a.G.

Dr. Erhard Schipporeit [2, 3]
Hannover
Member of various supervisory boards

Maike Sielaff [5]
Burgwedel
Employee

1 Member of the Standing Committee
2 Member of the Finance and Audit Committee
3 Independent financial expert on the Finance and Audit Committee
4 Member of the Nomination Committee
5 Staff representative

Details of memberships of legally required supervisory boards and comparable control boards at other domestic and foreign business enterprises are contained in the individual report of Hannover Rück SE.

Further information

Branch offices and subsidiaries of the Hannover Re Group abroad

Australia

Hannover Life Re of Australasia Ltd
Tower 1, Level 33
100 Barangaroo Avenue
Sydney NSW 2000
Tel. +61 2 9251-6911
Fax +61 2 9251-6862
Managing Director & CEO:
Gerd Obertopp

Hannover Rueck SE Australian Branch
Tower 1, Level 33
100 Barangaroo Avenue
Sydney NSW 2000
Tel. +61 2 9274-3000
Fax +61 2 9274-3033
General Manager – Property & Casualty:
Michael Eberhardt
Agent:
Ross Littlewood

International Insurance Company of Hannover SE (Australian Branch) – Underwriting Office
Tower 1, Level 33
100 Barangaroo Avenue
Sydney NSW 2000
Tel. +61 2 8373-7580
Fax +61 2 9274-3033
Head of Branch:
Mark Fleiser

Bahrain

Hannover ReTakaful B.S.C. (c)
Al Zamil Tower
17th Floor
Government Avenue
Manama Center 305
Manama
Tel. +973 1721-4766
Fax +973 1721-4667
Managing Director:
Mahomed Akoob

Hannover Rueck SE Bahrain Branch
Al Zamil Tower
17th Floor
Government Avenue
Manama Center 305
Manama
Tel. +973 1721-4766
Fax +973 1721-4667
General Manager:
Mahomed Akoob

Bermuda

Hannover Life Reassurance Bermuda Ltd.
Victoria Place, 2nd Floor,
31 Victoria Street
Hamilton, HM 10
P.O. Box 2373
Hamilton, HM JX
Tel. +1 441 295-2827
Fax +1 441 295-2844
Managing Director:
Chantal Cardinez

Hannover Re (Bermuda) Ltd.
Victoria Place, 2nd Floor,
31 Victoria Street
Hamilton, HM 10
Tel. +1 441 294-3110
Fax +1 441 296-7568
President & CEO:
Dr. Konrad Rentrup

Brazil

Hannover Rück SE Escritório de Representação no Brasil Ltda.
Praça Floriano, 19 salas 1701/02
CEP 20 031 050
Rio de Janeiro
Tel. +55 21 2217-9500
Fax +55 21 2217-9515
Representative:
Joao Caproni

Canada

Hannover Re (Ireland) DAC Canadian Life Branch
220 Bay Street, Suite 400
Toronto, Ontario M5J 2W4
Tel. +1 416 607-7824
Fax +1 416 867-9728
General Manager:
Amhlaoibh Lynch

Hannover Rück SE Canadian Branch
220 Bay Street, Suite 400
Toronto, Ontario M5J 2W4
Tel. +1 416 867-9712
Fax +1 416 867-9728
General Manager:
Laurel E. Grant

International Insurance Company of Hannover SE (Canadian Branch)
220 Bay Street, Suite 400
Toronto, Ontario M5J 2W4
Tel. +1 416 867-9712
Fax +1 416 867-9728
Head of Canadian Branch:
Derek Spafford

China

Hannover Rück SE Hong Kong Branch
2008 Sun Hung Kai Centre
20th Floor
30 Harbour Road
Wanchai, Hong Kong
Tel. +852 2519-3208
Fax +852 2588-1136
General Manager:
Wilbur Lo

Hannover Rück SE
Shanghai Branch
Suite 701–703, Building 1,
Lujiazui Century Financial Plaza
729 South Yanggao Road
200127 Shanghai
Tel. +86 21 2035-8999
Fax +86 21 5820-9396
General Manager:
Fook-Kong Lye

