

somewhat  
different

# 50 *years*

Annual Report 2016

hannover **re**<sup>®</sup>

# Key figures

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	2016	+/- previous year	2015	2014	2013	2012 <sup>1</sup>
Figures in EUR million						
<b>Results</b>						
Gross written premium	16,353.6	-4.2%	17,068.7	14,361.8	13,963.4	13,774.2
Net premium earned	14,417.6	-1.2%	14,593.0	12,423.1	12,226.7	12,279.2
Net underwriting result	115.9	+23.6%	93.8	(23.6)	(83.0)	(96.9)
Net investment income	1,550.4	-6.9%	1,665.1	1,471.8	1,411.8	1,655.7
Operating profit (EBIT)	1,689.3	-3.8%	1,755.2	1,466.4	1,229.1	1,393.9
Group net income	1,171.2	+1.8%	1,150.7	985.6	895.5	849.6
<b>Balance sheet</b>						
Policyholders' surplus	11,231.4	+9.4%	10,267.3	10,239.5	8,767.9	8,947.2
Equity attributable to shareholders of Hannover Rück SE	8,997.2	+11.5%	8,068.3	7,550.8	5,888.4	6,032.5
Non-controlling interests	743.3	+4.8%	709.1	702.2	641.6	681.7
Hybrid capital	1,490.8	+0.1%	1,489.9	1,986.5	2,237.8	2,233.0
Investments (excl. funds with-held by ceding companies)	41,793.5	+6.2%	39,346.9	36,228.0	31,875.2	31,874.4
Total assets	63,528.6	+0.5%	63,214.9	60,457.6	53,915.5	54,811.7
<b>Share</b>						
Earnings per share (basic and diluted) in EUR	9.71	+1.8%	9.54	8.17	7.43	7.04
Book value per share in EUR	74.61	+11.5%	66.90	62.61	48.83	50.02
Dividend	603.0 <sup>2</sup>	+5.3%	572.8	512.5	361.8	361.8
Dividend per share in EUR	3.50+1.50 <sup>2,3</sup>	+5.3%	3.25+1.50 <sup>3</sup>	3.00+1.25 <sup>3</sup>	3.00	2.60+0.40 <sup>3</sup>
Share price at year-end in EUR	102.80	-2.7%	105.65	74.97	62.38	58.96
Market capitalisation at year-end	12,397.4	-2.7%	12,741.1	9,041.2	7,522.8	7,110.4
<b>Ratios</b>						
Combined ratio (property and casualty reinsurance) <sup>4</sup>	93.7%		94.4%	94.7%	94.9%	95.8%
Large losses as percentage of net premium earned (property and casualty reinsurance) <sup>5</sup>	7.8%		7.1%	6.1%	8.4%	7.0%
Retention	89.3%		87.0%	87.6%	89.0%	89.8%
Return on investment (excl. funds withheld by ceding companies) <sup>6</sup>	3.0%		3.5%	3.3%	3.4%	4.1%
EBIT margin <sup>7</sup>	11.7%		12.0%	11.8%	10.1%	11.4%
Return on equity (after tax)	13.7%		14.7%	14.7%	15.0%	15.4%

<sup>1</sup> Adjusted pursuant to IAS 8

<sup>2</sup> Proposed dividend

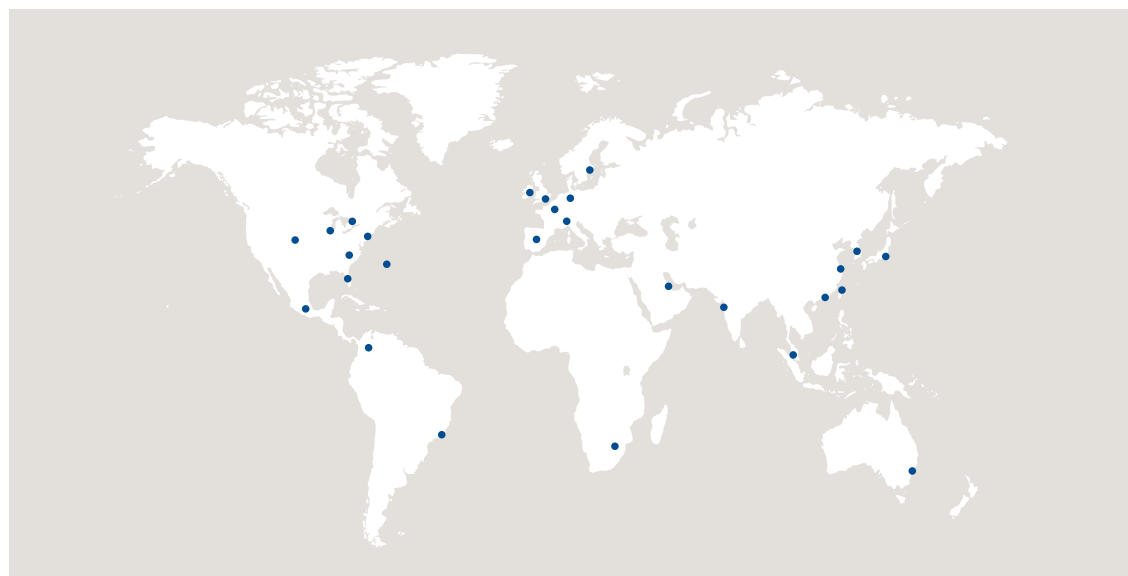
<sup>3</sup> Dividend of EUR 3.50 plus special dividend of EUR 1.50 for 2016, dividend of EUR 3.25 plus special dividend of EUR 1.50 for 2015, EUR 3.00 plus special dividend of EUR 1.25 for 2014 and EUR 2.60 plus special dividend of EUR 0.40 for 2012

<sup>4</sup> Including expenses on funds withheld and contract deposits

<sup>5</sup> 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

<sup>6</sup> Excluding effects from ModCo derivatives

<sup>7</sup> Operating result (EBIT) / net premium earned



A complete list of our shareholdings is provided on page 158 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 242 et seq.

## Strategic business groups

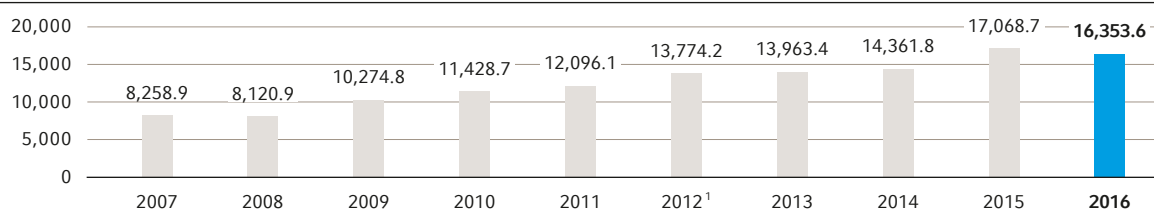


# An overview

## Gross premium

in EUR million

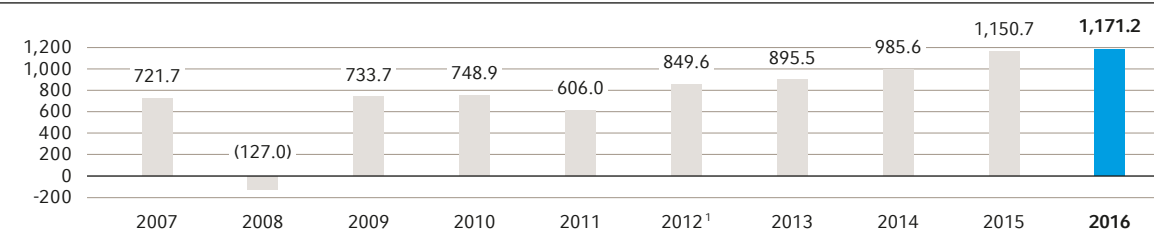
I01\*



## Group net income (loss)

in EUR million

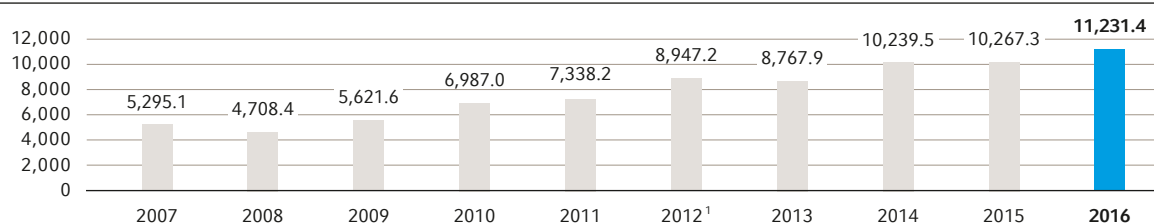
I02\*



## Policyholders' surplus

in EUR million

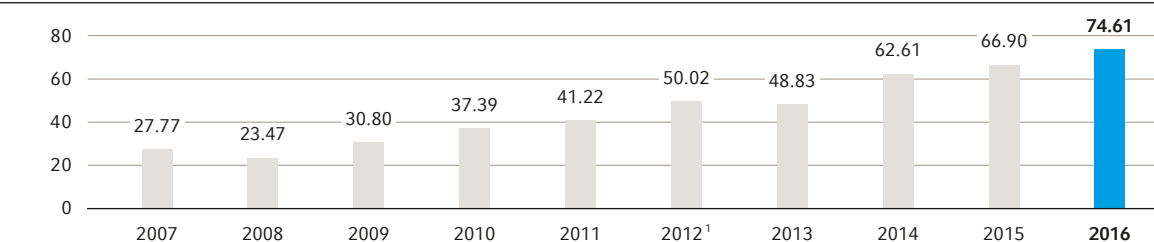
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## Book value per share

in EUR

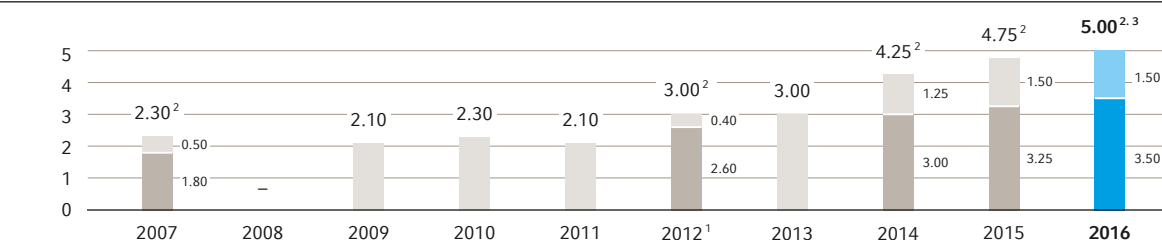
I04\*



## Dividend

in EUR

I05\*



<sup>1</sup> Adjusted pursuant to IAS 8

<sup>2</sup> 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, EUR 3.00 plus special dividend of EUR 1.25 for 2014, EUR 2.60 plus special dividend of EUR 0.40 for 2012 and EUR 1.80 plus special dividend of EUR 0.50 for 2007

<sup>3</sup> Proposed dividend

# About us



Hannover Re, with gross premium of more than EUR 16 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 2,900 staff. Established in 1966, the Hannover Re Group today has a network of more than 100 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 very good financial strength ratings: Standard & Poor's "AA-" (Very Strong) and A.M. Best "A+" (Superior).

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\* Graphs, tables and charts are numbered and listed on page 250 et seq.

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Ulrich Wallin,  
Chairman of the  
Executive Board

## Dear Shareholders, Ladies and Gentlemen,

The 2016 financial year marked Hannover Re's fiftieth year of doing business: on 6 June your company celebrated the first half-century of its existence. It is with great pleasure that I am able to present to you another very good business result for this special year in your company's history. As we have already reported in our ad hoc disclosure in early February, we were able to further improve on the very good result of the previous year and generated a fifth consecutive record profit with Group net income of EUR 1.17 billion.

Once again, the Property & Casualty reinsurance business group played the largest part. This shows that even in a difficult market climate your company can operate successfully in property and casualty reinsurance thanks to its good competitive positioning and low administrative expenses. Yet in life and health reinsurance, too, we achieved a solid result that entirely lived up to our expectations. It is also especially gratifying to note that despite the protracted low interest rate environment we again booked very good investment income that exceeded our targeted return on investment.

Nevertheless, it is also the case that for the first time in many years we recorded a decrease in gross premium, which fell by a modest 2 percent adjusted for exchange rate effects. This can be attributed on the one hand to the sustained competition in property and casualty reinsurance, which necessitates a profit-oriented, selective underwriting policy. As an additional factor, in life and health reinsurance a number of sizeable treaties from the previous year were not renewed for a variety of reasons. Ultimately, however, it must be stated that in the prevailing market climate the pursuit of profit targets clearly takes precedence over growth targets.

Shareholders' equity also developed satisfactorily, rising by around 12 percent compared to the position at the beginning of the year to reach EUR 9 billion as at 31 December 2016. Above all, this is a reflection of the further reinforcement of your company's financial strength. The higher shareholders' equity has inevitably had a restraining effect on the return on equity. Amounting to 13.7 percent, it nevertheless remains quite clearly above our minimum target. The capitalisation of the Hannover Re Group remains very comfortable, not least due to the increased IFRS shareholders' equity. This is the case both in terms of the requirements imposed by the Solvency II framework, which – as you know – entered into force in 2016, and with an eye to the important ratings that we receive from the rating agencies. With this in mind, it is our intention to adjust the further increase in shareholders' equity in keeping with the development of our business by distributing another special dividend. By taking this step we are seeking, among other things, to ensure a continued attractive return on equity going forward. In view of the pleasing business development, the Executive Board and Supervisory Board will therefore propose to the Annual General Meeting in May of this year that a dividend of altogether EUR 5.00 per share should be distributed. This is comprised of an increased regular dividend of EUR 3.50 and an unchanged special dividend year-on-year of EUR 1.50 per share.

I would now like to discuss in greater depth developments in our two business groups – Property & Casualty and Life & Health reinsurance – as well as on the investments side:

Property and casualty reinsurance remains under considerable competitive pressure. This is due not least to the overall good results posted by reinsurers since 2012. Investors such as pension funds and hedge funds, which as sources of so-called alternative capital are increasingly providing reinsurance capacity in the context of collateralised reinsurance arrangements, have similarly generated satisfactory results on the whole. The availability of reinsurance capacity from both traditional reinsurers and collateralised reinsurers backed by alternative capital has consequently continued to grow, with the result that supply far exceeds demand. This trend has been further facilitated by the fact that in each of the years since 2012 natural catastrophe losses, in particular, came in below the expected loss levels. This was also true of 2016, even though total expenditure on large losses was higher than in the previous years. Despite these general framework conditions, it should be noted that developments certainly varied across the individual lines and geographical regions. The market thus responded to loss-impacted reinsurance programmes, as it has in the past, with rate increases. Furthermore, in some areas of liability insurance – most notably in the motor sector – it continues to be possible to push through the higher rates needed to safeguard margins that are required from a technical risk perspective on account of lower interest rates. We also observed stronger demand in the North American market, extending among other things to reinsurance covers for cyber risks. Demand for reinsurance solutions offering solvency relief, which has been driven by more exacting capital adequacy regulations both in Europe and Asia, continued to rise. We benefited from these trends thanks to our very good market position. All in all, the premium volume for property and casualty reinsurance remained virtually stable – adjusted for exchange rate effects – at EUR 9 billion.

The most costly event for our company in 2016 was the devastating forest fires in the Canadian province of Alberta, with net loss expenditure of EUR 128 million. Further substantial losses were incurred from Hurricane Matthew and the earthquakes in Ecuador and New Zealand. Total net expenditure on large losses in the year under review came to around EUR 627 million, thereby exceeding the amount of EUR 573 million incurred in 2015. The burden of large losses for 2016 was, however, still well below our budgeted level of EUR 825 million. Our loss ratio consequently improved again to stand at 93.7 percent in the year under review, assisted in part by the release of reserves from prior years that were no longer required. The operating profit for property and casualty reinsurance remained stable on a thoroughly pleasing level at EUR 1.3 billion.

In life and health reinsurance we achieved a good result with EBIT of EUR 343 million. The fact that this figure came in below the previous year can be attributed largely to the non-recurrence of a special effect that had supported the operating result in the prior year. Earnings were impacted by adverse effects from parts of our US mortality portfolio, as had been the case in previous years. The vast bulk of our other business is nevertheless notable for its rising profitability. This is especially true of financial solutions business, which once again delivered very good results. Furthermore, it is our expectation that the steps taken to optimise our US mortality business will continue to contribute to improved profitability – as could already be seen to some extent in 2016. In the year under review we saw a rise in demand for reinsurance relating to the coverage of longevity risks, especially from pension funds. Similarly, the requirements of Solvency II have stimulated stronger demand for tailor-made reinsurance solutions.

After the vigorous growth booked in the previous year, the gross premium volume in life and health reinsurance contracted slightly in 2016 to EUR 7 billion owing to the fact that a number of large contracts were not renewed. Net premium, on the other hand, rose moderately – at constant exchange rates – on the back of an increased retention.

As mentioned at the outset, in the absence of any easing in the challenging framework conditions we are thoroughly satisfied with the development of our investments. The portfolio of assets under own management grew by six percent to around EUR 42 billion, driven primarily by the continued positive operating cash flow. This favourable performance was further assisted by increased hidden reserves and the appreciation of the US dollar against our reporting currency, the euro.

Income from our investments under own management reached another very gratifying level of EUR 1.2 billion, even though it did not quite match up to the previous year's figure owing to the non-recurrence of a special effect in life and health reinsurance.

For the current financial year, too, we see good prospects of achieving another healthy year-end result. We should benefit here from our position as one of the leading reinsurers and from our low administrative expense ratio relative to our competitors. As a further factor, profitability in property and casualty reinsurance is very well safeguarded by the continued high confidence level of our loss reserves. In life and health reinsurance, too, we have been able to write attractive new business, thereby establishing the platform for increased earnings. Although the return on our investments is expected to decline, we anticipate broadly stable income based on the growing portfolio.

We enjoyed a highly satisfactory round of treaty renewals as at 1 January 2017 in traditional property and casualty reinsurance. Particularly in North America, and here above all in Canada, as well as in parts of Europe and in credit and surety business, we were able to enlarge our portfolio. On the other hand, in keeping with our profit-oriented underwriting policy, we relinquished premium volumes in some Asian markets and in the aviation line, for example. With the total premium volume remaining virtually stable, we were thus able to preserve the quality and profitability of our portfolio in traditional property and casualty reinsurance. In addition, considerable growth was generated in the area of structured reinsurance, where we were able to leverage the increased demand for customised reinsurance solutions designed to provide solvency relief. We also wrote attractive new business in life and health reinsurance, most notably in Asia and North America.



With this in mind, we are revising upwards our growth expectation for 2017 and – adjusted for exchange rate effects – now anticipate a low single-digit percentage increase in gross premium. Furthermore, we are raising our guidance for Group net income. Reflecting the fact that we have been able to successfully close several financial solutions contracts in life and health reinsurance, we now expect Group net income to exceed EUR 1 billion. Our forecast is always subject to the proviso that major losses remain within the budget of EUR 825 million and assumes that there are no unforeseen distortions on capital markets. We anticipate a return on investment of 2.7 percent.

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 reliable 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

Ulrich Wallin



Roland Vogel



Claude Chèvre (left) and Dr. Klaus Miller (right)

## **Roland Vogel**

Finance and Accounting  
Information Technology  
Investment and Collateral Management  
Facility Management

## **Ulrich Wallin**

### **Chairman**

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

## **Claude Chèvre**

Life & Health Reinsurance

- Africa, Asia, Australia/New Zealand, Latin America, Western and Southern Europe
- Longevity Solutions

## **Dr. Klaus Miller**

Life & Health Reinsurance

- United Kingdom/Ireland, North America, Northern, Eastern and Central Europe

Dr. Michael Pickel



Jürgen Gräber



Sven Althoff

#### **Sven Althoff**

##### Specialty Lines Worldwide

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

#### **Dr. Michael Pickel**

##### Group Legal Services

##### Run-Off Solutions

##### Target Markets in Property & Casualty Reinsurance

- North America
- Continental Europe

#### **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

# The Hannover Re share

- Share performance of 2.1% including reinvested dividends
- Proposed dividend of EUR 3.50 plus special dividend of EUR 1.50 per share above the strategic payout ratio

## Stock markets influenced by political and global economic uncertainties

After the pleasing returns enjoyed in 2015, German blue chips suffered their worst trading start in over 15 years right out of the gate on the first day of 2016 with a fall of 4.3%. The downward slide was triggered by poor economic data out of China as well as the expiry of holding periods for equities that had been imposed there in the summer of 2015 on account of stock market turmoil. Taken together with renewed trading suspensions on the Chinese stock market, the terrorist attack in Istanbul and fears of deflation in the Eurozone, this caused the DAX to touch its low for the year as early as 11 February at 8,753 points. A number of issues prompted heightened anxiety on the German stock exchange as the year progressed, leading to sometimes marked price volatility: the UK's possible withdrawal from the European Union – which was confirmed by the result of the referendum on 24 June –, terrorist attacks in Brussels and Nice, political unrest in Turkey and speculation about the outcome of the US presidential election. From the third quarter onwards the mood became increasingly more settled, enabling the German DAX bellwether index to close out the year at 11,481 points with a gain of 6.9%.