Colombia

Hannover Rück SE
Bogotá Oficina de Representación
Carrera 9 No. 77–67
Floor 5
Bogotá
Tel. +57 1 642-0066
Fax +57 1 642-0273
General Manager:
Miguel Guarin

France

Hannover Rück SE
Succursale Française
33 Avenue de Wagram
75017 Paris
Tel. Life & Health
+33 1 4561-7300
Tel. Property & Casualty
+33 1 4561-7340
Fax +33 1 4006-0225
General Manager:
Raphaël Rimelin

India

Hannover Re
Consulting Services
India Private Limited
Unit 604, 6th Floor B Wing, Fulcrum
Sahar Road
Andheri (East)
Mumbai 400 099
Tel. +91 22 6138-0808
Fax +91 22 6138-0810
General Manager:
GLN Sarma

Hannover Rück SE - India Branch
Unit 604, 6th Floor B Wing, Fulcrum
Sahar Road
Andheri (East)
Mumbai 400 099
Tel. +91 22 6138 0808
Fax +91 22 6138 0810
General Manager & CEO:
GLN Sarma

Ireland

Hannover Re (Ireland)
Designated Activity Company
No. 4 Custom House Plaza, IFSC
Dublin 1
Tel. +353 1 633-8800
Fax +353 1 633-8806
Managing Director L & H & CEO:
Debbie O'Hare
Managing Director ASI:
Kathrin Scherff

Italy

Hannover Re Services Italy S.r.l.
Via Dogana, 1
20123 Milan
Tel. +39 02 8068-1311
Fax +39 02 8068-1349
Head of Administration:
Giorgio Zandonella-Golin

Japan

Hannover Re Services Japan
Hakuyo Building, 7th Floor
3–10 Nibancho
Chiyoda-ku
Tokyo 102-0084
Tel. +81 3 5214-1101
Fax +81 3 5214-1105
General Manager:
Takayuki Ohtomo

Korea

Hannover Rück SE
Korea Branch
Room 414, 4th Floor
Gwanghwamun Officia Building
92, Saemunan-ro, Jongno-gu
Seoul 03186
Tel. +82 2 3700-0600
Fax +82 2 3700-0699
General Manager:
Frank Park

Malaysia

Hannover Rueck SE
Malaysian Branch
Suite 29-01
Integra Tower, The Intermark
348 Jalan Tun Razak
50400 Kuala Lumpur
Tel. +60 3 2687-3600
Fax +60 3 2687-3760
General Manager:
Daniel Gunawan

Mexico

Hannover Services (México)
S.A. de C.V.
German Centre
Oficina 4-4-28
Av. Santa Fé No. 170
Col. Lomas de Santa Fé
C.P. 01210 México, D.F.
Tel. +52 55 9140-0800
Fax +52 55 9140-0815
General Manager:
Guadalupe Covarrubias

South Africa

Compass Insurance Company Limited
KPMG Wanooka Place
Ground Floor
St. Andrews Road
Parktown
Johannesburg 2193
P.O. Box 37226
Birnam Park 2015
Tel. +27 11 745-8333
Fax +27 11 745-8444
www.compass.co.za
Managing Director:
Paul Carragher

Hannover Life Reassurance
Africa Limited
Rosebank Towers
Office Level 3
15 Biermann Ave
Rosebank, Johannesburg 2196
P.O. Box 85321
Emmarentia 2029
Tel. +27 11 481-6500
Fax +27 11 484-3330/32
Managing Director:
Wesley Clay

Hannover Reinsurance Africa Limited
Rosebank Towers
Office Level 3
15 Biermann Ave
Rosebank, Johannesburg 2196
P.O. Box 85321
Emmarentia 2029
Tel. +27 11 481-6500
Fax +27 11 484-3330/32
Managing Director:
Randolph Moses