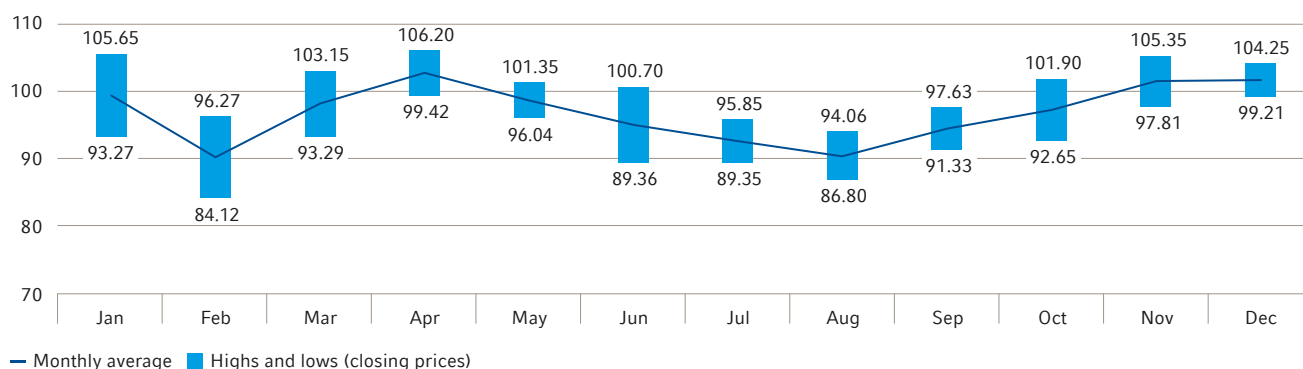
The MDAX turned in an almost parallel performance: having opened the year at 20,775 points, it fell to its lowest point of the year (17,595 points) in early February. The ensuing roller-coaster ride left the index at 22,189 points after twelve months with a gain of 6.8%. The Dow Jones fared considerably more positively to close the year up 15.3% at 20,330 points.

## Volatile development of the Hannover Re share

The Hannover Re share started 2016 at a price of EUR 105.65. The poor performance of stock markets early in the year, driven in particular by uncertainties surrounding the global economy, was also reflected in the development of the Hannover Re share. This was exacerbated by the ongoing intensely competitive environment in the reinsurance industry. The share continued to slide until mid-February, touching its lowest point of the year on 11 February 2016 at EUR 84.12. On the back of broadly more positive market sentiment and the publication of another record result for the financial year just ended, this negative trend reversed itself and the share posted steady price gains until 14 April 2016 – the date on which it reached its high for the year of EUR 106.20. In the months that followed the price was impacted by an elevated burden of large losses in the second quarter, causing the share to trend modestly lower. In the third quarter the share moved sideways. Towards year-end the share climbed slightly again, bolstered by favourable Group net income after nine months and a positive expectation for the result of the full 2016 financial year. In a protracted, relatively low interest rate environment the attractive dividend yield of the Hannover Re share also played a significant part here. The Hannover Re share closed the 2016 financial year down 2.7% at EUR 102.80; it thus recorded a performance of 2.1% including reinvested dividends in a stock market year shaped by a high degree of political and global economic uncertainties. Over the year the Hannover Re share thus performed somewhat more poorly than its benchmark indices, namely the DAX (+6.9%), MDAX (+6.8%) and the Global Reinsurance (Performance) Index (+16.5%) – although it should be noted that the considerably stronger performance of the Global Reinsurance

**Highs and lows of the Hannover Re share**  
in EUR

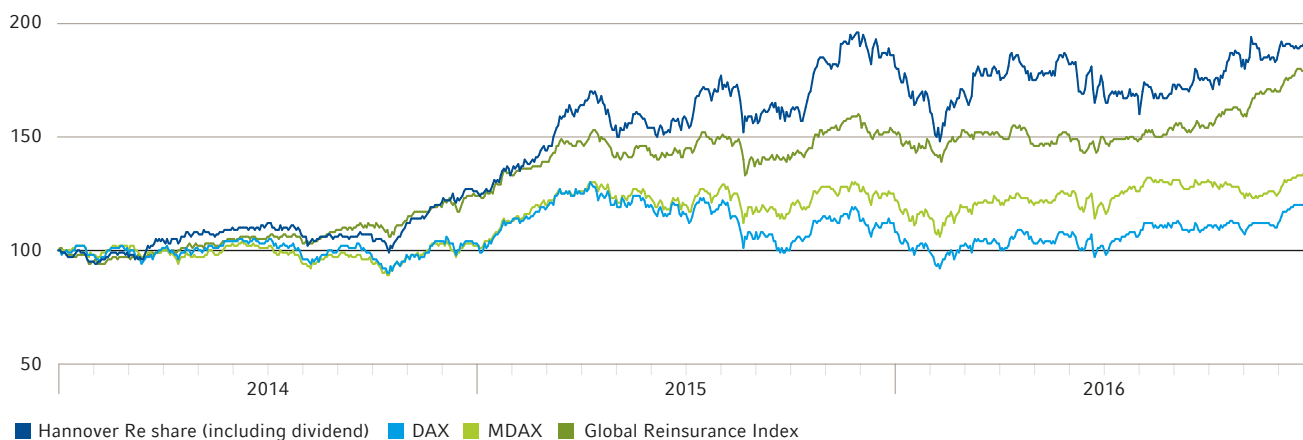
109



## Relative performance of the Hannover Re share

in %

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Index can be attributed in particular to positive exchange rate effects from the translation of the US dollar. The Global Reinsurance Index tracks the share performance including dividend payments of the world's 20 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 89.7%. It therefore once again clearly outperformed the DAX (20.2%), MDAX (33.9%) and Global Reinsurance Index (78.1%) benchmark indices.

Based on the year-end closing price of EUR 102.80, Hannover Re's market capitalisation totalled EUR 12.4 billion at the end of the 2016 financial year, a decrease of EUR 0.3 billion or 2.7% compared to the previous year's figure of EUR 12.7 billion. According to the rankings drawn up by Deutsche Börse AG, the company placed seventh in the MDAX at the end of December with a free float market capitalisation of EUR 6,169.8 million and thirteenth with a trading volume of EUR 3,827.4 million over the past twelve months.

With a book value per share of EUR 74.61 the Hannover Re share showed a price-to-book (P/B) ratio of 1.38 at the end of the year under review; compared to the average MDAX P/B ratio of 2.04 as at year-end the share thus continues to be very moderately valued.

## Proposed dividend again includes payment of a special dividend

The Executive Board and Supervisory Board intend to propose to the Annual General Meeting on 10 May 2017 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 comfortably in excess of the required capital. Based on the year-end closing price of EUR 102.80, this produces a dividend yield of 4.9%.

## Annual General Meeting looks back on 50 years of company history and a fourth consecutive record profit

The Annual General Meeting of Hannover Rück SE was held on 10 May 2016 at Hannover Congress Centrum (HCC). Altogether, including postal ballots around 81% of the share capital was represented.

In his address to shareholders Chief Executive Officer Ulrich Wallin took the opportunity to mark the company's fiftieth anniversary by profiling its historical development on the basis of selected key figures. He then looked back on the 2015 financial year, which had closed with a new record profit for Hannover Re of EUR 1.15 billion. The two business groups of Property & Casualty and Life & Health reinsurance as well as very good investment income all contributed to this successful performance. In light of this good result and the company's very healthy capitalisation, the shareholders accepted the proposal of the Executive Board and Supervisory Board that a gross dividend of EUR 4.75 per share should be paid. The payout took the form of a dividend of EUR 3.25 per share 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 10 May 2017 in Hannover.

## Strong presence on the capital market

Against the backdrop of political and economic uncertainties and the continued intensely competitive market environment in reinsurance, Hannover Re experienced further strong demand for information from capital market players in 2016. We use primarily roadshows and investor conferences in order to initiate or maintain as well as consolidate our dialogue with institutional investors. Altogether, members of the Executive Board and representatives of the Investor Relations department attended 14 international capital market conferences (previous year: 16) 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 19<sup>th</sup> Investors' Day on 20 October 2016. Around 40 analysts and institutional investors assembled in London to engage in an intensive exchange of views with members of the Executive Board. On the occasion of the company's fiftieth anniversary, the Executive Board took the opportunity to review the company's evolution into one of the world's foremost reinsurance groups with a presentation of selected key figures. It also set out the reasons why reinsurance demand will continue to grow in future and described how the company intends to share in this growth. 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 and a presentation of the growth opportunities in the North American property and casualty reinsurance market. In common with many of our other IR events, the Investors' Day is broadcast live on our website.

## Sustainability reporting

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 internationally recognised reporting standards of the Global Reporting Initiative (GRI). Based on this structured reporting format, which was published for the fifth year in succession, the company's sustainability performance was also assessed by the rating agency Oekom Research; its above-average fulfilment of industry-specific requirements was confirmed with the award of "Prime" status. Hannover Re also retained its place in the worldwide FTSE4Good Index Series in the financial year just ended.

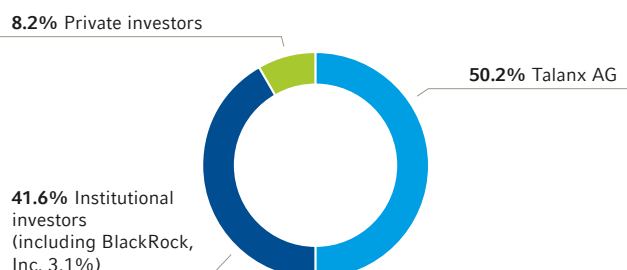
## Shareholding structure

Our share register showed some 41,000 shareholders (37,000) at the end of the year. 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 38.5% – were held by institutional investors such as banks, insurers and

investment companies (42.0%); private investors held 8.2% (7.8%). Our shareholders include investors who pay particularly close attention to sustainability criteria.

Shareholding structure as at 31 December 2016

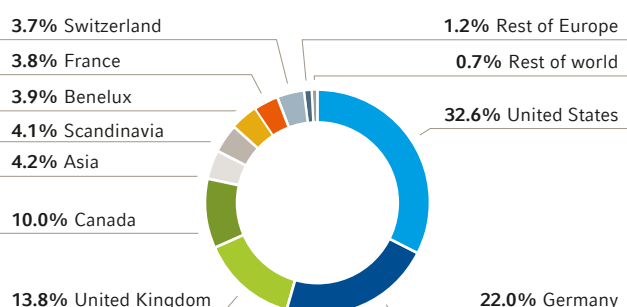
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At the end of November 2016 an analysis of the company's shareholding structure was carried out. It determined that the geographical breakdown of the shares held by institutional investors is as follows:

Geographical breakdown of the shares held by institutional investors

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## Analysts assess Hannover Re share more favourably and further increase price target

In total, around 270 analyst studies were published on Hannover Re and the insurance sector in the 2016 financial year. By the end of the year 34 analysts had handed down opinions on Hannover Re: 10 analysts (3) recommended the Hannover Re share as "buy" or "overweight". Altogether 17 opinions (8) were a "hold", making this the most common. "Underweight" or "sell" recommendations were issued a total of 7 (21) times. Overall, then, the analysts assessed Hannover Re and the share performance more favourably than in the previous year. This development is particularly pleasing in view of what is still a relatively superior valuation measured against peer companies. The analysts' average price target also moved in a positive direction in the year under review, increasing further from EUR 91.88 at the start of the financial year to EUR 101.34 at year-end.



## Basic information

I 13

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 2016)	120,597,134
Common shares (as at 31 December 2016)	EUR 120,597,134.00
Share class	No-par-value registered shares

## Key figures

I 14

in EUR	2016	2015	2014	2013	2012 <sup>1</sup>
Number of shares in million	120.6	120.6	120.6	120.6	120.6
Annual low <sup>2</sup>	84.12	73.81	58.88	52.42	37.355
Annual high <sup>2</sup>	106.20	111.50	75.92	64.34	59.81
Year-opening price <sup>2</sup>	105.65	74.97	62.38	58.96	38.325
Year-ending price <sup>2</sup>	102.80	105.65	74.97	62.38	58.96
Market capitalisation at year-end in EUR million	12,397.4	12,741.1	9,041.2	7,522.8	7,110.4
Equity attributable to shareholders of Hannover Rück SE in EUR million	8,997.2	8,068.3	7,550.8	5,888.4	6,032.5
Book value per share	74.61	66.90	62.61	48.83	50.02
Earnings per share (basic and diluted)	9.71	9.54	8.17	7.43	7.04
Dividend per share	3.50 + 1.50 <sup>3,4</sup>	3.25 + 1.50 <sup>4</sup>	3.00 + 1.25 <sup>4</sup>	3.00	2.60 + 0.40 <sup>4</sup>
Cash flow per share	19.33	25.75	16.01	18.45	21.87
Return on equity (after tax) <sup>5</sup>	13.7%	14.7%	14.7%	15.0%	15.4%
Dividend yield <sup>6</sup>	4.9%	4.5%	5.7%	4.8%	5.1%
Price-to-book (P/B) ratio <sup>7</sup>	1.4	1.6	1.2	1.3	1.2
Price/earnings (P/E) ratio <sup>8</sup>	10.6	11.1	9.2	8.4	8.4
Price-to-cash flow (P/CF) ratio <sup>9</sup>	5.3	4.1	4.7	3.4	2.7

<sup>1</sup> Adjusted pursuant to IAS 8<sup>2</sup> Xetra daily closing prices from Bloomberg<sup>3</sup> Proposed dividend<sup>4</sup> Dividend of EUR 3.50 plus special dividend of EUR 1.50 for 2016, EUR 3.25 plus special dividend of EUR 1.50 for 2015, EUR 3.00 plus special dividend of EUR 1.25 for 2014 and EUR 2.60 plus special dividend of EUR 0.40 for 2012<sup>5</sup> Earnings per share/average of book value per share at start and end of year<sup>6</sup> Dividend per share/year-end closing price<sup>7</sup> Year-end closing price/book value per share<sup>8</sup> Year-end closing price/earnings per share<sup>9</sup> Year-end closing price/cash flow (from operating activities) per share

## Free float

25%

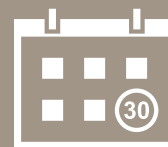
1994



49.8%

2016

1994



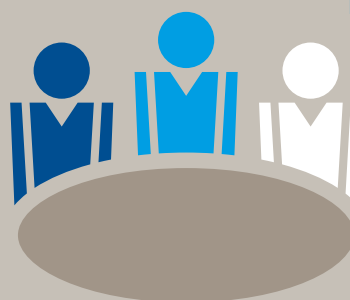
Hannover Re's initial public offering took place on 30 November

## Shareholding structure

as at 31 December 2016

41.6%

**Institutional investors**  
(including BlackRock, Inc. 3.1%)



8.2%

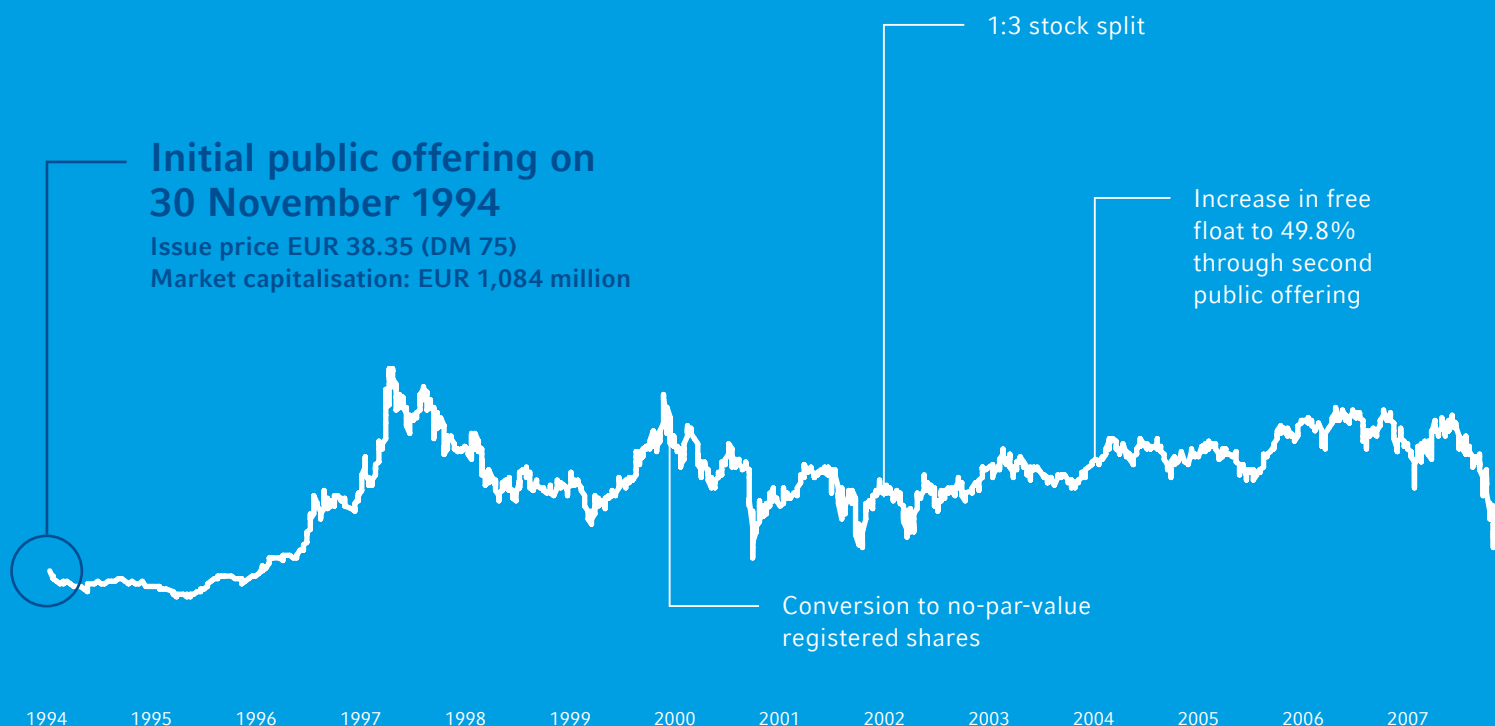
Private investors

50.2%

Talanx AG

# Share price performance 1994–2016<sup>1</sup>

<sup>1</sup> adjusted for 1:3 stock split





“In three of the eight years from 2001 to 2008 we were unable to pay a dividend owing to the volatility of our results. As the new Chief Executive Officer, I therefore considered it important to reduce volatility and restore a consistent, attractive dividend payment. These goals were successfully achieved in the years that followed.”

Chief Executive Officer  
Ulrich Wallin

## Market capitalisation



EUR 1.1 billion

1994

12% Annual  
total shareholder  
return incl.  
dividends

EUR 14.2 billion  
Value creation  
since IPO incl.  
dividends



EUR 12.4 billion

2016

All-time high: EUR 111.50

2 December 2015



## Dividend per share



EUR 1.60

2006



EUR 5.00

2016

# Our vision: Long-term success in a competitive business



Excellent solutions for our business partners constitute the basis for strengthening and further expanding our position as a leading, globally operating reinsurance group. They enable us to deliver long-term sustainable profitability and assert our position as one of the most profitable reinsurers worldwide.

We are passionate about reinsurance and chart our own course. We are quick, flexible and undogmatic and we strive for excellence in our actions. By generating innovative business opportunities from newly emerging risks we consistently expand the scope of our business. With our organisation geared to efficiency, we offer our business partners an attractive value proposition.