Hannover Reinsurance Group Africa (Pty) Ltd.
Rosebank Towers
Office Level 3
15 Biermann Ave
Rosebank, Johannesburg 2196
P.O. Box 85321
Emmarentia 2029
Tel. +27 11 481-6500
Fax +27 11 484-3330/32
Managing Director:
Achim Klennert

Spain

HR Hannover Re, Correduría de Reaseguros, S.A.
Paseo del General Martínez
Campos 46
28010 Madrid
Tel. +34 91 319-0049
Fax +34 91 319-9378
General Manager:
Eduardo Molinari

Sweden

Hannover Rück SE, Tyskland Filial
Hantverkargatan 25
P.O. Box 22085
10422 Stockholm
Tel. +46 8 617-5400
Fax Life & Health
+46 8 617-5597
Fax Property & Casualty
+46 8 617-5593
Managing Director:
Thomas Barenthein

International Insurance Company of Hannover SE (Scandinavian Branch)
Hantverkargatan 25
P.O. Box 22085
10422 Stockholm
Tel. +46 8 617-5400
Fax +46 8 617-5590
Managing Director:
Thomas Barenthein

Taiwan

Hannover Rück SE Taipei Representative Office
Rm. 902, 9F, No. 129, Sec. 3
Minsheng E. Road
Taipei
Tel. +886 2 8770-7792
Fax +886 2 8770-7735
Representative:
Ryan Chou

United Kingdom

Argenta Holdings Limited
5th Floor
70 Gracechurch Street
London EC3V OXL
Tel. +44 0 20 7825-7200
Fax +44 0 20 7825-7212
CEO:
Andrew J. Annandale

Hannover Re UK Life Branch
10 Fenchurch Street
London EC3M 3BE
Tel. +44 20 3206-1700
Fax +44 20 3206-1701
Managing Director:
Stuart Hill

Hannover Services (UK) Limited
10 Fenchurch Street
London EC3M 3BE
Tel. +44 20 7015-4290
Fax +44 20 7015-4001
Managing Director:
Nick Parr

International Insurance Company of Hannover SE (UK Branch)
10 Fenchurch Street
London EC3M 3BE
Tel. +44 20 7015-4000
Fax +44 20 7015-4001
Managing Director:
Nick Parr

USA

Hannover Life Reassurance Company of America
200 South Orange Avenue
Suite 1900
Orlando, Florida 32801
Tel. +1 407 649-8411
Fax +1 407 649-8322
President & CEO:
Peter R. Schaefer

Office Charlotte
13840 Ballantyne Corporate Place,
Suite 400
Charlotte, North Carolina 28277
Tel. +1 704 731-6300
Fax +1 704 542-2757
President & CEO:
Peter R. Schaefer

Office Glendale
4500 Cherry Creek Drive South,
Suite 1100
Glendale, Colorado 80246
Tel. +1 303 860-6011
Fax +1 303 860-6032
President & CEO:
Peter R. Schaefer

Office New York
112 Main Street
East Rockaway, New York 11518
Tel. +1 516 593-9733
Fax +1 516 596-0303
President & CEO:
Peter R. Schaefer

Hannover Re Services USA, Inc.
500 Park Blvd., Suite 805
Itasca, Illinois 60143
Tel. +1 630 250-5517
Fax +1 630 250-5527
General Manager:
Eric Arnst

Glossary

Accumulation loss: sum of several individual losses incurred by various policyholders as a result of the same loss event (e.g. windstorm, earthquake). This may lead to a higher loss for the direct insurer or reinsurer if several affected policyholders are insured by the said company.

Acquisition cost, deferred (DAC): cost of an insurance company that arises from the acquisition or the renewal of an insurance contract (e.g. commission for the closing, costs of proposal assessment and underwriting etc.). Capitalisation results in a distribution of the cost over the duration of the contract.

Aggregate excess of loss treaty: a form of excess of loss treaty reinsurance under which the reinsurer responds when a ceding insurer incurs losses on a particular line of business during a specific period (usually twelve months) in excess of a stated amount.

Alternative risk financing: use of the capacity available on the capital markets to cover insurance risks, e.g. through the securitisation of natural catastrophe risks.

American Depositary Receipt (ADR): share certificates written by US banks on foreign shares deposited there. The ADRs are traded instead of the foreign shares. In the United States Hannover Re has enabled trading on the OTC (over-the-counter) market through an ADR Level 1 program. New capital cannot be raised and the ADR is not listed on a US exchange under a Level 1 program. The main advantage of an ADR Level 1 program compared to higher-level programs is that there is no requirement for accounting or financial reporting in accordance with US GAAP.

Benefit reserves: value arrived at using mathematical methods for future liabilities (present value of future liabilities minus present value of future incoming premiums), primarily in life and health insurance.

Block assumption transaction (BAT): proportional reinsurance treaty on a client's life or health insurance portfolio, by means of which it is possible, inter alia, for our clients to realise in advance the future profits so as to be able to efficiently ensure the attainment of corporate objectives, e.g. in the areas of financial or solvency policy.

Capital asset pricing model (CAPM): the CAPM is used to explain the materialisation of prices/returns on the capital market based on investor expectations regarding the future probability distribution of returns. Under this method, the opportunity cost rate for the shareholders' equity consists of three components – a risk-averse interest rate, a market-specific risk loading and an enterprise-specific risk assessment, the beta coefficient. The cost of shareholders' equity is therefore defined as follows: risk-averse interest rate + beta * enterprise-specific risk assessment.

Cash flow statement: statement on the origin and utilisation of cash and cash equivalents during the accounting period. It shows the changes in liquid funds separated into cash flows from operating, investing and financing activities.

Cedant: direct insurer or reinsurer which passes on (also: cedes) shares of its insured or reinsured risks to a reinsurer in exchange for premium.

Cession: transfer of a risk from the direct insurer to the reinsurer.

Claims and claims expenses: sum total of paid claims and provisions for loss events that occurred in the business year; this item also includes the result of the run-off of the provisions for loss events from previous years, in each case after the deduction of own reinsurance cessions.

Coinsurance Funds Withheld (CFW) Treaty: type of coinsurance contract where the ceding company retains a portion of the original premium at least equal to the ceded reserves. Similar to a ModCo contract the interest payment to the reinsurer reflects the investment return on an underlying asset portfolio.

Combined ratio: sum of the loss ratio and expense ratio.

Confidence (also: probability) level: the confidence level defines the probability with which the defined amount of risk will not be exceeded.

Contribution margin accounting level 5 (DB 5): this level of contribution margin accounting constitutes the clear profit after earning the discounted claims expenditure plus all external and internal costs including the cost of capital.

Corporate Governance: serves to ensure responsible management and supervision of enterprises and is intended to foster the trust of investors, clients, employees and the general public in companies.

Critical illness coverages: cf. → dread disease coverages

DB 5: cf. → contribution margin accounting level 5

Deposit accounting: an accounting method originating in US accounting principles for the recognition of short-term and multi-year insurance and reinsurance contracts with no significant underwriting risk transfer. The standard includes inter alia provisions relating to the classification of corresponding contract types as well as the recognition and measurement of a deposit asset or liability upon inception of such contracts.

Deposits with ceding companies/deposits received from retrocessionaires (also: funds held by ceding companies/funds held under reinsurance treaties): collateral provided to cover insurance liabilities that a (re-)insurer retains from the liquid funds which it is to pay to a reinsurer under a reinsurance treaty. In this case, the retaining company shows a deposit received, while the company furnishing the collateral shows a deposit with a ceding company.

Derivatives, derivative financial instruments: these are financial products derived from underlying primary instruments such as equities, fixed-income securities and foreign exchange instruments, the price of which is determined on the basis of an underlying security or other reference asset. Notable types of derivatives include swaps, options and futures.

Direct business: business focused on narrowly defined portfolios of niche or other non-standard risks.

Direct (also: primary) insurer: company which accepts risks in exchange for an insurance premium and which has a direct contractual relationship with the policyholder (private individual, company, organisation).