## 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

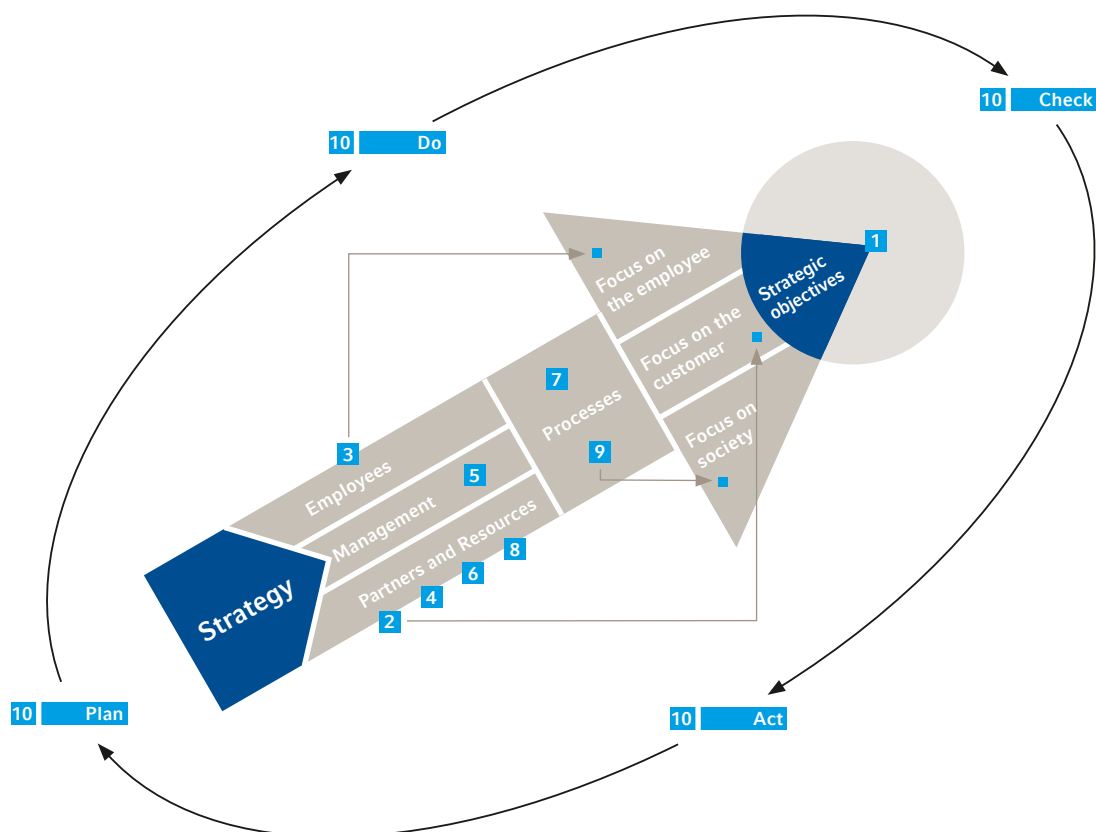
10

## We strive for Performance Excellence and continuous improvement

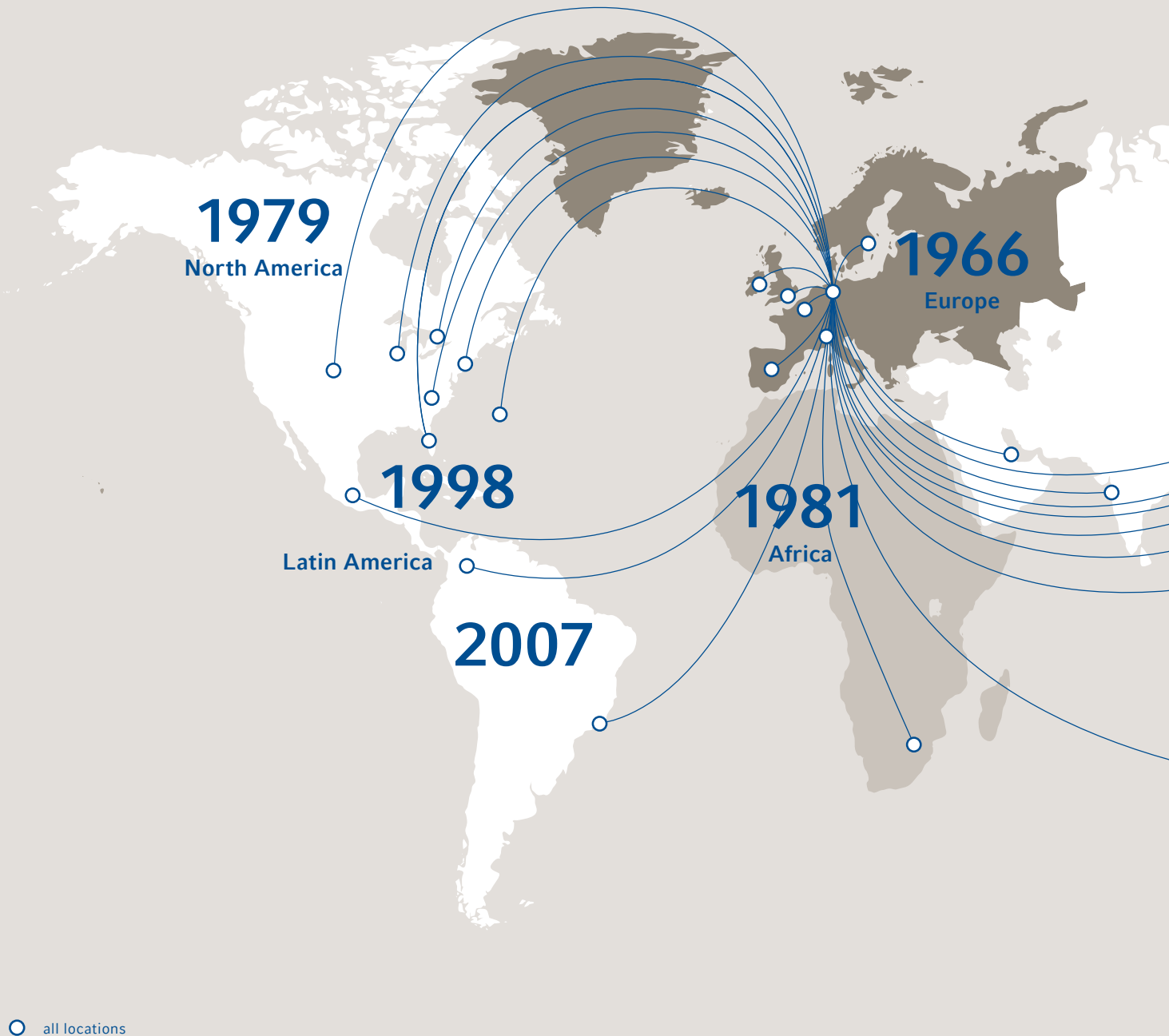
- Ensure the rigorous derivation of strategic objectives across all areas of the company

# Our strategy in practice

Our strategy encompasses ten strategic principles for ensuring the realisation of our vision “Long-term success in a competitive business” across business units. We implement the strategy in accordance with our holistic management system Performance Excellence 2.0. This forward-looking management system is based on the Excellence Model of the EFQM (European Foundation for Quality Management) and has a clear strategic focus: each organisational unit of the Hannover Re Group defines its own contribution to the Group strategy with the aid of the internal Strategy Guide and our Strategy Cockpit tool. In this way, we ensure that all initiatives and activities within Hannover Re are rigorously linked to the corporate strategy.



# From in-house reinsurer to global player



## 1966

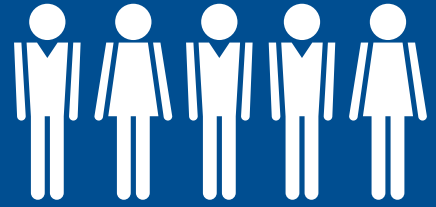
Establishment of “Aktien-gesellschaft für Transport- und Rückversicherung” (ATR) – our original company

## 50 years

**somewhat  
different**

Since 2005 the claim “somewhat different” has described our quick, flexible and undogmatic business approach. In 2016 we celebrated the company's 50<sup>th</sup> anniversary.

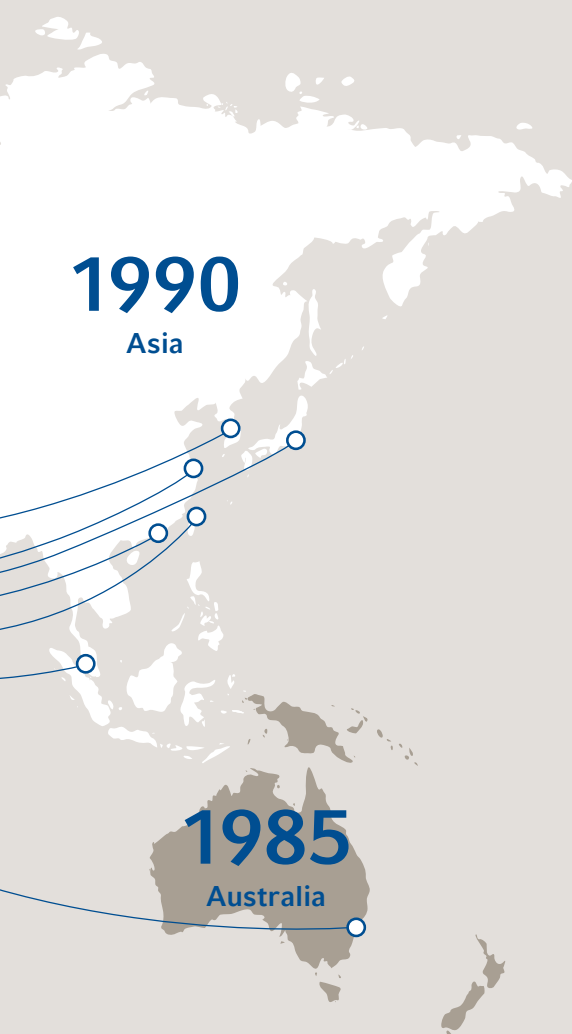
2,893  
employees



The Hannover Re Group currently employs 2,893 staff. While the underwriting of risks on a local basis is becoming more important, the corporate group continues to be steered centrally from Hannover.

1990

Asia



1985

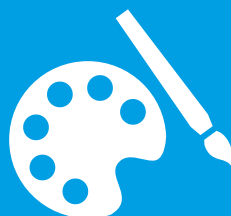
Australia

"We want to cherry-pick."

Wilhelm Zeller, Chief Executive Officer of Hannover Re, on strategies and market position (Finanz und Wirtschaft, 14.3.1998)

1991

25<sup>th</sup> anniversary: Hannover Re has grown profitably; in 1991 the Hannover Re Foundation is set up to benefit the Sprengel Museum in Hannover.



1996

Today's Group logo has been in use for 20 years.

*hannover* **re**<sup>®</sup>

# Combined management report



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# 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 rigorous risk management

With a gross premium volume of around EUR 16 billion, Hannover Re is the third-largest reinsurer in the world. 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 insurance 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 position.

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 certified internal capital model. 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

M01

Business group	Key data	Targets for 2016	Target attainment			
			2016	2015	2014	Ø 2014–2016 <sup>1</sup>
Group	Investment return <sup>2</sup>	≥ 2.9%	3.0%	3.5%	3.3%	3.3%
	Return on equity <sup>3</sup>	≥ 9.9%	13.7%	14.7%	14.7%	14.3%
	Growth in earnings per share (year-on-year comparison)	≥ 6.5%	1.8%	16.7%	10.1%	9.4%
	Value creation per share <sup>4</sup>	≥ 7.5%	18.6%	13.6%	34.4%	21.0%
Property & Casualty reinsurance	Gross premium growth	3–5% <sup>5</sup>	-0.2%	8.1%	1.2%	3.0%
	Combined ratio	≤ 96% <sup>6</sup>	93.7%	94.4%	94.7%	94.3%
	EBIT margin <sup>7</sup>	≥ 10%	16.8%	16.6%	17.0%	16.8%
	xRoCA <sup>8</sup>	≥ 2%	7.1%	7.4%	10.7%	8.4%
Life & Health reinsurance	Gross premium growth	5–7% <sup>9</sup>	-4.3%	9.5%	4.9%	3.2%
	Value of New Business (VNB) <sup>10</sup>	≥ EUR 220 million	EUR 893 million	EUR 543 million	EUR 448 million	–
	EBIT margin <sup>7</sup> Financial Solutions/ Longevity	≥ 2%	9.4%	11.0%	5.0%	8.6%
	EBIT margin <sup>7</sup> Mortality/Morbidity	≥ 6%	3.4%	3.6%	4.8%	3.9%
	xRoCA <sup>8</sup>	≥ 3%	3.5%	8.9%	7.3%	6.5%

<sup>1</sup> Average annual growth, otherwise weighted averages

<sup>2</sup> Excluding effects from ModCo derivatives

<sup>3</sup> After tax; target value: 900 basis points above the 5-year average return on 10-year German government bonds

<sup>4</sup> Growth in book value per share including dividend paid

<sup>5</sup> Average over the reinsurance cycle; at constant exchange rates

<sup>6</sup> Including major loss budget of EUR 825 million

<sup>7</sup> EBIT/net premium earned

<sup>8</sup> Excess return on allocated economic capital

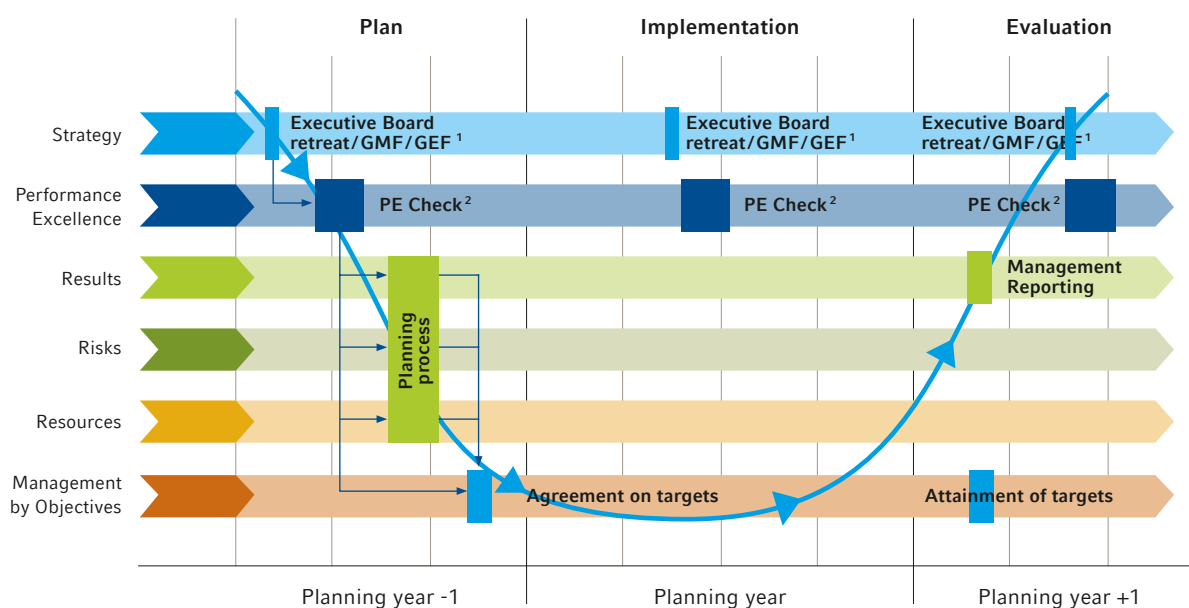
<sup>9</sup> Organic growth only; annual average growth (5 years); at constant exchange rates

<sup>10</sup> 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

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**

**M02**



<sup>1</sup> 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.

<sup>2</sup> 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 and 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 operating profit (EBIT) – (capital allocated × weighted cost of capital) = IVC

The adjusted operating profit (EBIT) 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

M03

in EUR million	2016		2015	
	IVC	xRoCA	IVC	xRoCA
Property and casualty reinsurance	355.7	7.1%	454.9	7.4%
Life and health reinsurance	102.7	3.5%	251.8	8.9%
Investments <sup>1</sup>	325.5	6.2%	(16.4)	-0.6%
<b>Group</b>	<b>783.7</b>	<b>5.9%</b>	<b>688.7</b>	<b>5.4%</b>

<sup>1</sup> Income above risk-free interest 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 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 play key roles. 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 the creation of its 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 to be approved in Europe. 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 (cf. here also the Opportunity report on page 95 et seq.).

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. In the financial year just ended we launched a competition under the name “Journey Re” in which teams composed of talented young people – so-called Millennials – at four different locations (Berlin, Boston, Dublin and Johannesburg) were tasked with developing new product and business ideas. The three most promising ideas were recognised with prize money of EUR 80,000. The fruits of this initiative are now being transformed into projects and will be refined into marketable commodities over the coming months. For further details please see the Opportunity report on page 95 et seq.

# The Hannover Re Group at a glance

## Property & Casualty reinsurance

Gross premium in EUR billion



6.8  $\xrightarrow{+6.2\% \text{ p.a.}}$  9.2  
2011 2016

## Life & Health reinsurance

Gross premium in EUR billion



5.3  $\xrightarrow{+6.3\% \text{ p.a.}}$  7.2  
2011 2016

## 10 times "Reinsurer of the Year"

Hannover Re was first crowned "Reinsurer of the Year" by the "The Review" in 1998.



## Growth in the balance sheet total

in EUR billion

5.3  
1996  
(DM 10.3 billion)



63.5  
2016

## Position on the world market

since 2009:  
third-largest reinsurer



## Research and development



Since 2010 Hannover Re has supported the Global Earthquake Model (GEM). GEM's mission is to improve public understanding and awareness of earthquake risks worldwide and to reduce the impacts of earthquakes on populations.

# Report on economic position

## Macroeconomic climate and industry-specific environment

- Persistently weak global economic growth
- Low interest rate environment remains a drag on the insurance industry
- Capital markets subject to volatility
- Losses from natural disasters exceed four-year average

### Macroeconomic climate

Looking at the year as a whole, the expansion of the global economy in 2016 once again fell short of the previous year at 3.1% (previous year: 3.2%). In the second half of the year the economy benefited from a tangible upward trend: the growth rate of 0.9% recorded in the third quarter was actually the strongest in two and a half years.

The pace of growth in the advanced economies remained moderate, even though manufacturing picked up appreciably from the summer onwards. Impetus derived from, among others, the United States, where inventory investments and exports increased sharply after a depressed first six months. In Japan total economic output rose slightly thanks to a boost from exports. The Eurozone economy continued to expand in 2016, sustaining its moderate growth of the past three years. It was stimulated by private and public consumption and in regional terms enjoyed broad-based support.

Growth in emerging markets was again stronger in 2016, although the economic challenges facing individual countries remain considerable. In China, India and other Southeast Asian nations output surged sharply higher over the six months of summer – driven in part by an expansionary economic policy. In Latin America it was above all Mexico and the Andean countries that picked up on this trend. Brazil, Argentina and Venezuela, on the other hand, remained mired in recession. Output in Russia stabilised again after a soft spring. Economic activity in Turkey suffered an outright collapse following the political turmoil of the summer.

#### United States

The US economy proved unable to maintain the previous year's pace of growth. Gross domestic product (GDP) rose by just 1.6% in 2016, a full percentage point less than in the year before. The principal factor here was a soft first six months. While private consumption was still lively, businesses in particular showed marked reticence with their investments in equipment. The trend reversal in the summer was crucially driven by the fact that companies began to rebuild their stocks after five quarters of reductions. What is more, exports started

to pick up again. Consumer prices showed another year-on-year gain (+1.3% as against +0.1% in the previous year) and unemployment fell by a further 0.4 percentage points to a comparatively low level of 4.9%, suggesting a fundamentally positive basic tendency in the United States.

#### Europe

The economic climate in the Eurozone maintained its moderate expansionary course: the growth rate fell slightly by 0.2 percentage points to 1.7%. The growth contribution stemming from foreign trade remained modestly negative in the year just ended at -0.2%. In regional terms, the economic expansion was broad-based, with all the nations in the single currency area managing to boost their economic output. Even countries currently facing an intensified struggle with economic difficulties – Portugal (+1.3%), Italy (+0.9%) and Greece (+0.4%) – charted a growth course. The UK economy expanded by 0.5% in the third quarter, notwithstanding the vote in favour of leaving the European Union. Not only private consumption and corporate investments but also exports surged appreciably, contributing to growth of 1.6% for the year.