Discounting of loss reserves: determination of the present value of future profits through multiplication by the corresponding discount factor. In the case of the loss reserves this is necessary because of the new profit calculation methods for tax purposes applicable to German joint-stock corporations.

Diversification: orientation of business policy towards various revenue streams in order to minimise the effects of economic fluctuations and stabilise the result. Diversification is an instrument of growth policy and risk policy for a company.

Dread disease (also: critical illness) coverages: personal riders on the basis of which parts of the sum insured which would otherwise only become payable on occurrence of death are paid out in the event of previously defined severe illnesses.

Earnings per share, diluted: ratio calculated by dividing the consolidated net income (loss) by the weighted average number of shares outstanding. The calculation of the diluted earnings per share is based on the number of shares including subscription rights already exercised or those that can still be exercised.

Earnings retention: non-distribution of a company's profits leading to a different treatment for tax purposes than if profits were distributed.

Excess of loss treaty: cf. → non-proportional reinsurance

Excess return on capital allocated (xRoCA): describes the IVC in relation to the allocated capital and shows the relative excess return generated above and beyond the weighted cost of capital.

Expense ratio: administrative expenses (gross or net) in relation to the (gross or net) premium earned.

Exposure: level of danger inherent in a risk or portfolio of risks; this constitutes the basis for premium calculations in reinsurance.

Facultative reinsurance: participation on the part of the reinsurer in a particular individual risk assumed by the direct insurer. This is in contrast to obligatory (also: treaty) reinsurance.

Fair value: price at which a financial instrument would be freely traded between two parties.

Financial Solutions: refers to reinsurance transactions which – in addition to the transfer of biometric risks – also include financing components. They generally employ the future profits contained in a block of new or inforce business to enable a ceding company to achieve a desired financial objective. Such reinsurance solutions provide direct insurers with an alternative means of accessing capital in order, for example, to pursue new lines of business or increase capital reserves.

Frequency losses: Losses that occur frequently in a foreseeable amount, i.e. where the underlying risks are associated with relatively high probabilities of occurrence and usually low loss amounts.

Funds held by ceding companies/funds held under reinsurance treaties: cf. → deposits with ceding companies/deposits received from retrocessionaires

Goodwill: the excess of the cost of an acquired entity over the net of the amounts assigned to assets acquired and liabilities assumed.

Gross/Retro/Net: gross items constitute the relevant sum total deriving from the acceptance of direct insurance policies or reinsurance treaties; retro items constitute the relevant sum total deriving from own reinsurance cessions. The difference is the corresponding net item (gross – retro = net, also: for own account).

Hybrid capital: debt structure which because of its subordination bears the character of both debt and equity.

IBNR (Incurred but not reported) reserve: provision for claims which have already occurred but which have not yet been reported.

Impairment: extraordinary amortisation taken when the present value of the estimated future cash flow of an asset is less than its book value.

Insurance pool: a risk-sharing partnership under civil law formed by legally and economically independent insurers and reinsurers in order to create a broader underwriting base for particularly large or unbalanced risks. The members undertake to write certain risks only within the scope of the insurance pool. They include such risks – while maintaining their commercial independence – in the insurance pool against a commission fee. Each insurer participates in the profit or loss of the insurance pool according to its proportionate interest. Reinsurance is often ceded or accepted in order to further diversify the risk. Pools can be divided into two types: coinsurance pools, in which all members take the role of primary insurers according to their interests, and reinsurance pools, in which a primary insurer writes the risks and then spreads them among the participating insurers by way of reinsurance.

International Securities Identification Number (ISIN): ten-character universal code used to identify securities internationally. It is prefixed by a country code that specifies the country where the issuer entity is legally registered or in which it has legal domicile, e. g. DE = Germany.

Intrinsic value creation (IVC): the IVC is calculated according to the following formula: real operating value creation = adjusted operating profit (EBIT) – (capital allocated x weighted cost of capital). IVC is a tool of value-based enterprise management used to measure the accomplishment of long-term targets on the level of the Group, the individual business groups and the operating units (profit centres).

Investment grade: investment grade ratings are awarded to companies and assigned to securities that have a low risk profile. They contrast with non-investment-grade ratings, which by definition include speculative elements and therefore entail a significantly higher risk.

IVC: cf. ➝ Intrinsic Value Creation

Issuer: private enterprise or public entity that issues securities, e. g. the federal government in the case of German Treasury Bonds and a joint-stock corporation in the case of shares.

Leader: if several (re-)insurers participate in a contract, one company assumes the role of leader. The policyholder deals exclusively with this lead company. The lead (re-)insurer normally carries a higher percentage of the risk for own account.

Letter of credit (LOC): bank guarantee; at the request of the guaranteed party, the bank undertakes to render payment to the said party up to the amount specified in the LOC. This method of providing collateral in reinsurance business is typically found in the USA.

Life and health (re-)insurance: collective term for the lines of business concerned with the insurance of persons, i. e. life, pension, health and personal accident insurance.

Life business: this term is used to designate business activities in our life and health reinsurance business group.

Longevity risk: in general terms, the actuarial risk that a person receiving regular living benefits – such as annuities or pensions – lives longer than expected.

Loss, economic: total loss incurred by the affected economy as a whole following the occurrence of a loss. The economic loss must be distinguished from the insured loss.

Loss, insured: the insured loss reflects the total amount of losses covered by the insurance industry (insurers and reinsurers).

Loss ratio: proportion of loss expenditure in the retention relative to the (gross or net) premium earned.

Major loss: loss which has special significance for the direct insurer or reinsurer due to the amount involved; it is defined as a major loss in accordance with a fixed loss amount or other criteria (in the case of Hannover Re more than EUR 10 million gross).

Major loss budget: modelled loss expectancy for business with natural perils exposure with respect to net losses larger than EUR 10 million plus the average of the past 10 years for man-made net losses larger than EUR 10 million.

Mark-to-market valuation: the evaluation of financial instruments to reflect current market value or fair value.

Matching currency cover: coverage of technical liabilities in foreign currencies by means of corresponding investments in the same currency in order to avoid exchange-rate risks.

Modified Coinsurance (ModCo) treaty: type of reinsurance treaty where the ceding company retains the assets with respect to all the policies reinsured and also establishes and retains the total reserves on the policies, thereby creating an obligation to render payments to the reinsurer at a later date. Such payments include a proportional share of the gross premium plus a return on the assets.

Morbidity risk: in general terms, the actuarial risk that a person receiving health, disability or long-term-care benefits triggered by illness, malfunctioning of body parts, injury or frailty experiences a higher or longer than expected morbidity or disability leading to a higher payment amount, higher frequency or longer duration.

Mortality risk: in general terms, the actuarial risk that a person upon whose death a benefit is payable lives shorter than expected. From a (re)insurer's perspective, this is the risk that the observed mortality experience in an underlying portfolio deviates from what had previously been calculated on the basis of actuarial assumptions.

Net: cf. → Gross/Retro/Net

Non-proportional reinsurance: reinsurance treaty under which the reinsurer assumes the loss expenditure in excess of a particular amount (priority) (e.g. under an excess of loss treaty). This is in contrast to proportional reinsurance.

Obligatory (also: treaty) reinsurance: reinsurance treaty under which the reinsurer participates in a cedant's total, precisely defined insurance portfolio. This is in contrast to facultative reinsurance.

Other securities, available-for-sale: securities that cannot be clearly allocated to the "trading" or "held-to-maturity" portfolios; these securities can be disposed of at any time and are reported at their fair value at the balance sheet date. Changes in fair value are not recognised in the statement of income.

Other securities, held-to-maturity: investments in debt securities that can and are intended to be held to maturity. They are measured at amortised cost.

Other securities, trading: securities that are held principally for short-term trading purposes. They are measured at their fair value at the balance sheet date.