The state of the labour market in Europe continued to improve. The average jobless rate decreased by 0.8 percentage points to 10.1%, with above all Greece and Spain still struggling to cope with high levels of unemployment. Consumer prices, which had been flat in the previous year, increased by 0.2%.

#### Germany

Having enjoyed an upswing over the past three years, the German economy stayed on its expansionary track in 2016. Growth increased again by a modest 0.2 percentage points year-on-year to reach 1.9%. In view of the political uncertainties in the international arena, the willingness of companies to invest softened appreciably over the six months of summer. By year-end, however, economic activity was clearly trending higher again. Low interest rates continued to stimulate spending by private households. The construction industry, in particular, was still operating at the limits of its capacity, with orders on hand standing at their highest level in 16 years at year-end. Private consumption once again played a pivotal role in the favourable economic development: it benefited from a healthy



jobs market, rising real wages and an oil price that was still moderate. German exports overcame a temporary period of softness to put on 2.5% over the year as a whole. Furthermore, industrial new orders from countries outside the Eurozone also surged vigorously in the final months of the year.

The state of the labour market was positive: according to figures published by the Federal Statistical Office, the average number of persons employed over the year increased by 1.0% to a new record high of 43.5 million. The jobless number fell to a historically low 1.76 million, equivalent to an adjusted unemployment rate of 4.1%.

The price trend was positive in 2016 despite the restraining effect of low energy prices. Consumer prices rose by an annual average of 0.5% (0.2%). In December they increased by as much as 1.7% compared to the same month of the previous year.

## Asia

After the rather moderate pace of expansion in 2015 growth was still sluggish as 2016 got underway, but it picked up perceptibly over the course of the year. In China, most notably, gross domestic product rallied strongly during the year thanks to an expansionary economic policy and by year-end it modestly surpassed the growth target set by the government. At 6.7%, however, the increase fell 0.2 percentage points short of the previous year.

In India the implementation of currency reform in late autumn severely hampered economic activity towards the end of the year. Despite this, the growth of 7.1% recorded by Asia's second-largest national economy was not far short of the previous year's good performance (+7.3%). Growth was similarly sustained in the other emerging nations of Southeast Asia: the four economies of Indonesia, Thailand, Malaysia and the Philippines expanded by an average of 4.8%.

Japan was able to boost its exports to the Asian region in the second half of the year despite a strengthening yen. Private and public consumption as well as gross investments remained flat, however, as a consequence of which the country's economy continued to show only slow growth of 1.0% over the year as a whole (+1.2%).

## Capital markets

The investment environment in the period under review was once again challenging and notable for a high degree of uncertainty. Even as the year got underway China unnerved financial markets by devaluing its national currency; this prompted concerns about the state of its economy. The fall in commodity prices as a consequence of excessive supply capacities, global growth worries and a strong US dollar impacted emerging economies first and foremost, but also had sharply negative implications for Western equity markets. The European Central Bank (ECB) and the Bank of Japan responded by extending their expansionary policy, and the pause in the cycle of interest rate hikes announced by the US Federal Reserve (Fed) in the fourth quarter unleashed a rally on stock markets.

The general mood of uncertainty prevailing on financial markets was further exacerbated by the referendum held among the UK population in the middle of the year on leaving the European Union ("Brexit"). From the end of June onwards the doubts surrounding the outcome of this vote gave way to political and legal uncertainties in relation to the concrete procedure for leaving the EU. This situation led to protracted volatility in the United Kingdom, where further sharp declines in yields were observed across all maturity segments until the beginning of the fourth quarter as a consequence of support buying by the Bank of England. German and US government bonds, however, similarly saw clear decreases in yields until the same point in the year. Yet as the fourth quarter began a trend reversal towards rising yields emerged – and subsequently gained further momentum following Donald Trump's victory in the US presidential election in early November. Looking at the entire year, US Treasury securities showed increases in yields across all maturity bands. When it came to the euro and pound sterling, on the other hand – despite the upticks in yields in the fourth quarter –, further considerable declines in what was already a low yield level were seen over the year as a whole. German government bonds at times delivered clearly negative returns almost into the ten-year maturity segment.

Uncertainty also left its mark within the year on the valuation of markets for corporate bonds – primarily at the start of the year in emerging economies – and initially prompted sharp rises in risk premiums. Over the course of the year, however, these increasingly retreated again across all rating classes – sometimes falling appreciably below their respective level in the previous year.

The policies pursued by central banks in our main currency areas varied. Following its cut to 0.05% in 2014, the European Central Bank (ECB) further trimmed the key interest rate for the Eurozone at the beginning of the current reporting period to the historically low level of 0.00%. The Bank of England – which had left the prime rate for pound sterling untouched since 2009 – followed suit by reducing it from 0.5% to 0.25% in response to the Brexit vote. The Fed, on the other hand, raised the base rate for the US dollar slightly from an average of 0.38% to 0.63%.

Stock markets, which we had begun to look at more closely again in the context of our move to rebuild an equity portfolio, climbed to new – in some cases – historic highs in the course of the year. The US market, in particular, booked appreciable price gains over the year. Most European indices, on the other hand, found themselves treading water year-on-year, although the DAX 30 performed relatively well with a gain of some 7%. Markets in emerging economies also delivered a pleasing performance, especially bearing in mind their slump at the start of the year. European equity markets were driven above all by the continued expansionary monetary policy of the ECB and the search by investors for high-return investment opportunities. With this in mind, though, the high price levels were ultimately only partially justified by fundamental metrics. All in all, stock markets once again proved to be broadly robust in the face of crisis warnings. While this is a cause for satisfaction, it can also entail the risk of bubbles forming. It was only growing concerns about the strength of the Chinese economy following a currency devaluation in combination with slumping commodity prices that prompted a marked downturn on stock markets at the beginning of the period under review.

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 particularly significant considerations. The ongoing risk of terrorism is another factor that needs to be monitored, even though capital markets have hitherto responded to this in robust fashion.

The euro declined again against the US dollar over the course of the year from USD 1.08 to USD 1.05. It also suffered some modest losses against the Australian dollar. The pound sterling, on the other hand, fell sharply against the euro as a consequence of the Brexit vote, with the euro climbing from GBP 0.74 to GBP 0.86.

For more detailed remarks on the development of Hannover Re's investments please see the "Investments" section on page 51 et seq.

## Industry-specific environment

For the international (re)insurance industry the omens were virtually unchanged: the general environment continued to be highly challenging in 2016. In view of the protracted low level of interest rates, the focus remained firmly on preserving the value of investments and generating stable returns.

The year under review was also one of new developments on the regulatory side for the insurance industry. In Europe harmonised insurance supervisory law was successfully implemented in the form of Solvency II. Reflecting an integrated approach to risk, these refined solvency requirements for insurers put in place new measurement principles for assets and liabilities, which are to be recognised at their fair values in future. In China, too, a new risk-based solvency regime (C-ROSS) came into effect at the beginning of the year; it is intended to promote domestic reinsurance placement. The planned launch of a new solvency system in South Africa, known as Solvency Assessment and Management (SAM), was postponed until mid-2017.

The Indian insurance market similarly witnessed some regulatory adjustments: at the end of 2016, for example, the local insurance regulator gave its approval to a small number of foreign reinsurers to establish branches, thereby opening up the growing Indian reinsurance market to international players.

The digital revolution was once again a major preoccupation for the insurance industry in 2016. This can be attributed in part to the cost pressure on primary insurers, which was driven above all by the protracted low level of interest rates and by the competitive environment. For insurers, then, the focus was not only on the development of new products, the optimisation of business processes or innovative impetus in the areas of customer care and acquisition; there was also an industry-wide trend towards participation in and cooperation with start-ups and insurtechs. The (re)insurance industry also leveraged digitisation in the year just ended to optimise its point-of-sale systems and structure internal value-added chains even more efficiently. This trend looks set to continue in the coming years.

In property and casualty reinsurance the pressure of competition remained high in 2016. This was due in part to the healthy capital resources enjoyed by primary insurers, which enabled them to carry high retentions. Another factor was the continued inflow of capital from the ILS sector into the reinsurance market, as a consequence of which the supply of capacity in the market comfortably outstripped demand – hence again putting prices and conditions under pressure in 2016. The burden of major losses was thoroughly moderate in the year under review, as it had been in prior years. However, a number of severe earthquakes and windstorm events led to the heaviest losses from natural catastrophe events in four years.

Against the backdrop of advancing digitisation, demand increased in the year under review for covers to protect against cyber risks. While the vast bulk of the worldwide insurance premium was generated in the United States, growing interest could also be discerned in Europe as the year progressed.

The sustained low interest rate environment similarly had implications for life and health reinsurance in the area of traditional life insurance products, which have now not only lost a considerable part of their appeal but have also to some extent been supplanted by new policies which have been adapted to the changed interest rate situation. Furthermore, in the context of the new Solvency II regulations, many European insurers were compelled to grapple with increased capital requirements – primarily in relation to longevity business. As the year progressed,

therefore, a growing demand for reinsurance was observed. This is also true of the Eastern European market, which is similarly coming under more exacting regulatory requirements.

Demographic change is driving sustained demand for old-age provision products – on the reinsurance as well as the insurance side. Lifestyle products, which offer risk protection tailored to the policyholder's specific life situation, also played a more prominent role. Policies under which the premium is linked to the insured's health-related behaviour enjoyed a particularly brisk surge in demand in the year under review. 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

- New record net income generated
- Very good profit in property and casualty reinsurance
- Solid result in life and health reinsurance
- Very healthy investment income despite challenging conditions
- Reduced return on equity of 13.7% highly satisfactory

We are thoroughly satisfied with the development of business in the 2016 financial year. With Group net income of EUR 1,171.2 million we actually surpassed the anticipated level of at least EUR 950 million. We thus improved by a further 1.8% on the record result of the previous year. This development is particularly gratifying because market conditions for reinsurers remain extremely challenging and the low level of interest rates is increasingly restricting our potential returns. The year-end result was once again supported by a burden of major losses that came in below the envisaged budget.

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 35 to 52.

### Property & Casualty reinsurance

Market conditions in property and casualty reinsurance continued to be fiercely competitive. Reinsurance capacity substantially exceeded demand. Furthermore, additional capacities from the insurance-linked securities (ILS) market put prices and conditions under sustained pressure. Against this backdrop we wrote our business highly selectively, causing gross premium – as anticipated – to contract slightly. It fell by 1.4% as at 31 December 2016 to EUR 9.2 billion (previous year: EUR 9.3 billion). At constant exchange rates the premium volume would have remained stable.

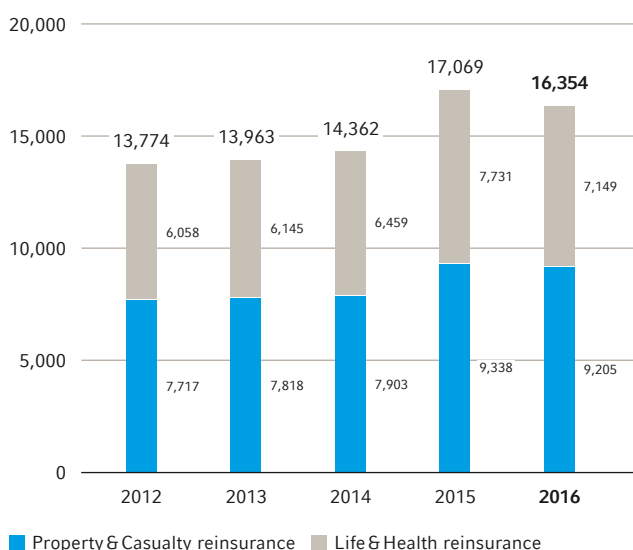
Investment income from assets under own management in property and casualty reinsurance declined by 5.2% year-on-year to EUR 876.9 million (EUR 924.8 million). We are nevertheless highly satisfied with this performance. Reflecting the protracted low interest rate environment, ordinary income contracted in line with our expectations by 5.1% to EUR 899.3 million (EUR 947.4 million).

All in all, the results in property and casualty reinsurance were thoroughly satisfactory. The underwriting result improved again on the already exceptionally positive level of the previous year to reach EUR 479.1 million (EUR 432.2 million). Expenditure on large losses was higher than in the previous year at EUR 626.6 million (EUR 572.9 million), but still within the expected bounds. The combined ratio of 93.7% (94.4%) came in well below our targeted maximum of 96%. The operating profit (EBIT) as at 31 December 2016 remained stable at EUR 1,340.3 million (EUR 1,341.3 million). Reflecting the very good development of our business, the EBIT margin of 16.8% (16.6%) once again beat our minimum target of 10%. Group net income came in at a pleasing EUR 949.9 million (EUR 914.7 million) and thereby surpassed the record level of the comparable period.

## Gross premium by business group

in EUR million

M04



## Life & Health reinsurance

Life and health reinsurance business delivered another sizeable contribution to total Group net income in the reporting period just ended. The positive development and stability clearly demonstrated the underlying profitability of the portfolio. Bearing in mind that the sustained profitability of what is in some cases very long-term business does not always begin immediately when a treaty is written, a multi-year perspective is essential in order to make well-founded assessments. Non-recurring effects – both positive and negative – can lead to volatility in the results.

The result for the year under review is largely in line with our expectations for the overall profitability of our life business. The operating profit for 2015 had, however, been boosted by a one-time positive effect of EUR 39 million due to the early termination of a large contract, and to this extent the result in the year under review came in lower.

Gross premium decreased by 7.5% and amounted to EUR 7.1 billion (EUR 7.7 billion). Adjusted for exchange rate effects, this is equivalent to a decline of 4.3%. The decisive factor here was the extraordinary premium growth in 2015. The Value of New Business totalled EUR 893 million and thus beat the targeted level of EUR 220 million.

Our investment income declined to EUR 638.9 million (EUR 709.2 million) in the financial year just ended. This decrease is in line with our expectations. Of the total investment income, EUR 330.8 million (EUR 334.3 million) was attributable to assets under own management and the remaining EUR 308.1 million (EUR 374.9 million) derived from securities deposited with ceding companies.

As reported at the outset, the operating profit (EBIT) fell short of the level in the previous year, which had been boosted by a positive one-off effect. We are nevertheless satisfied with the generated result of EUR 343.3 million (EUR 405.1 million). The EBIT margins achieved within the individual reporting categories were as follows: in mortality and morbidity business we missed the 6% target with an EBIT margin of 3.4%; longevity business reached its stated target of 2% with an EBIT margin of 2.2%; the EBIT margin for financial solutions business amounted to 18.5%, thereby comfortably beating the minimum target of 2%. All in all, life and health reinsurance business thus contributed an amount of EUR 252.9 million (EUR 289.6 million) to Group net income.

## Investments

Given the sustained low interest rate environment and in some instances even further reductions in rates, we are again highly satisfied with the development of our investments as at 31 December 2016. The portfolio of investments under own management stood at EUR 41.8 billion and was thus significantly higher than the comparable level at the end of the previous year (31 December 2015: EUR 39.3 billion). The increase was driven in large measure by positive exchange rate effects – especially associated with the strong US dollar – and higher hidden reserves in the areas of listed equities and private equity, although the primary factor here was a gratifyingly positive operating cash flow.

With interest rates remaining on a low level, ordinary investment income excluding interest on funds withheld and contract deposits fell short of the comparable period at EUR 1,162.0 million (EUR 1,253.4 million), but was exactly in line with our expectations for the year under review.

Net realised gains on investments as at 31 December 2016 comfortably exceeded the previous year's figure at EUR 206.3 million (EUR 135.8 million). Write-downs increased in the year under review to EUR 76.3 million (EUR 38.7 million). They derived from scheduled depreciation taken on real estate as well as impairments due to temporary price losses on equity markets following the Brexit referendum. Income from assets under own management retreated as anticipated to EUR 1,218.3 million (EUR 1,270.1 million). The resulting annual return (excluding ModCo derivatives) amounted to 3.0% and thus beat the 2.9% target. The figure for the previous year had been 3.5%. Investment income including interest on funds withheld and contract deposits contracted to EUR 1,550.4 million (EUR 1,665.1 million), a decline of 6.9% relative to 2015. Interest on funds withheld and contract deposits totalled EUR 332.1 million (EUR 395.0 million).

## Total result

The gross premium in our total business decreased by 4.2% as at 31 December 2016 to EUR 16.4 billion (EUR 17.1 billion). At constant exchange rates the decline would have been 2.1%. This is in line with our expectation of a stable or slightly lower business volume. The level of retained premium climbed to 89.3% (87.0%). Net premium earned consequently fell by just 1.2% to EUR 14.4 billion (EUR 14.6 billion). At unchanged exchange rates growth of 1.0% would have been booked.

Despite the elimination of a non-recurring effect from the previous year in an amount of EUR 39 million, we generated an operating profit (EBIT) of EUR 1,689.3 million in the year under review. This was only narrowly below the level of the record result posted in 2015 (EUR 1,755.2 million). Group net income improved on the previous year to EUR 1,171.2 million (EUR 1,150.7 million), thereby clearly surpassing our guidance for Group net income of at least EUR 950 million. Earnings per share for the Hannover Re Group amounted to EUR 9.71 (EUR 9.54).

The equity position remains highly robust: the equity attributable to shareholders of Hannover Re increased to EUR 9.0 billion (EUR 8.1 billion) as at 31 December 2016. We nevertheless generated another pleasing return on equity of 13.7% (14.7%). The book value per share reached EUR 74.61, beating the previous year's record high (EUR 66.90). All in all, Hannover Re largely achieved the forecasts provided for the 2016 financial year as shown in the following table "Business development in the year under review".

The total policyholders' surplus, consisting of shareholders' equity, non-controlling interests and hybrid capital, amounted to EUR 11.2 billion (EUR 10.3 billion) as at 31 December 2016.

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 230% as at 31 December 2016 (30 September 2015: 221%).