Portfolio: a) all risks assumed by an insurer or reinsurer in a defined sub-segment (e.g. line of business, country) or in their entirety; b) group of investments defined according to specific criteria.

Premium: agreed remuneration for the risks accepted from an insurance company. Unlike the earned premiums, the written premiums are not deferred.

Present value of future profits (PVFP): intangible asset primarily arising from the purchase of life and health insurance companies or portfolios. The present value of expected future profits from the portfolio assumed is capitalised and amortised according to schedule.

Price earnings ratio (PER): a valuation ratio of a company's share price compared to its per-share earnings.

Primary insurer: cf. → direct insurer

Priority: direct insurer's loss amount stipulated under non-proportional reinsurance treaties; if this amount is exceeded, the reinsurer becomes liable to pay. The priority may refer to an individual loss, an accumulation loss or the total of all annual losses.

Probability level: cf. → confidence level

Property and casualty (re-)insurance: collective term for the lines of business concerned with the insurance of property, including for example liability, fire, hail or marine insurance.

Proportional reinsurance: reinsurance treaties on the basis of which shares in a risk or portfolio are reinsured under the relevant direct insurer's conditions. Premiums and losses are shared proportionately on a pro-rata basis. This is in contrast to non-proportional reinsurance.

Protection cover: protection of segments of an insurer's portfolio against major losses (per risk/per event), primarily on a non-proportional basis.

Provision: liability item as at the balance sheet date to discharge obligations which exist but whose extent and/or due date is/are not known. Technical provisions, for example, are for claims which have already occurred but which have not yet been settled, or have only been partially settled (= provision for outstanding claims, abbreviated to: claims provision).

Provision for unearned premiums (also: unearned premium reserve): premiums written in a financial year which are to be allocated to the following period on an accrual basis. This item is used to defer written premiums.

Purchase cost, amortised: the cost of acquiring an asset item including all ancillary and incidental purchasing costs; in the case of wasting assets less scheduled and/or special amortisation.

Quota share reinsurance: form of proportional reinsurance under which the reinsurer assumes a contractually set percentage share of the written risk. Since the insurer is responsible for acquisition, pricing, policy administration and claims handling, the administrative expenditure for the reinsurer is very low. The latter therefore participates in the aforementioned expenses through payment of a reinsurance commission. This commission can amount to 15% to 50% of the original premium depending upon the market and cost situation.

Rate: percentage rate (usually of the premium income) of the reinsured portfolio which is to be paid to the reinsurer as reinsurance premium under a non-proportional reinsurance treaty.

Reinsurer: company which accepts risks or portfolio segments from a direct insurer or another reinsurer in exchange for an agreed premium.

Reserve ratio: ratio of (gross or net) technical provisions to the (gross or net) premiums.

Retention: the part of the accepted risks which an insurer/reinsurer does not reinsure, i. e. shows as net (retention ratio: percentage share of the retention relative to the gross written premiums).

Retrocession (also: Retro): ceding of risks or shares in risks which have been reinsured. Retrocessions are ceded to other reinsurers in exchange for a pro-rata or separately calculated premium (cf. ➞ Gross/Retro/Net).

Risk, insured: defines the specific danger which can lead to the occurrence of a loss. The insured risk is the subject of the insurance contract.

Securitisation instruments: instruments for transferring reinsurance business to the capital markets with the goal of refinancing or placing insurance risks.

Segment reporting: presentation of items in the balance sheet and income statement split according to functional criteria such as business sectors and regions.

Spread loss treaty: treaty between an insurer and a reinsurer that covers risks of a defined portfolio over a multi-year period.

Structured entity: entity with specific characteristics not bound to a particular legal form that is used to conduct closely defined activities or to hold assets and for which the traditional concept of consolidation – based on voting rights – is often inadequate for determining who exercises control over the entity.

Structured reinsurance: reinsurance with limited potential for profits and losses. In most cases customers strive for risk equalisation over time or solvency relief, both of which have a stabilising effect on the ceding company's balance sheet.