### Business development in the year under review

M05

	Forecast 2016	Target attainment 2016
Gross premium growth (Group)	stable to slightly lower <sup>1</sup>	-2.1% at constant exchange rates -4.2% not adjusted for currency effects
Gross premium growth for Property & Casualty reinsurance	slightly lower <sup>1</sup>	-0.2% at constant exchange rates -1.4% not adjusted for currency effects
Gross premium growth for Life & Health reinsurance	slight increase, stable <sup>1, 2</sup>	-4.3% at constant exchange rates -7.5% not adjusted for currency effects
Return on investment <sup>3</sup>	~ 2.9%	3.0%
Group net income	~ EUR 950 million <sup>4</sup>	EUR 1,171.2 million

<sup>1</sup> At constant exchange rates

<sup>2</sup> Organic growth only

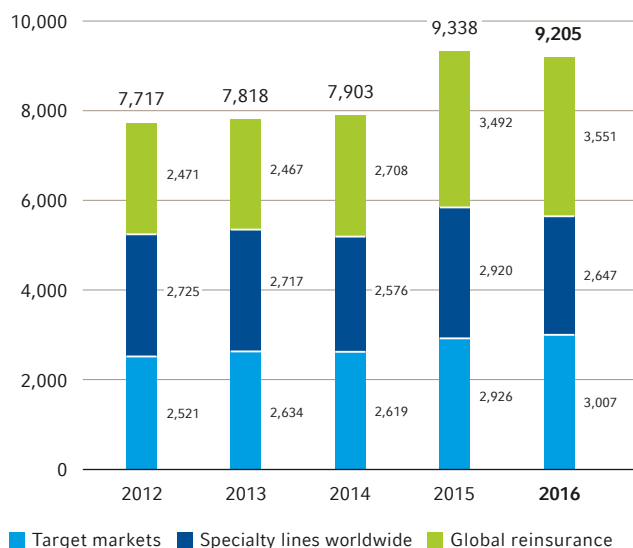
<sup>3</sup> Excluding ModCo derivatives

<sup>4</sup> Assuming stable capital markets and/or major loss expenditure in 2016 that does not exceed EUR 825 million

## Property & Casualty reinsurance at a glance

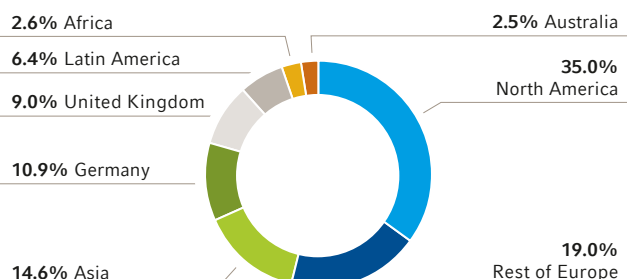
**Gross written premium in P&C reinsurance**  
in EUR million

M06



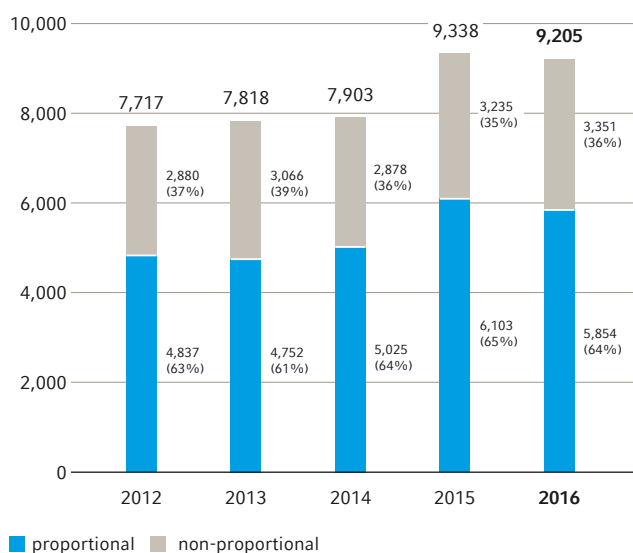
**Geographical breakdown of gross written premium in 2016**

M07



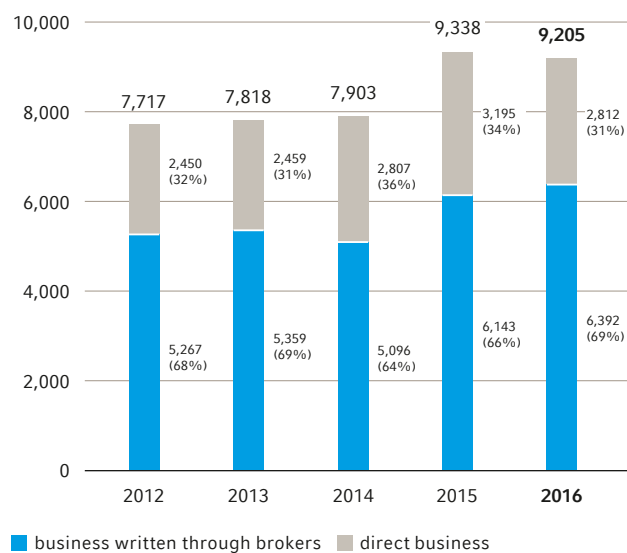
**Breakdown of proportional and non-proportional treaties by volume**  
in % and in EUR million

M08



**Breakdown into business written through brokers and direct business**  
in % and in EUR million

M09





## Overall assessment of the business position

Hannover Re is highly satisfied with the development of business in 2016. The company achieved its targets for important key indicators such as the return on investment, Group net income, return on equity as well as the EBIT margin and combined ratio in property and casualty reinsurance. This is all the more pleasing because the business environment for reinsurers remained challenging. The generated investment income and return on investment were very satisfactory despite

the continued low level of interest rates. Group net income again surpassed EUR 1 billion. The company's shareholders' equity showed a thoroughly gratifying increase, causing the total policyholders' surplus to climb to a new record high. At the time of preparing the management report, the business position of the Hannover Re Group remains very good and its financial strength has been further reinforced.

## 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 stable on a currency-adjusted basis
- Large loss expenditure of EUR 627 million lower than budgeted level of EUR 825 million
- Very pleasing combined ratio of 93.7%
- Group net income rises by almost 4%

Accounting for 56% 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".

Given the continued absence of market-changing large losses, intense competition once again shaped the development of business in the year under review. Primary insurers remain in a position to carry high retentions thanks to their healthy capital resources. At the same time, capital is increasingly flowing into the reinsurance market from the steadily expanding ILS sector (including catastrophe bonds and collateralised reinsurance) owing to the lack of higher-yield investment alternatives. As a result, the available capacity in the reinsurance market continues to clearly outstrip demand.

These factors again cast a shadow over the treaty renewals as at 1 January 2016. Even though the price decline was considerable in some markets, we were still able to preserve healthy profitability for our portfolio thanks to our broad-based diversification. Business with agricultural risks was relatively divorced from the soft property and casualty reinsurance market. Aviation and marine business, on the other hand, saw sharp rate declines, prompting us to scale back our premium volume here. In the further rounds of renewals during the year the rate trend

largely continued along these lines, although indications of a stabilisation in reinsurance prices did emerge in individual lines and markets, including for example in North America.

In this challenging environment it was particularly important for Hannover Re to systematically pursue its margin-oriented underwriting. It remains the case that we expand our business only in areas where the margins are commensurate with the risks. On the other hand, we reduce our involvement in regions and lines where the prices do not meet our profitability standards. We focused heavily on our existing business, and were thus again able in the year under review to benefit from our long-standing customer relationships and our position as one of the world's leading and most financially robust reinsurance groups.

Gross premium contracted as expected in the year under review by a modest 1.4% to EUR 9.2 billion (previous year: EUR 9.3 billion); at constant exchange rates it would have remained stable. This is in line with our forecast of a slight decline in the currency-adjusted gross premium volume. The level of retained premium retreated to 88.5% (89.3%). Net premium earned fell by 1.4% to EUR 8.0 billion (EUR 8.1 billion); adjusted for exchange rate effects, it would have been unchanged.

The most notable large losses in the 2016 financial year were a number of major earthquakes and windstorm events; various man-made losses were also incurred. All in all, however, the burden of losses for our account was in line with our expectations. The most expensive event for our company was the devastating forest fires in the Canadian province of Alberta, with a net loss of EUR 127.9 million. After several years of rather benign storm seasons in the United States and the Caribbean, the year under review brought a costly event in the shape of Hurricane Matthew: the resulting net strain for Hannover Re amounted to EUR 70.3 million. The earthquakes in Ecuador and New Zealand similarly gave rise to significant losses. Total net major loss expenditure for the year under review amounted to EUR 626.6 million (EUR 572.9 million). While this figure is higher than in the previous year, it is still below our budget of EUR 825 million. For a detailed list of our catastrophe and large losses please see page 85. The underwriting result climbed by 10.8% to EUR 479.1 million (EUR 432.2 million). The combined ratio for the year under review of 93.7% (94.4%) was clearly better than our targeted mark of 96%. Aside from the

favourable development of the technical account, this was also partly due to the reversal of reserves from prior years that were no longer required.

Investment income for the Property & Casualty reinsurance business group contracted as expected by 4.7% to EUR 900.9 million (EUR 945.0 million). The operating profit (EBIT) was once again very pleasing at EUR 1,340.3 million; it thus fell fractionally short of the record level in the comparable period (EUR 1,341.3 million). The EBIT margin climbed from 16.6% to 16.8%, hence clearly beating our minimum target of 10%. Group net income came in at EUR 949.9 million, surpassing the previous year's result of EUR 914.7 million by 3.8%. Earnings per share for this business group amounted to EUR 7.88 (EUR 7.58).

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	2016	+ / - previous year	2015	2014	2013	2012 <sup>1</sup>
Gross written premium	9,204.6	-1.4%	9,338.0	7,903.4	7,817.9	7,717.5
Net premium earned	7,985.0	-1.4%	8,099.7	7,011.3	6,866.3	6,854.0
Underwriting result	479.1	+10.8%	432.2	351.5	335.5	272.2
Net investment income	900.9	-4.7%	945.0	843.6	781.2	944.5
Operating result (EBIT)	1,340.3	-0.1%	1,341.3	1,190.8	1,061.0	1,091.4
Group net income	949.9	+3.8%	914.7	829.1	807.7	685.6
Earnings per share in EUR	7.88	+3.8%	7.58	6.88	6.70	5.68
EBIT margin <sup>2</sup>	16.8%		16.6%	17.0%	15.5%	15.9%
Retention	88.5%		89.3%	90.6%	89.9%	90.2%
Combined ratio <sup>3</sup>	93.7%		94.4%	94.7%	94.9%	95.8%

<sup>1</sup> Adjusted pursuant to IAS 8

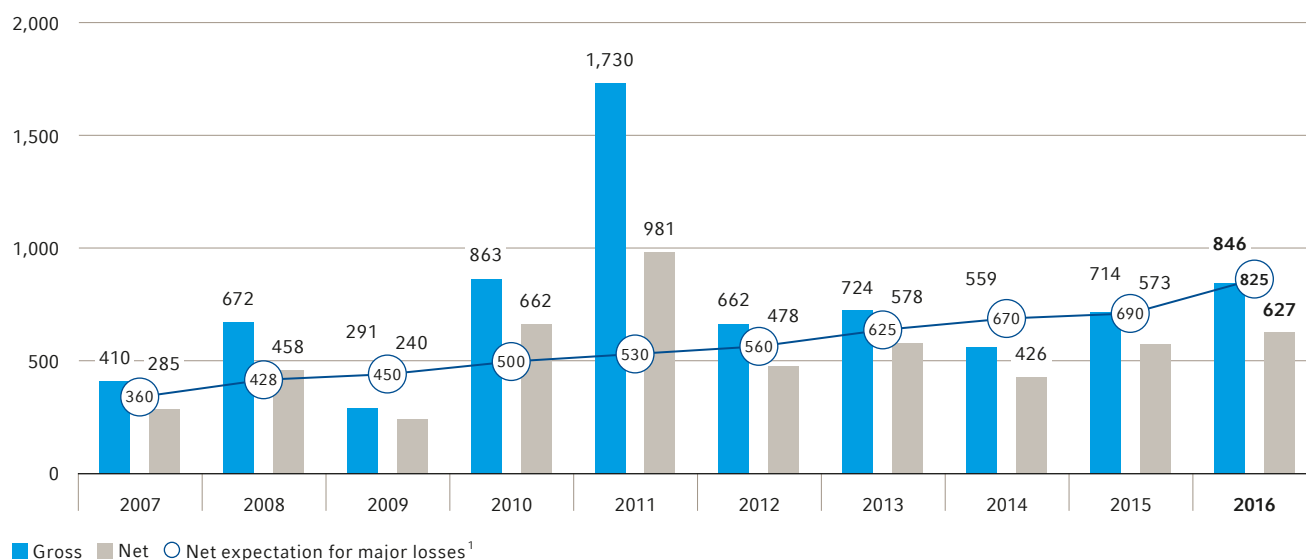
<sup>2</sup> Operating result (EBIT)/net premium earned

<sup>3</sup> Including expenses on funds withheld and contract deposits



**Property & Casualty reinsurance: Major loss trend<sup>1</sup>**  
in EUR million

M11



<sup>1</sup> 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 2016**

M12

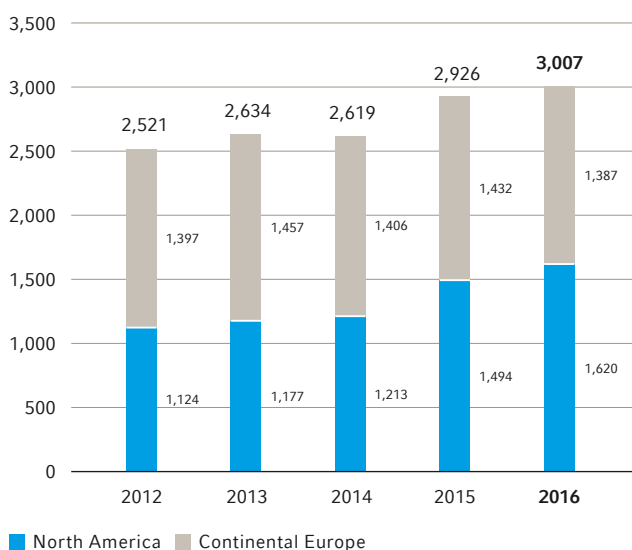
	Gross premium 2016 in EUR million	Change in gross premium relative to previous year	Gross premium 2015 in EUR million	EBIT in EUR million	Combined ratio	Maximum tolerable combined ratio (MtCR)
<b>Target markets</b>	<b>3,007.0</b>	<b>+2.8%</b>	<b>2,925.5</b>	<b>598.2</b>	<b>92.5%</b>	<b>95.4%</b>
North America	1,619.7	+8.4%	1,493.8	393.3	91.0%	96.9%
Continental Europe	1,387.3	-3.1%	1,431.7	204.9	94.3%	93.8%
<b>Specialty lines worldwide</b>	<b>2,646.6</b>	<b>-9.4%</b>	<b>2,920.4</b>	<b>447.8</b>	<b>90.9%</b>	<b>96.7%</b>
Marine	277.5	-6.6%	297.1	138.1	38.5%	93.3%
Aviation	278.7	-26.1%	377.3	108.9	72.8%	99.4%
Credit, surety and political risks	613.5	+1.3%	605.6	8.3	104.9%	94.9%
UK, Ireland, London market and direct business	505.6	-2.7%	519.7	97.5	95.6%	97.6%
Facultative reinsurance	971.4	-13.3%	1,120.7	95.0	95.6%	97.2%
<b>Global reinsurance</b>	<b>3,550.9</b>	<b>+1.7%</b>	<b>3,492.1</b>	<b>294.3</b>	<b>97.1%</b>	<b>95.4%</b>
Worldwide treaty reinsurance	1,885.0	+4.1%	1,810.4	65.5	103.9%	96.1%
Catastrophe XL (Cat XL)	357.2	-4.7%	374.9	154.9	55.9%	79.0%
Structured reinsurance and insurance-linked securities	1,308.7	+0.1%	1,306.8	73.9	97.3%	98.9%

## Target markets

Hannover Re classifies North America and Continental Europe as target markets. The premium volume here increased by 2.8% to EUR 3,007.0 million (EUR 2,925.5 million). Growth lived up to our expectations. The combined ratio improved substantially from 99.0% to 92.5%. The operating profit (EBIT) consequently rose to EUR 598.2 million (EUR 445.1 million).

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

M13



## 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.

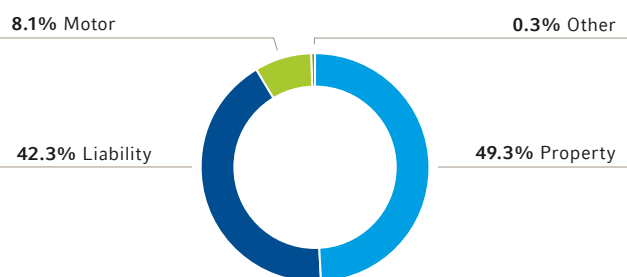
Even though the US economy paused for breath in 2016 and recorded slower growth than in the comparable year, our clients – primary insurers – booked an increase in premium volume, especially in the loss-prone lines of workers' compensation and motor business, for which prices improved. The general rate trend, however, remained negative and ceding companies additionally struggled to cope with low investment income. Some market players are no longer able to generate their target return on equity. Against this backdrop, the level of reserves is dropping and at some companies – particularly those with high exposures to the commercial motor line – there is already a need to set aside additional reserves.

Overall, modest reductions in rates were observed; towards the end of the financial year a trend towards stability could be discerned. On the reinsurance side conditions in US casualty business remained broadly stable and an increase in premium was recorded. Non-proportional property business saw slight rate reductions – especially under profitable, loss-free programmes –, but conditions held up rather well.

We are a valued and respected partner in North America thanks to our long-standing experience and robust financial strength. This has been borne out for more than ten years now by the findings of the "Flaspöhler Broker Survey", in which Hannover Re placed first in the "Best Overall Reinsurer" category. In the year under review we added a very good second place in the corresponding "Cedant Survey". Particularly bearing in mind that in North America we only operate through brokers, this is a pleasing testimony to our efforts. We further enlarged our customer base in the year under review.

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

M14



As far as large losses in North America are concerned, mention should be made of two natural disasters: the loss situation in Canada was dominated by the forest fires in the region around Fort McMurray. Hurricane Matthew caused considerable damage in the Bahamas and on the East Coast of the United States between Florida and South Carolina. Details of these losses are provided in the section entitled "Natural catastrophe business" on page 45.

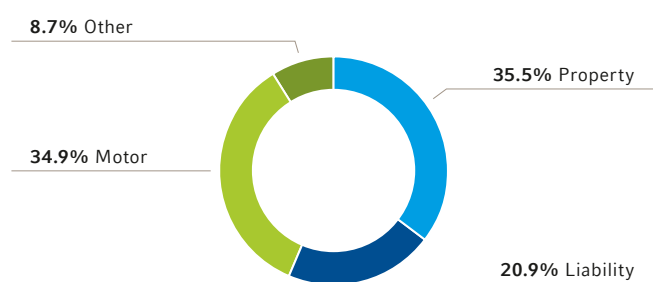
Positive price adjustments are evident in both the United States and in Canada. Particularly under loss-impacted programmes and in Canada, we benefited from newly purchased reinstatement covers. In general liability business the rate situation has stabilised somewhat; in the professional indemnity lines we successfully pushed through modest price increases to a limited extent. We are seeing stronger demand for covers in the area of cyber risks, to which we are responding with appropriate capacities.

After exceptionally strong growth in the comparable year, the premium volume for our business in North America rose by a further 8.4% to EUR 1,619.7 million (EUR 1,493.8 million). Mid-single-digit percentage growth was similarly booked after adjustment for exchange rate effects. The combined ratio was lower than in the previous year at a very pleasing 91.0% (99.6%). The operating profit (EBIT) climbed to EUR 393.3 million (EUR 242.0 million), a result with which we are thoroughly satisfied.

## 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 1,387.3 million (EUR 1,431.7 million). The combined ratio improved to 94.3% (98.4%). The operating profit (EBIT) nudged higher to EUR 204.9 million (EUR 203.2 million).

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



## Germany

The German market – the second-largest in the world for property and casualty reinsurance – 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 also remains under considerable competitive pressure, especially in commercial and industrial business. New competitors with additional capacities entered the market despite protracted insufficient profitability, as a consequence of which the rehabilitation efforts undertaken by established providers proved partially ineffective.

Owing to the intensely competitive environment, there was no easing in the pressure on conditions in industrial property insurance. Only in general liability business and the engineering insurance lines could adequate rates be obtained. The development of the industrial fire line was once again unsatisfactory on account of heavy losses.

The situation in retail business was also strained. The largest line – motor insurance – offered little scope to cover the cost of capital in view of the higher average claim cost. Homeowners’ comprehensive insurance failed to move back into the black despite the steps taken in recent years to restore business to profitability. The positive results booked in the general liability, householders’ and accident lines nevertheless ensured that – taken together and allowing for run-off profits – all lines of property and casualty insurance closed with a combined ratio of less than 100%.

On the reinsurance side the German market showed significantly greater stability. Scarcely any sharp upward or downward deviations were observed here. Improved conditions were obtained under proportional treaties in various fire and fire loss of profits programmes. Premium income in proportional motor insurance showed modest growth, driven primarily by higher-value motor vehicle equipment – which is pushing up the costs associated with both collision damage and the rapidly rising theft losses.

Two developments are taking on growing significance in the German market: in the first place, the trend towards greater protection against cyber attacks in commercial and industrial insurance lines and, secondly, the technological advances being made in motor insurance. The proliferation of (partially) self-driving vehicles is expected to bring a reduction in claims expenditure and, as a result, a drop in motor premiums. With an eye to the roll-out of telematics tariffs, E+S Rück has entered into a cooperation arrangement with a mobile telephony provider in order to offer its customers support in this new subsegment.

Losses from natural catastrophes were lower in the year under review than in the previous year. From a long-term perspective, however, it is apparent that the alternation between years of light and heavy losses is shortening in duration. Localised events, in particular, caused significant losses in the 2016 financial year. Storms alone cost insurers some EUR 2 billion in 2016, for example, although this amount was around 20% lower than the average of recent years. Costing around EUR 1 billion, half of the losses were caused by the heavy rain-storm events Elvira and Friederike.

All in all, we are satisfied with the development of our German portfolio. Premium income for the year under review showed moderate growth; we had anticipated a slight contraction in premium volume in our guidance.

## Rest of Continental Europe

There was no change in the fierce competition prevailing on European markets; this was especially true of most nature markets such as France and Northern Europe. Along with challenging economic circumstances, surplus capacities continued to adversely impact the insurance industry; the Northern European and French markets consequently saw further rate reductions and deteriorations in conditions. We nevertheless preserved our market share in France by expanding some existing customer relationships and writing more business in less competitive lines. In long-tail liability business, above all in the motor sector, we are continuing to see a challenging environment and participate only selectively.

We successfully asserted our leading position in builder’s risk insurance in France. Another focus of our activities continues to be the accident line, in which we have enlarged our premium volume over recent years.

Developments in the Netherlands, where we expanded our portfolio across all lines of business, were pleasing.

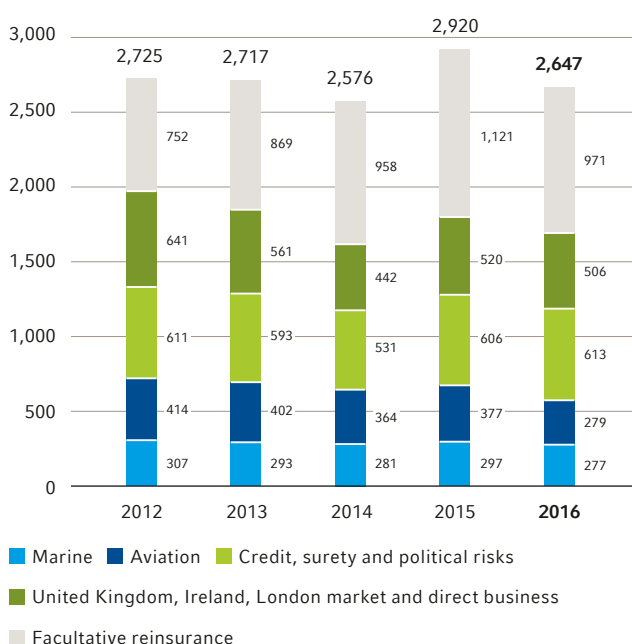
Overall, despite fierce competition in Central and Eastern European markets, growth rates here were above the European average. Over the medium to long term Hannover Re anticipates further growth in the premium volume from these markets. Given the intensely competitive climate, the reinsurance market for the most part saw price reductions. This did not apply, however, to motor business in Poland and Hungary, where rates climbed on the back of increased loss expectancies. On the whole, we obtained rates and conditions that were broadly commensurate with the risks for the region of Central and Eastern Europe in the year under review, hence enabling us – on the back of stable premium volume – to generate satisfactory results. On the claims side the region was impacted by 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 2,646.6 million (EUR 2,920.3 million). The combined ratio was stable at 90.9%. The operating profit (EBIT) for specialty lines contracted to EUR 447.8 million (EUR 518.5 million), in part also due to reduced investment income.

**Property & Casualty reinsurance: Breakdown of gross written premium in worldwide specialty lines** M16  
in EUR million



### Marine

As anticipated, the rate decline in marine insurance was sustained in 2016. Underlying factors such as the low oil price, faltering global economy and surplus capacities in the market for the transportation of freight and cargo have left their mark on our customers. In the face of falling prices for commodities and other goods, the premium volume in the market contracted significantly for the first time in years. Combined with a slight increase in the supply of capacity, this has further stepped up the pressure on original rates in both offshore energy and marine insurance business.

In the year under review the market was not confronted with a marine loss on the scale of the explosions at the Port of Tianjin in 2015. Nevertheless, the insurance industry was not spared losses in this year either. The damage to a production facility off the coast of Ghana in combination with the subsequent business interruption resulted in a significant offshore energy loss. In view of the conservatively oriented underwriting policy that we had pursued in prior years, the impact of this loss on our account was disproportionately slight relative to our market share.

The gross premium for our marine portfolio consequently fell by 6.6% to EUR 277.5 million (EUR 297.1 million). Despite the aforementioned loss expenditure and assisted, inter alia, by a positive run-off of loss reserves from old underwriting years, the combined ratio improved to 38.5% (60.0%) and the underwriting result consequently increased. The operating profit (EBIT) rose to EUR 138.1 million (EUR 112.3 million).

### Aviation

International aviation (re)insurance remained under strain in 2016, even though at the reporting date – aside from the burden of attritional losses – the market had only incurred two large claims that marginally exceeded a loss amount of USD 100 million.

The aviation line continues to experience a considerable supply of surplus capacity. In the case of the airline sector, this was equally true of the original market and the reinsurance side. The situation in general aviation business was somewhat more stable, although here too an excess supply of insurance capacities and the associated premium reductions were the dominant factors.

We adhered to our disciplined underwriting strategy in this soft market phase and kept a clear focus on non-proportional business. In this segment we operate as one of the market leaders. In proportional reinsurance, on the other hand, we reduced our shares – especially in customer portfolios dominated by airline business.

The premium volume for our total aviation portfolio contracted sharply in the year under review from EUR 377.3 million to EUR 278.7 million. Given that the large loss expenditure was more moderate than in the previous year, the combined ratio improved to 72.8%. The operating profit (EBIT) for our aviation portfolio grew to EUR 108.9 million (EUR 70.5 million).

#### **Credit, surety and political risks**

Hannover Re ranks among the market leaders in worldwide credit and surety reinsurance.

Economic growth around the world was rather weak on the whole in 2016. To some extent, the trend was downwards in certain emerging markets owing to the decline in commodity prices. Global growth in the primary insurance market therefore remained minimal. Reinsurance cessions rose slightly, in part because the more exacting capital requirements associated with Solvency II led to a greater need to pass on business. We write a large share of our acceptances in credit, surety and political risks in the form of proportional treaties, under which cost reimbursements in the year under review increased only moderately.

Gross premium income in these lines climbed by 1.3% in 2016 to EUR 613.5 million (EUR 605.6 million). Premium growth was boosted by modestly increased reinsurance cessions as well as the acquisition of new clients and the expansion of existing customer relationships.

The claims frequency in credit and surety business increased in the year under review, particularly in emerging markets. In addition, a few sizeable insolvency losses were recorded. The loss ratio in political risk insurance also rose slightly from a low level. The combined ratio of 104.9% for the entire portfolio was thus higher than in the previous year (98.9%). The operating profit (EBIT) shrank by 87.0% to EUR 8.3 million (EUR 63.7 million).

#### **United Kingdom, Ireland, London Market and direct business**

##### **United Kingdom, Ireland and the London Market**

The property and casualty business that we reinsure for companies in the United Kingdom and on the London Market developed largely satisfactorily in 2016. The intense competition in the primary sector was sustained in most lines and led to rate reductions. Based on our long-standing experience in the market we are a sought-after partner not only for our existing customers but also for start-ups, most notably Lloyd's syndicates. This enabled us to offset the premium erosion in existing business with new business. Pleasing double-digit rate increases were recorded in UK and Irish motor insurance business.

On the reinsurance side the rate reductions were not quite as marked overall as they were in original business. In non-proportional UK motor business – following at times appreciable increases in the years 2011 to 2014 – rates remained stable or rose slightly at the beginning of 2016, as in the previous year. Based on the increases in original business, it is pleasing to note that we are also expecting higher premium income through adjustments. In the other property and casualty lines we saw an easing in the pressure on rates compared to the past two years. Coverage extensions were also in demand. In keeping with our cycle management we scaled back our shares in programmes under which the prices or conditions were not considered attractive. No major losses were incurred.

#### **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 again substantially boosted in the financial year just ended. This is a very good performance, especially bearing in mind the intensive competition prevailing among the insurers and reinsurers writing business in these markets.

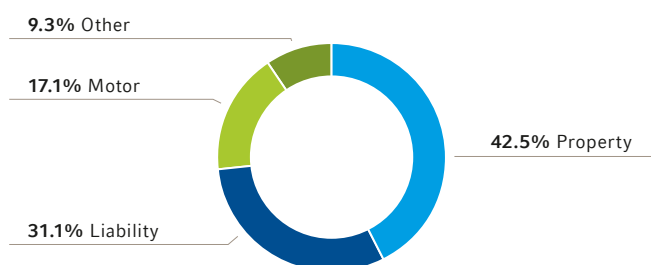
The gross premium booked from the United Kingdom, Ireland, the London Market and direct business retreated by 2.7% from EUR 519.7 million to EUR 505.6 million. The combined ratio stood at 95.6% (86.6%). The operating profit (EBIT) contracted accordingly to EUR 97.5 million (EUR 153.7 million).

### 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.

Extended coverage concepts and price reductions were observed across all areas in the year under review. In the case of offshore business as well as oil and gas risks, in particular, there was no sign of a trend reversal despite elevated claims activity. In view of this market climate we wrote our business selectively, and the premium income for these lines consequently declined.

**Property & Casualty reinsurance: Breakdown of gross written premium in facultative reinsurance** M17



The strategy that we put in place in recent years to expand our writing of cyber risks, personal accident/sports covers and renewables has already led to premium growth in these areas. The reorientation in US casualty business also began to bear fruit in 2016. What is more, it ensures that we will be able to generate additional growth in the years ahead.

Despite the protracted soft market we are highly satisfied with the development of our overall facultative portfolio in the year under review. The premium volume remained stable, even after deduction of a one-off special effect recorded in 2015.

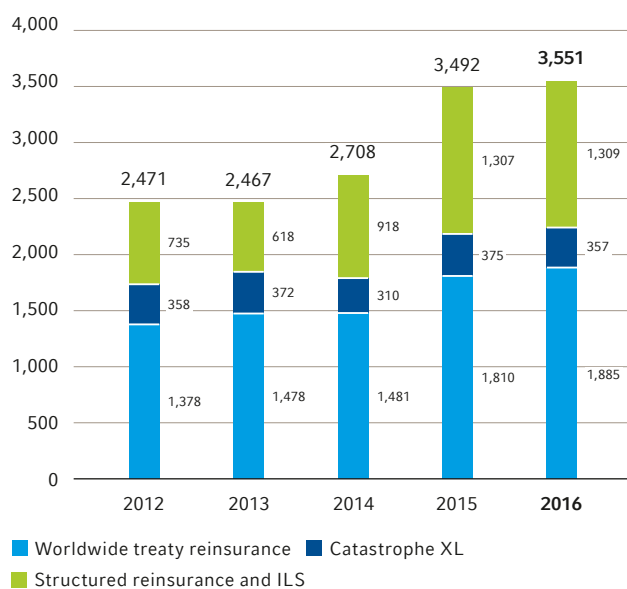
The 2016 financial year did not bring any particularly conspicuous developments in facultative reinsurance. Losses were incurred across all regions and lines, however, with an elevated frequency of natural catastrophe losses compared to previous years. Our results benefited from our limited risk appetite with respect to regions with natural hazards exposure. On the other hand, our portfolio was again impacted by losses from heavy industry. Here, too, however, our defensive strategy avoided any disproportionate strain on the total result. The combined ratio came in higher than the previous year (94.1%) at 95.6%. The operating profit (EBIT) decreased to EUR 95.0 million (EUR 118.3 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 1.7% in the year under review to EUR 3,550.9 million (EUR 3,492.1 million). The combined ratio deteriorated from 93.1% to 97.1%. The operating profit (EBIT) declined from EUR 377.7 million to EUR 294.3 million.

**Property & Casualty reinsurance: Breakdown of gross written premium in global reinsurance** M18  
in EUR million

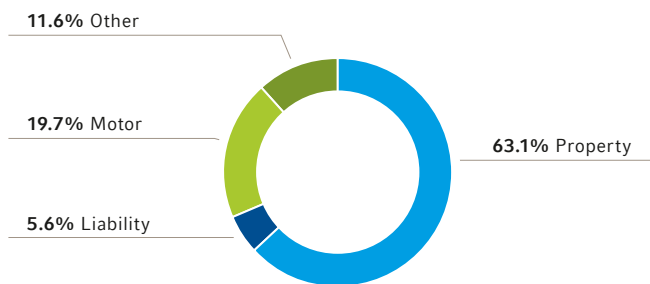


### Worldwide treaty reinsurance

We are satisfied with the development of our worldwide treaty reinsurance business. The gross premium volume grew in line with our expectations to EUR 1,885.0 million (EUR 1,810.4 million). The combined ratio of 103.9% was higher than in the previous year (95.7%). The operating profit (EBIT) contracted from EUR 165.7 million to EUR 65.5 million.



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



**Asia-Pacific region**

In the year under review Hannover Re again booked profitable growth in a fiercely competitive and strategically significant region.

The development of our business in Japan – one of our most important markets – was thoroughly satisfactory. Thanks to our excellent market position, our share of Japanese property and casualty reinsurance business continued to grow despite consolidation in the domestic market of Japanese cedants. Reinsurance conditions softened further under sustained competitive pressure, making this market, too, a challenge.

On the claims side the year under review was notable for the Kumamoto earthquake in April and a highly active typhoon season. In addition, the result in Japanese liability business was adversely impacted by pharmaceutical losses. Thanks to our broad-based positioning with our core customers in Japan across all lines of business, we were able to generate another positive profit contribution for Hannover Re despite the loss expenditure.

In China we again booked premium growth in the double digits. Working in close cooperation with the specialists back in Hannover, our locally licensed branch in Shanghai successfully expanded the portfolio with a small number of selected clients in our preferred lines and hence put our overall business relationships in China on a broader footing.

Results in the year under review were nevertheless overshadowed by an above-average number of mid-sized natural events, including several months of flooding in areas along the Yangtze River as well as various windstorms. The resulting losses were reflected not only in the reinsurance treaties but also in the books of many of our customers. From an overall perspective, the underlying conditions have not improved sufficiently despite the losses from the explosions at a container terminal in the Port of Tianjin and they are in need of further adjustment.

Primary insurance markets in South and Southeast Asia continue to generate disproportionately strong growth. We have been represented in this region for more than 20 years by a branch in Kuala Lumpur. Even though the underlying market

conditions have been detrimentally affected by the underlying market conditions, we have nevertheless succeeded in expanding new and less competitive business segments. Not only has this led to appreciable premium growth, it also improved the balance of the book of business written. The business performance in the year under review was thoroughly gratifying, reflecting the absence of sizeable natural disasters in the region as well as a generally low burden of attritional losses.

Having taken the initial steps in 2015 towards licensing of a branch in India, Hannover Re received final approval from the Indian insurance regulator on 23 December 2016.

In Australia and New Zealand the growth in gross premium was sustained – as in the previous year too – by large individual transactions. There was no change in the extremely competitive state of these markets. The first three quarters of the year under review passed off unusually favourably in this region. This was attributable to the fact that natural catastrophe events largely failed to materialise. The fourth quarter, on the other hand, was impacted by claims associated with the series of earthquakes in New Zealand in November. The area to the north of the city of Christchurch extending as far as the capital Wellington was particularly hard hit. Australia was additionally affected by a number of regional weather events that further increased the loss expenditure prior to year-end.

**South Africa**

Our property and casualty reinsurance business in South Africa is supported 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). The 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 reinsurance business is also written on the open market in South Africa and other African countries.

The economy on the African continent generated minimal growth in the year under review, in part owing to protracted political uncertainties. The planned solvency regime SAM (Solvency Assessment and Management) did not have any effects on our South African portfolio in the year under review, with implementation postponed to mid-2017.

In the face of unchanged heavy competition, results in direct insurance improved only slightly in the year under review. The major loss situation remained moderate.

Against this backdrop both Compass Insurance and Hannover Reinsurance Africa performed satisfactorily in the 2016 financial year. The premium volume remained stable.

### Latin America

Despite the sustained competitive environment, 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 present with a representative office, as well as Mexico, Argentina, Colombia and Ecuador.

Most Latin American markets are continuing to enjoy very dynamic growth. Primary insurance premiums are increasing by between 5% and 15% a year depending on the market. Growth is even stronger in Argentina and Venezuela, although high inflation rates are the principal driver here. The strongest demand for reinsurance covers is in the area of natural catastrophe risks, not only within individual markets but also increasingly across national boundaries.

The severe earthquake in Ecuador gave rise to net loss expenditure of EUR 58.3 million for Hannover Re's account; see also the list of major losses on page 85. Treaty conditions consequently improved appreciably in the subsequent round of renewals.

In the year under review, as had been the case in 2015, reinsurance premiums declined. The downward trend can be attributed to the devaluation of some Latin American currencies and to the higher retentions carried by primary insurers.

In Argentina we took an increasingly selective approach to writing our business in order to ensure that we met our margin requirements. We maintained our position in Brazil despite ongoing concentration on the primary insurance side. The primary market here is progressively stabilising, albeit on a low level. At the same time a tendency towards consolidation can be discerned.

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

### Agricultural risks

The insurance of agricultural risks was one of Hannover Re's fastest growing segments in the year under review. We further expanded our market position and rank among the preferred partners for agricultural covers. In addition, we have been taking on an increasingly active role in the development of original products. We entered into 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 market players.

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

We are satisfied with the development of our agricultural risks business. Particularly in the southern hemisphere, the loss situation in 2016 was influenced by the prevailing, exceptionally intense El Niño phenomenon: this was associated with, among other things, algae blooms in the Pacific as well as heavy rainfall and hail events in South America. There were also periods of drought in Australia and bushfires exacerbated by the dry weather. Leaving aside hail and outwintering losses, results for multi-risk insurance in the northern hemisphere were satisfactory. To this extent, the continued improvement in the diversification of our portfolio adequately alleviated and offset the extent of the negative results.

### 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. This business is written by our subsidiary in Bahrain. We also maintain a branch there with responsibility for traditional reinsurance in the Middle East. Our retakaful business has been growing very vigorously for some years now and we enjoy a strong position in the market. Overall, we are satisfied with the development of business in the year under review.

As we had already observed in the previous year, the takaful and retakaful markets have now become extremely competitive – in part also owing to the entry of new market players. Rates continued to be under pressure – as we had anticipated –, with the exception of a few areas. The most notable decline in the year under review was for construction risks written on a facultative basis. This was also a reflection of the slowing pace of economic growth in the region and the fall in oil prices.

We responded to this soft market environment by writing our business highly selectively. This led to a moderate contraction in the premium booked in the year under review.

### 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. Furthermore, the company has established itself as a provider of reinsurance products in the area of cyber risks.

Given that large losses again came in below expectations – with the associated good results for insurers and reinsurers – and in view of considerable surplus capacities, catastrophe business continues to be intensely competitive.



With this in mind, the pressure on rates in US property catastrophe business was sustained, although increases were only in the single-digit percentage range at a pace that was clearly slowing. As anticipated, rates similarly declined in the mature markets of Europe, in Japan and in Australia. Only in isolated cases, primarily under loss-impacted programmes, did rates move higher.

Although more natural catastrophe events were recorded in the year under review than in the previous year, losses were for the most part moderate for insurers and reinsurers alike and they remained within the modelled claims expectations. Nevertheless, our company was impacted by three sizeable events. In the first place, the forest fires in the area around Fort McMurray in the Canadian province of Alberta resulted in a net strain of EUR 127.9 million for our account. Secondly, the United States and the Caribbean suffered their first fairly costly windstorm event for some time in the shape of Hurricane Matthew. This storm did not, however, prove to be as destructive as originally anticipated. The net loss incurred by Hannover Re from Hurricane Matthew amounted to EUR 70.3 million. In addition, the serious earthquake in New Zealand gave rise to loss expenditure of EUR 56.3 million.

The gross premium volume for our global catastrophe business decreased from EUR 374.9 million to EUR 357.2 million. The combined ratio deteriorated to 55.9% (50.2%). The operating profit (EBIT) was stable at EUR 154.9 million (EUR 154.6 million).

### Structured reinsurance and insurance-linked securities

#### Structured reinsurance

Operating under its Advanced Solutions brand, 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 implementation of Solvency II in Europe and other risk-based solvency regimes in various countries has altered the risk-awareness of our customers, as a result of which we enjoyed further growth in demand in the 2016 financial year.

In keeping with our objective we continued to enlarge our customer base and further improved the regional diversification of our portfolio in the year under review. The adoption of new capital requirements (C-ROSS) in China prompted the discontinuation of large-volume quota share arrangements on motor business. This decrease was, however, offset by new quota share cessions for capital management purposes in North America and Europe. The premium volume in structured reinsurance therefore remained stable in the year under review while the number of contracts increased.

### 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 risks transferred to the capital market continued to grow in the year under review.

Through our activities we leverage the entire spectrum of opportunities offered by the so-called 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. We are also active ourselves as an investor in catastrophe bonds.