Surplus reinsurance: form of proportional reinsurance under which the risk is not spread between the insurer and reinsurer on the basis of a previously agreed, set quota share. Instead, the insurer determines a maximum sum insured per risk up to which it is prepared to be liable. Risks that exceed the ceding company's retention (surpluses) are borne by the reinsurer. The reinsurer's lines thus vary according to the level of the retention and the sum insured of the reinsured contract. The reinsurer's liability is generally limited to a multiple of the ceding company's retention.

Surplus relief treaty: A reinsurance contract under which an admitted reinsurer assumes (part of) a ceding company's portfolio to relieve stress on the cedant's policyholders' surplus.

Survival ratio: reflects the ratio of loss reserves to paid losses under a specific contract or several contracts in a balance sheet year.

Technical result: balance of income and expenditure allocated to the insurance business and shown in the technical statement of income.

Treaty reinsurance: cf. ➞ obligatory reinsurance

Underwriting: process of examining, accepting or rejecting (re-)insurance risks and classifying those selected in order to charge the proper premium for each. The purpose of underwriting is to spread the risk among a pool of (re-)insureds in a manner that is equitable for the (re-)insureds and profitable for the (re-)insurer.

Unearned premium reserve: cf. ➞ provision for unearned premiums

Value of in-force business (VIF): present value of expected future profit flows from the portfolio of in-force retained business, discounted by a currency-specific risk discount rate. It is determined in accordance with local accounting principles.

xRoCA: cf. ➞ Excess Return on Capital Allocated

List of graphs, tables and charts

I Introductory Sections
M Management Report
N Notes

I Introductory Sections

M Management Report

N Notes

Imprint

Credits

Werner Bartsch, Hamburg/Germany
page 2, 6/7

Getty Images International, Dublin/Ireland:
Westend61
Seite 20/21

Mike Hill
Seite 28/29

Michael Blann
Seite 48/49

Bill Hinton Photography
Seite 76/77

artpartner-images
Seite 102/103

MundusImages
Seite 132/133

Published by

Hannover Rück SE
Karl-Wiechert-Allee 50
30625 Hannover, Germany
Tel. +49 511 5604-0
Fax +49 511 5604-1188

Consulting, design and realisation

Silvester Group, Hamburg, Germany
www.silvestergroup.com

Design of photo spread concept

ressourcenmangel, Berlin, Germany
www.ressourcenmangel.de

Contact information

Corporate Communications

Karl Steinle

Tel. +49 511 5604-1500
Fax +49 511 5604-1648

karl.steinle@hannover-re.com

Media Relations

Gabriele Handrick

Tel. +49 511 5604-1502
Fax +49 511 5604-1648

gabriele.handrick@hannover-re.com

Investor Relations

Julia Hartmann

Tel. +49 511 5604-1529
Fax +49 511 5604-1648

julia.hartmann@hannover-re.com

A printed version of the Hannover Re Group's Annual Report is also available in German. The report can additionally be accessed online in English and German as an HTML version and downloaded in PDF format.

www.hannover-re.com

This is a translation of the original German text; the German version shall be authoritative in case of any discrepancies in the translation.

We would also be pleased to send you copies of the Annual Reports of the Hannover Re Group and Hannover Rück SE in English or German. If you wish to receive paper copies of any of these versions please contact Corporate Communications on:

Tel. + 49 511 5604-2343
Fax + 49 511 5604-1648 or order them online at
www.hannover-re.com under
"Investors/Results and reports"

Financial calendar 2018

13 March 2018

Annual financial statements 2017
Annual Results Press Conference, Hannover
Analysts' Meeting, Frankfurt

7 May 2018

Quarterly Statement as at 31 March 2018
Annual General Meeting
Hannover Congress Centrum
Theodor-Heuss-Platz 1–3
30175 Hannover

9 August 2018

Half-yearly Financial Report 2018

17 and 18 October 2018

21st International Investors' Day, London

8 November 2018

Quarterly Statement as at 30 September 2018