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 more than 20 years now – at an increased level of roughly USD 520 million for 2016. In addition to the K cession we use the ILS market for other protection covers as well. In this regard, we attach special significance to the fact that ILS investors must furnish collateral for their liabilities to us.

It remains the case that the currently available capital exceeds the available opportunities for making new investments in catastrophe bonds. This has prompted investors to look for other means of investing in the reinsurance sector. Collateralised reinsurance, in particular, grew market-wide in the year under review and surpasses by far the volume of funds invested in catastrophe bonds. A modest decline in the area of catastrophe bonds was more than offset by collateralised reinsurance business.

Under collateralised reinsurance programmes the investor assumes reinsurance risks that are normally collateralised in the amount of the limit of liability. In this business Hannover Re assists its clients with the transfer of reinsurance risks to the capital market; the company maintained its cooperation with selected fund managers on a consistently high level in the year under review and generated attractive margins.

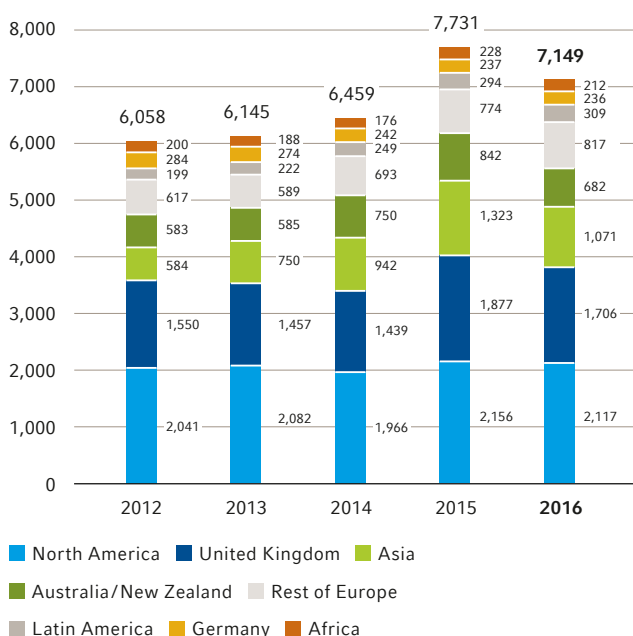
In addition, we successfully transferred further life reinsurance risks to the capital market.

The gross premium volume in structured reinsurance and from ILS activities was stable at EUR 1,308.7 million. The combined ratio stood at 97.3% (98.4%). The operating profit (EBIT) increased to EUR 73.9 million (EUR 57.4 million).

## Life & Health reinsurance at a glance

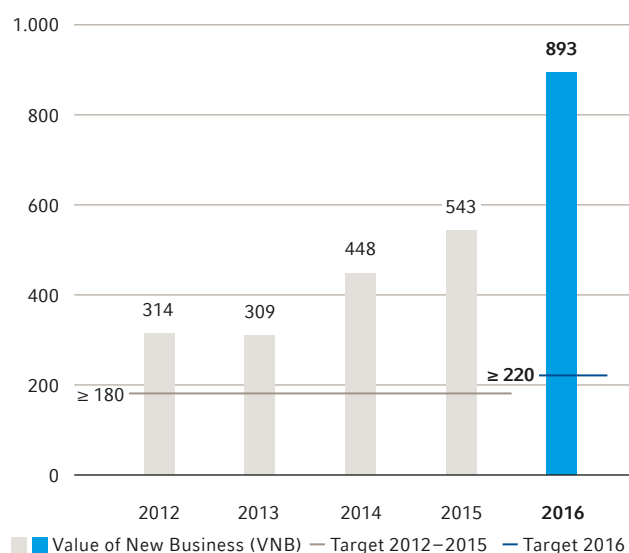
**Breakdown of gross premium by markets**  
in EUR million

M20



**Value of New Business (VNB) growth<sup>1</sup>**  
in EUR million

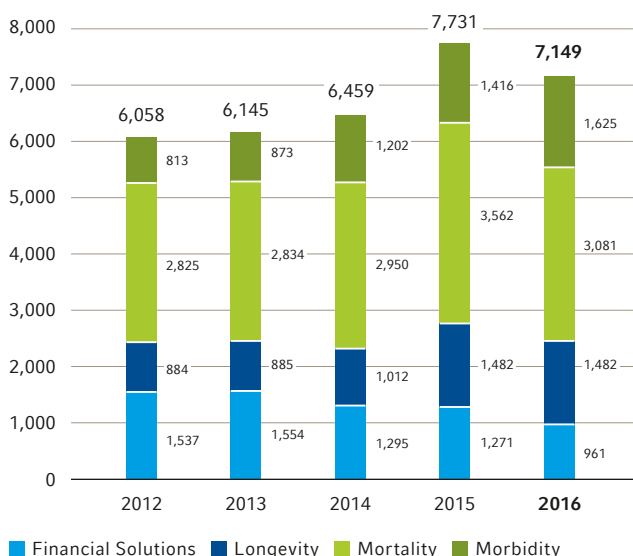
M21



<sup>1</sup> 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

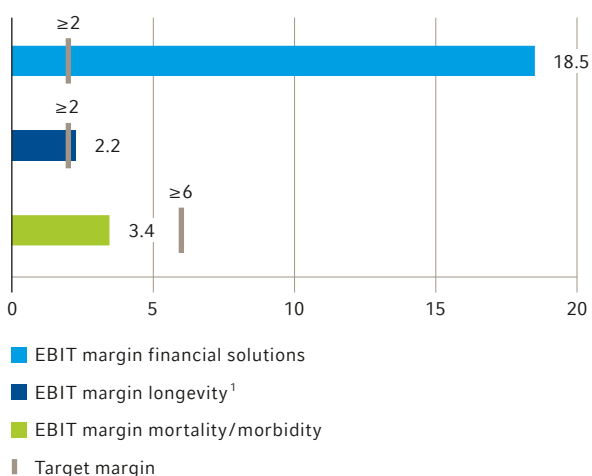
**Breakdown of gross written premium by reporting categories**  
in EUR million

M22



**EBIT-margin per reporting category vs. target margins 2016**  
in %

M23



<sup>1</sup> Including a longevity treaty that was previously classified under financial solutions

## Life & Health reinsurance

- Result confirms the profitability of underlying business
- Participations in innovative start-up companies
- Automated underwriting system hr | ReFlex continues its success story following 2015 launch

Life and health reinsurance contributed 44% (previous year: 45%) of Group gross premium in the financial year just ended. One of our two business groups, Life & Health reinsurance plays a key part in the success of our Group: in the first place through its positive stable business results and, secondly, through its diversification with property and casualty reinsurance. The consistency and enduring nature of its partnership-based business relations are particular hallmarks of life and health reinsurance. Thanks to our global network and our know-how, we retain our ability to shape developments and especially to drive innovations in the markets. The profitability and quality of the generated business nevertheless remain our overriding priority.

### Total business

All in all, the financial year just ended developed in line with our expectations. Conditions in the individual markets were often very dynamic.

In Germany many of our activities are concentrated on the implications of the Solvency II regime implemented on 1 January 2016. Fulfilment of the required capital adequacy ratio posed a major challenge for German life insurers. Yet beyond Germany's borders too – and in fact right across Europe – Solvency II has affected the (re)insurance industry. It was evident that the increase in regulatory requirements constitutes a global trend. Regulators in China, Australia and South Africa have either adopted or are currently planning more rigorous supervisory regimes. For the (re)insurance industry this means a constant need to adapt to changing requirements. Drawing on our global expertise, we engage intensively with the new policies in order to be able to cater to the resulting, country-specific needs of our customers and offer potential reinsurance concepts.

Quite aside from this, our longevity business also developed thoroughly favourably. International inquiries about longevity protection continued to increase in the financial year just ended.

Furthermore, topics such as digitisation and online insurance sales – which are preoccupying the worldwide insurance industry as a whole – played a prominent role in our talks with clients. We have explored these issues and the potential business opportunities in depth and already embarked on a number of activities.

As a reinsurer, we grow particularly strongly wherever the insurance market is growing. We have therefore focused closely on leveraging new business potentials outside of traditional (re)insurance by entering into partnerships with start-up

companies – such as fintechs – as a strategic investment. For companies such as these equipped with innovative ideas, the robustly capitalised Hannover Re – with its long-standing, international experience – represents an attractive partner. Partnerships such as these create an optimal platform for addressing, in particular, the members of a generation who are both tech-savvy and attach great importance to their health and quality of life: given how difficult such individuals are to reach via the traditional distribution channels of the life insurance industry, we seek to play an active part in these trends.

In the year under review we generated gross premium of EUR 7,149.0 million (EUR 7,730.9 million) in life and health reinsurance, a decline of 7.5%; the decrease was 4.3% adjusted for exchange rate effects. The determining factor here was the exceptional premium growth booked in 2015. The level of retained premium stood at 90.4% (84.2%). Net premium earned reached EUR 6,432.4 million (EUR 6,492.4 million), equivalent to growth of 2.2% after adjustment for exchange rate effects.

In view of the low level of interest rates, investment income in life and health reinsurance contracted – as expected – year-on-year and totalled EUR 638.9 million (EUR 709.2 million). The share of the income attributable to assets under own management amounted to EUR 330.8 million (EUR 334.3 million), while the contribution made by income from securities deposited with ceding companies came in at EUR 308.1 million (EUR 374.9 million).

The operating result (EBIT) in life and health reinsurance fell short of the previous year's figure at EUR 343.3 million (EUR 405.1 million); this was due in particular to the elimination of a one-off effect in the amount of EUR 39 million. We are satisfied with this very solid result, since it reflects the sustainable profitability and quality of the underlying portfolio. Group net income for life and health reinsurance contracted by 12.7% to EUR 252.9 million (EUR 289.6 million).

We report below on developments in life and health reinsurance in greater detail. The reporting is structured according to our internal risk management system and hence is split into the categories of financial solutions and risk solutions. For the purposes of differentiation by biometric risks, the category of risk solutions is further divided into longevity, mortality and morbidity. In the final section on underwriting services we provide a summary account of our extensive range of services that go above and beyond pure risk transfer.

## Key figures for Life & Health reinsurance

M24

	2016	+/- previous year	2015	2014	2013	2012 <sup>1</sup>
in EUR million						
Gross written premium	7,149.0	-7.5%	7,730.9	6,458.7	6,145.4	6,057.9
Net premium earned	6,432.4	-0.9%	6,492.4	5,411.4	5,359.8	5,425.6
Investment income	638.9	-9.9%	709.2	614.2	611.5	685.1
Claims and claims expenses	5,480.3	+0.4%	5,459.0	4,636.2	4,305.7	4,023.5
Change in benefit reserve	80.5	-20.4%	101.1	28.6	146.5	529.4
Commissions	1,032.6	-3.9%	1,075.1	946.4	1,169.0	1,098.0
Own administrative expenses	202.0	+2.4%	197.3	175.7	156.7	144.1
Other income/expenses	67.1	+86.9%	35.9	25.1	(42.9)	(36.7)
Operating result (EBIT)	343.3	-15.3%	405.1	263.8	150.5	279.0
Net income after tax	252.9	-12.7%	289.6	205.0	164.2	222.5
Earnings per share in EUR	2.10	-12.7%	2.40	1.70	1.36	1.84
Retention	90.4%		84.2%	83.9%	87.7%	89.3%
EBIT margin <sup>2</sup>	5.3%		6.2%	4.9%	2.8%	5.1%

<sup>1</sup> Adjusted pursuant to IAS 8

<sup>2</sup> Operating result (EBIT)/net premium earned

## Financial solutions

The financial solutions reporting category encompasses reinsurance solutions that focus on the management of our clients' solvency and capital position. They can take many different forms and are always tailored to the individual customer. Additional elements may, for example, be the optimisation of liquidity management or the (pre)financing of our customers' new business. The decisive criterion is that while biometric risks are transferred in principle, this does not constitute the primary motivation for the reinsurance coverage. The focus of these product solutions is on optimising and supporting the financial situation of our clients. The central importance of financial solutions business is reflected not only in the business volume – which has been growing year by year and which we write successfully in all parts of the world – but also in our long-standing experience and broad-ranging expertise. Our international teams work closely with our customers on individual, complex reinsurance structures optimally tailored to their varying requirements.

Our US subsidiary played a vital part in the success of our financial solutions business. Complex reinsurance solutions designed to optimise solvency and provide capital and reserve relief are a key driver of the Value of New Business in the United States. Numerous new contracts were once again written in the financial year just ended, and particularly in future reporting periods these will deliver an appreciable profit contribution.

Financial solutions business in Asia developed less vigorously than had been anticipated in some areas, although on balance the positive effects outweigh the negative. We view European markets with similar satisfaction. Stimulated by the requirements of Solvency II, we saw increased demand in the year

under review for reinsurance solutions geared both to providing capital relief and covering longevity risks. In our domestic German market, in particular, customers showed considerable interest in reinsurance financing solutions that reduce the supplementary reserves needed for life products promising guaranteed returns in excess of an official reference rate ("Zinszusatzreserve"). We were particularly pleased to successfully close the first contracts protecting against the risk of excessive policyholder lapse rates on the basis of Solvency II requirements.

Altogether, gross premium of EUR 961.2 million (EUR 1,271.3 million) was generated in the financial solutions reporting category. This corresponds to a share of 13.4% of the total gross premium income booked in life and health reinsurance. The operating result (EBIT) came in at EUR 168.0 million (EUR 203.2 million).

## Longevity

We classify reinsurance business under which the longevity risk constitutes the primary risk as longevity business. 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 the financial year just ended the United Kingdom continued to be not only the world's largest but also its most competitive longevity market. Particularly in this market, the implementation of Solvency II has increased the capital requirements for annuity insurance business, hence prompting a surge in demand for commensurate reinsurance protection. There are

even some instances where individual customers have withdrawn entirely from the longevity market. It is therefore exceptionally pleasing to report that in the United Kingdom we were able to successfully launch our new product with deferred annuity payments aimed specifically at older generations.

Worldwide, too, demand for reinsurance solutions to protect against the longevity risk has risen in response to increased regulatory reporting and risk management requirements in the international insurance industry as well as the parallel increase in life expectancy. Substantial, long-term commitments are putting primary insurers under ever greater strain. Yet most insurance companies have hitherto had little or no experience with the transfer of longevity risks, and what is more there is already considerable global competition. We engage in intensive discussions with our customers, in which we contribute our robust, wide-ranging expertise in order to devise bespoke reinsurance structures for them.

On a global level the gross premium for longevity business totalled EUR 1,482.4 million (EUR 1,482.1 million) in the financial year just ended. The operating result (EBIT) amounted to EUR 25.7 million (EUR 54.0 million). Bearing in mind our deliberately prudent reserving policy, the result is entirely in line with our expectations.

## Mortality and Morbidity

The biometric risks of mortality and morbidity are often joint elements of a business relationship in international (re)insurance business, and in some cases they are even covered under the same reinsurance treaties. We therefore measure the profit contribution made by these two reporting categories on a consolidated basis. Consequently, only the significant developments of the past year in the two reporting categories are discussed separately.

### Mortality

Mortality-exposed business forms the core of our traditional life and health reinsurance portfolio. We provide reinsurance solutions that protect our customers against the risk that the actually observed mortality may diverge negatively from the originally expected mortality.

US mortality business is an important market for our company. We are a sought-after business partner and we offer the entire spectrum of mortality-oriented reinsurance solutions. Part of our existing business has fared more poorly than anticipated and also affected the result for the year under review. Nevertheless, the US life insurance market is distinguished by its considerable power of innovation, which consistently generates new business potential. In the financial year just ended we wrote substantial volumes of new business, thereby all but offsetting the aforementioned negative effect.

The Latin American market proved to be extremely competitive in the financial year just ended. It is therefore all the more gratifying that we were able to successfully renew our large treaties

with existing customers, especially in our company's key markets of Mexico, Colombia, Peru and Chile. On European markets, too, we were able to at least maintain – and here and there even improve – our current market position. In Italy, for example, we significantly grew our portfolio, primarily in the bancassurance sector. Bearing in mind the comparatively poor result posted in 2015, the business development in France was very positive: our branch in Paris generated a pleasing profit from its new business and the total result has also returned to its accustomed level. In addition, new business in Africa and the Middle East also developed favourably.

The gross premium in the mortality reporting category amounted to EUR 3,080.9 million (EUR 3,561.6 million). Altogether, it accounted for 43.1% (46.1%) of the total gross premium income booked in life and health reinsurance.

### Morbidity

In the morbidity reporting category we group together the business that covers 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 specialist team of staff stands ready to support our entities worldwide, thereby enabling our local customers to optimally benefit from our global expertise.

In Central and Eastern Europe we are engaged in an intensive dialogue with primary insurance customers with a view to promoting the development of the private health insurance sector in these regions. In the United Kingdom we are already an established and sought-after reinsurance partner. This market is, however, notable for its exceptionally competitive and price-sensitive environment. Solid profitability is therefore a fundamental prerequisite for the acquisition of new business. Our book of US health reinsurance clearly outperformed our expectations and plays a major part in our total morbidity portfolio. The development of the Asian market was also extremely gratifying: we enjoyed brisk demand for reinsurance solutions for health insurance business and were thus able to roll out numerous new critical illness products here in cooperation with our local customers. The scope of coverage provided by the individual products is entirely new to these markets and enables policyholders to obtain enhanced and more all-round insurance protection. In India we are also involved in what are known as mass health schemes. Aimed particularly at more deprived sections of the population, these government-sponsored health insurance schemes open up access to a basic form of coverage.

The dynamic growth observed in Asia demonstrates the considerable demand existing in these increasingly ageing, large populations. In these markets we are seeing a steady rise in demand for products designed to protect against disease, disability and the need for long-term care.



Our worldwide morbidity business generated a gross premium volume of EUR 1,624.6 million (EUR 1,415.9 million) in the financial year just ended.

Taken together, the two reporting categories of mortality and morbidity produced gross premium of EUR 4,705.5 million (EUR 4,977.5 million). This gave rise to an operating result (EBIT) of EUR 149.5 million (EUR 147.8 million).

#### Underwriting services

Our relations with our customers are grounded on a partnership-based exchange. In the financial year just ended it was very evident that services above and beyond pure risk transfer have increased enormously in importance and are now considered by life insurers to be a major component of the business relationship.

Demand for automated underwriting processes was especially strong in the context of the digitisation of customer communication. Our own underwriting systems, specifically hr|ReFlex and hr|Quirc, enable us to optimally cover local and market-specific customer requirements. Thanks to its modular structure, hr|ReFlex can be adjusted with the utmost flexibility to fit the individual customer's particular situation. The system makes standardised and consistent underwriting decisions, thereby reducing the operational risk. Furthermore, hr|ReFlex offers detailed management evaluation options that facilitate targeted analysis and constant monitoring. An undogmatic and quickly implemented alternative, hr|Quirc is a particularly interesting option for developing markets. It has been used in South Africa for several years with considerable success.

First launched in 2015, we actively pressed ahead with the roll-out of our automated underwriting system hr|ReFlex in 2016. For example, we were able to successfully implement hr|ReFlex at customers in Norway, Sweden, France and America. In the United States, for example, it has been honoured with the distinction of "Most Transformative Solution". A host of international clients have signalled their interest in this underwriting system. In the coming year numerous implementations are already planned at notable primary insurance

customers. Not only that, we are continuing with our marketing efforts and expect to see a further rise in interest around the world. We consider the integration of policyholders into the underwriting process to be crucially important. Accessible from anywhere and capable of concluding insurance contracts in a quick and uncomplicated manner – these are the essential criteria for future (re)insurance solutions. Along with these implementation activities, we also entered into cooperation arrangements with (online) platforms specialising in insurance products in the 2016 financial year. This secures access for us to the valuable group of customers who take their health and quality of life seriously and tend to keep a constant eye on their bio-signs using mobile, wearable technology. It is especially important to raise awareness of insurance products among this generation. Such partnerships offer a superb basis for addressing the needs of these younger generations, in particular. In addition, they enable us – as a reinsurer – to access the underlying insurance business. Combining the application process with the lifestyle habits of policyholders facilitates a more appropriate and individual risk assessment. For policyholders, this is reflected in premiums and benefits that are customised to their needs. There is an unmistakable trend towards life insurance products increasingly taking on a more direct lifestyle relevance, with the actual insurance product merely constituting one component rather than being the exclusive focus.

As a traditional reinsurer we assume biometric risks from life insurers. In view of developments on capital markets and the more exacting requirements imposed by Solvency II in relation to the coverage of capital market risks, many insurance companies have signalled a need to pass on not only the biometric risk but also capital market risks. In order to ensure that we remain able to offer our customers the accustomed support in all situations, we have acquired minority interests in two companies specialising in the transfer of capital market risks.

Our customers are the absolute focus of our attention in every situation. A long-term and expert partner, we always make every effort to anticipate current and future requirements in the international (re)insurance markets.

## Investments

- Very good investment income despite challenging climate
- Return on investment at 3.0% slightly above the target figure
- High-quality investment portfolio even more diversified through equity exposure

We are highly satisfied with the development of our investments. Although the year under review was another challenging one owing to continued low interest rates and a global economic trend influenced by a range of uncertainties and risks, we were spared defaults in our fixed-income portfolio and – even in the aftermath of the unexpected outcome of the Brexit referendum halfway through the year – were compelled to take only moderate temporary impairments in our equity portfolio. Our exposures to the credit risk, emerging markets and private equity were also rewarded by the good performance of these markets. This is similarly true of the real estate sector. Ordinary investment income excluding interest on funds withheld and contract deposits delivered a gratifying performance to reach EUR 1,162.0 million (previous year: EUR 1,253.4 million). While it fell short of the previous year's level, it entirely lived up to our expectations. The challenging interest rate environment is increasingly making itself felt here, along with the elimination of the positive special effect from life and health reinsurance in the previous year. We were nevertheless able to partially make up for the diminished potential returns associated with the protracted low interest rate level through stronger income from dividends.

Net realised gains on disposals totalled EUR 206.3 million (EUR 135.8 million) and were in large measure attributable to regrouping moves as part of regular portfolio maintenance, the streamlining of our private equity portfolio through the sale of older exposures as well as internal capitalisation and financing measures within the Group. Gains were also realised in connection with the adjustment of the rating structure of our fixed-income portfolio (see here also the subsection on investments in the section "Financial position and net assets" on page 55).

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 0.5 million (-EUR 26.1 million). Altogether, the positive changes in the fair values of our financial assets recognised at fair value through profit or loss amounted to EUR 26.1 million (EUR 0.9 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.

### Investment income

**M25**

in EUR million	2016	+/- previous year	2015	2014	2013	2012
Ordinary investment income <sup>1</sup>	1,162.0	-7.3%	1,253.4	1,068.4	1,041.3	1,088.4
Result from participations in associated companies	9.1	-52.5%	19.2	1.0	12.5	10.4
Realised gains/losses	206.3	+51.9%	135.8	182.5	144.2	227.5
Appreciation	0.3	-52.3%	0.6	0.1	0.3	2.7
Depreciation, amortisation, impairments <sup>2</sup>	76.3	+97.1%	38.7	27.7	19.4	21.7
Change in fair value of financial instruments <sup>3</sup>	26.1		0.9	(33.3)	(27.1)	89.3
Investment expenses	109.1	+7.8%	101.2	95.3	97.3	96.4
Net investment income from assets under own management	1,218.3	-4.1%	1,270.1	1,095.8	1,054.5	1,300.2
Net investment income from funds withheld and contract deposits	332.1	-15.9%	395.0	376.1	357.3	355.5
<b>Total investment income</b>	<b>1,550.4</b>	<b>-6.9%</b>	<b>1,665.1</b>	<b>1,471.8</b>	<b>1,411.8</b>	<b>1,655.7</b>

<sup>1</sup> Excluding income and expenses on funds withheld and contract deposits

<sup>2</sup> Including depreciation/impairments on real estate

<sup>3</sup> Portfolio at fair value through profit or loss and trading

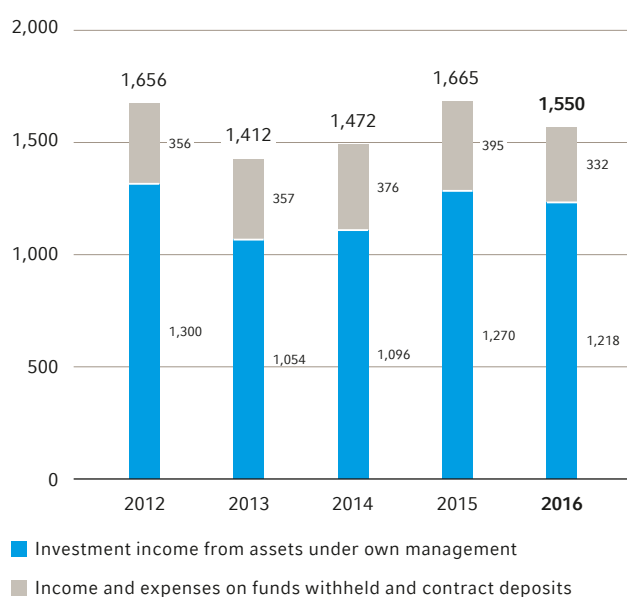
Impairments and depreciation totalling EUR 76.3 million (EUR 38.7 million) were taken, thereof EUR 30.1 million (EUR 1.9 million) on equities – primarily on account of lower prices following the Brexit decision. These write-downs have, however, to a large extent since been opposed by a reversal, which has correspondingly increased the valuation reserves. Impairments of EUR 11.7 million (EUR 5.9 million) were recognised on alternative investments. The write-downs taken on fixed-income securities amounted to just EUR 0.7 million (EUR 2.8 million). Scheduled depreciation on directly held real estate rose to EUR 28.9 million (EUR 23.7 million), a reflection of the further increase in our involvement in this sector. These write-downs contrasted with write-ups of altogether EUR 0.3 million (EUR 0.6 million).

Our investment income (including interest and expenses on funds withheld and contract deposits) came in below the previous year's level at EUR 1,550.4 million (EUR 1,665.1 million); bearing in mind the low interest rate level, the maturity and currency matching of liabilities and the elimination of positive effects from the previous year, it is nevertheless thoroughly satisfactory and indeed even somewhat better than our expectations. Income from assets under own management accounted for an amount of EUR 1,218.3 million (EUR 1,270.1 million). This produces a return on investment of 3.0%, which is also slightly higher than our target of 2.9%. The primary drivers here were our exposures to high-yield bonds and private equity as well as our investments in emerging markets, which generated somewhat stronger income than originally forecast. Interest on funds withheld and contract deposits decreased to EUR 332.1 million (EUR 395.0 million).

## Development of investment income

M26

in EUR million





## Development of Group net income

in EUR million

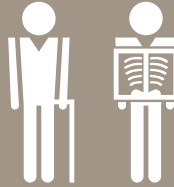
### Property & Casualty reinsurance

**455.6** → **949.9**  
2011 2016



### Life & Health reinsurance

**182.3** → **252.9**  
2011 2016



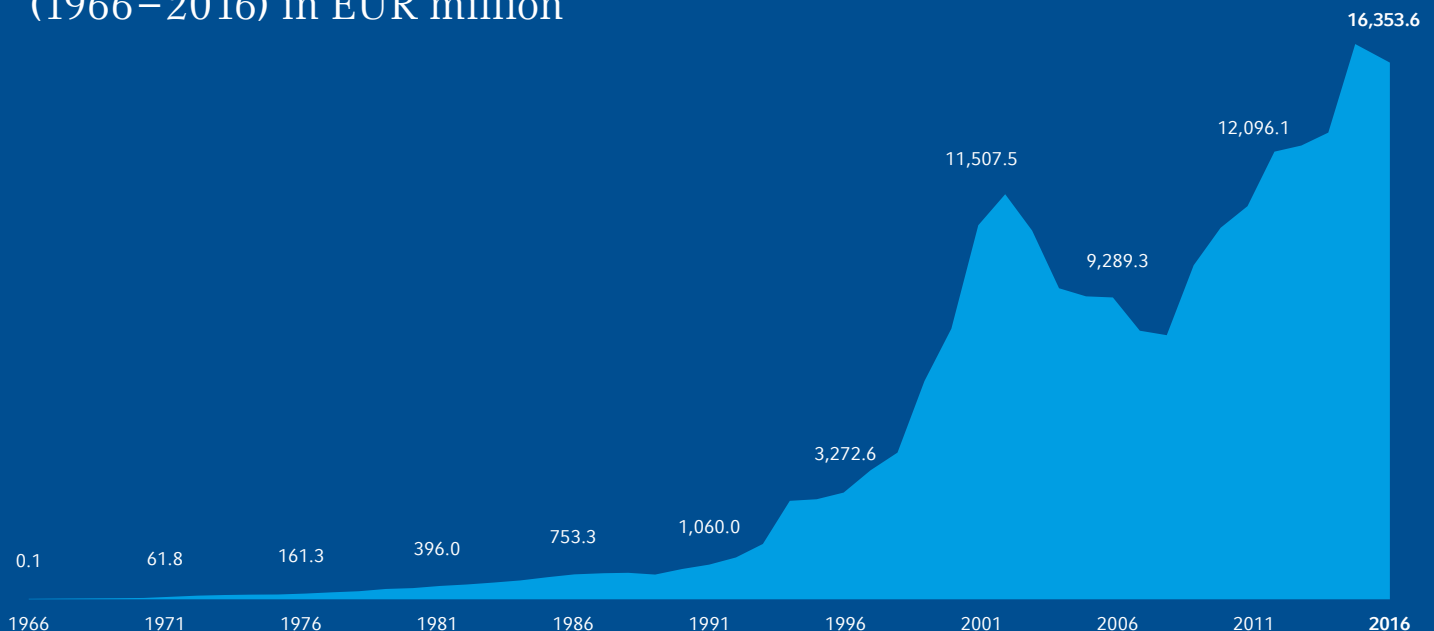
## Total gross premium by regions (2016)

32.6% North America  
15.7% Rest of Europe  
15.5% United Kingdom  
14.8% Asia  
7.6% Germany  
5.5% Australia  
5.5% Latin America  
2.8% Africa



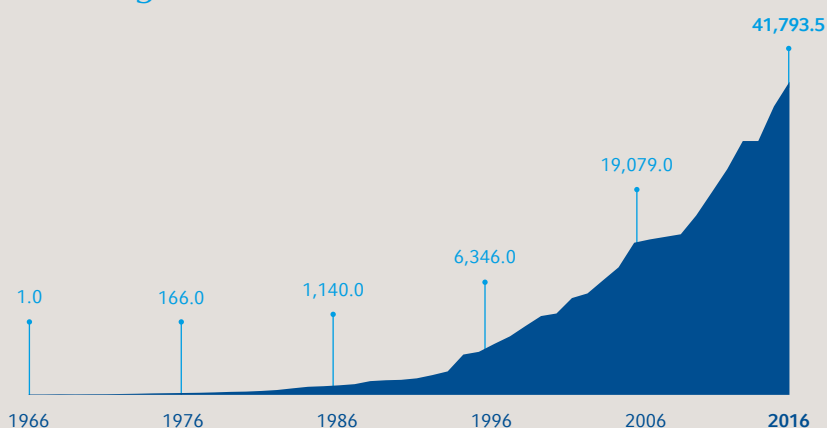
## Development of gross premium

(1966–2016) in EUR million



## Development of assets under own management 1966–2016

in EUR million



The losses caused by Hurricanes Katrina, Rita and Wilma made 2005 the costliest year to date in the history of Hannover Re.

## Financial position and net assets

- Risk-commensurate investment policy
- Diversification of high-quality investment portfolio improved even further
- Asset allocation adjusted to safeguard the return
- Further strengthening of shareholders' equity thanks to another excellent Group result

### 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 exposures 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. With this in mind 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 we kept the modified duration of our fixed-income portfolio broadly neutral, as a result of which it stood at 5.0 (previous year: 4.4) as at 31 December 2016. The higher figure reflects a modest business-related increase on the liabilities side which had to be covered by the portfolio. Furthermore, 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.

At year-end 2016 we held 30.2% (30.8%) of our investments in euro, 48.3% (46.7%) in US dollars, 6.9% (8.3%) in pound sterling and 5.1% (5.1%) in Australian dollars.

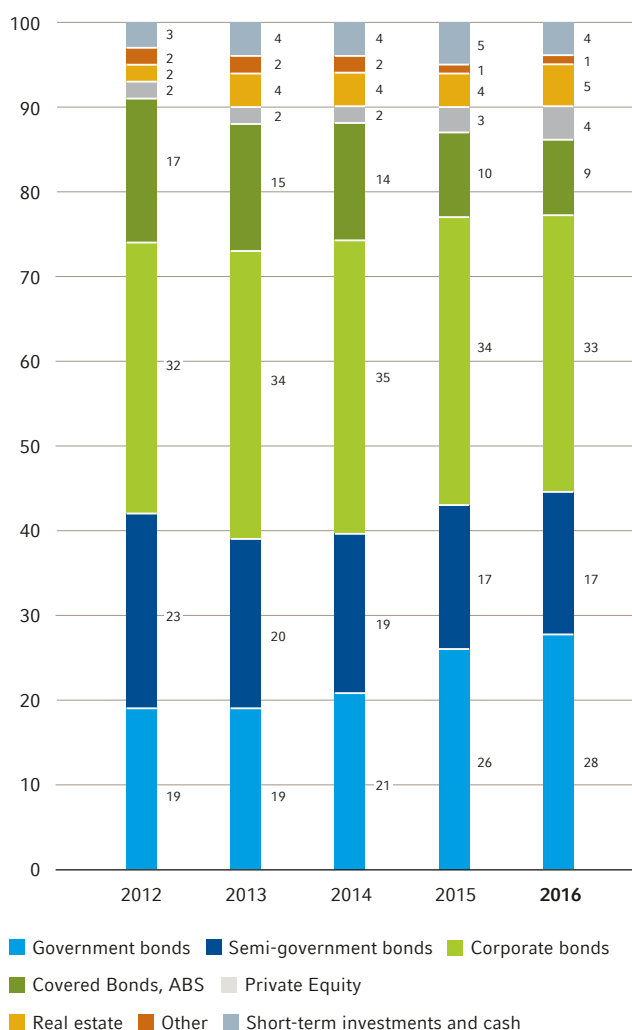
#### Investment portfolio

M27

in EUR million	2016	2015	2014	2013	2012
Funds withheld	11,844	13,990	15,919	14,343	14,751
Investments under own management	41,793	39,347	36,228	31,875	31,874
<b>Total</b>	<b>53,637</b>	<b>53,337</b>	<b>52,147</b>	<b>46,219</b>	<b>46,625</b>

## Breakdown of investments under own management M28

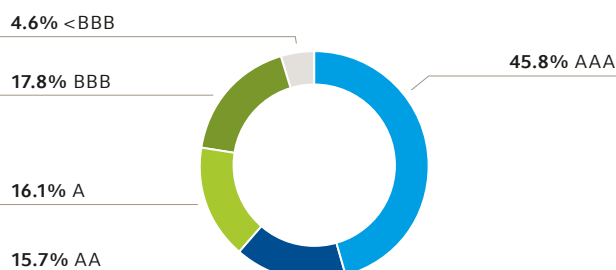
in %



continued stable returns, while maintaining the overall risk level of our fixed-income portfolio virtually unchanged. We also expanded the share of the portfolio attributable to investments in emerging markets. In addition, we moved to further enlarge our portfolio of listed equities in view of more attractive purchase prices. Another step that we took as early as the first quarter was the streamlining of our private equity portfolio through the sale of older exposures. We also moved to further increase 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 rose to EUR 35.5 billion (EUR 33.6 billion). Hidden reserves for available-for-sale fixed-income securities, which are allocable to shareholders' equity, totalled EUR 728.2 million (EUR 635.6 million). This reflects the yield decreases observed in the course of the reporting period, especially in the area of EUR- and GBP-denominated sovereign bonds, and above all 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 virtually unchanged high level as at year-end at 77.6% (79.8%).

## Rating of fixed-income securities M29



## Investments

Our portfolio of assets under own management improved to EUR 41.8 billion, a level considerably higher than at the end of the previous year (31 December 2015: EUR 39.3 billion). This growth was due in part to positive exchange rate effects – primarily associated with the strong US dollar – as well as increased hidden reserves in the areas of listed equities and private equity and, above all, to a gratifyingly positive operating cash flow.

In response to the challenging interest rate environment we adjusted the allocation of our investments to the individual classes of securities in the year under review 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

Holdings of alternative investment funds increased appreciably. As at 31 December 2016 an amount of EUR 722.4 million (EUR 781.5 million) was invested in private equity funds; a further EUR 750.7 million (EUR 678.8 million) was attributable predominantly to investments in high-yield bonds and loans. In addition, altogether EUR 390.7 million (EUR 371.3 million) was invested in structured real estate investments. The uncalled capital with respect to the aforementioned alternative investments totalled EUR 1,096.4 million (EUR 837.1 million).

As already mentioned above, we were again able to somewhat increase our real estate allocation in the course of the year. Two properties were acquired in the United States for this purpose; further projects are presently under review, and the real estate allocation should therefore keep rising steadily as planned. It currently stands at 4.6% (4.4%).

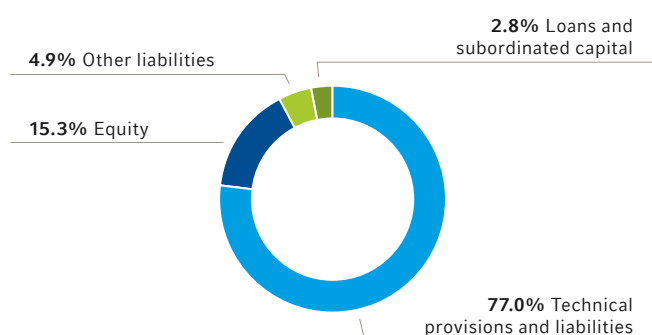
At the end of the year under review we held a total amount of EUR 1.7 billion (EUR 1.9 billion) in short-term investments and cash. Funds withheld amounted to EUR 11.8 billion (EUR 14.0 billion).

## Analysis of the capital structure

The capital structure and the composition of the liabilities of Hannover Re are shaped by our activity as a reinsurer. By far the largest share is attributable to technical provisions and liabilities. 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 2016, broken down into percentages of the balance sheet total.

Capital structure as at 31 December 2016

M30



The technical provisions and liabilities shown above, which include funds withheld/contract deposits and reinsurance payable, make up 77.0% (78.5%) 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 15.3% (13.9%) of the balance sheet total as well as the loans and – especially – subordinated capital at altogether 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.

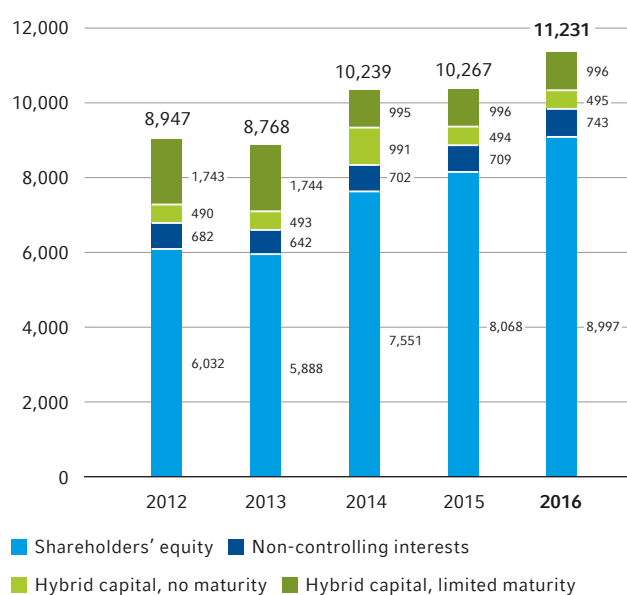
The policyholders’ surplus totalled EUR 11,231.4 million (EUR 10,267.3 million) as at the balance sheet date. The increase was due principally to the rise in retained earnings, in the foreign currency gains and losses recognised in equity and in the unrealised gains and losses, which are similarly recognised in equity. Overall, the policyholders’ surplus recorded significant growth with an increase of 9.4%.

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 22 et seq. of this report.

Development of policyholders’ surplus

M31

in EUR million



In its capital management Hannover Re is guided by the requirements and expectations of the rating agencies that assess the Group 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 73 et seq.).

## Group shareholders' equity

In view of another very positive result, the development of the shareholders' equity of the Hannover Re Group was pleasing. Compared to the position as at 31 December 2015, it surged by EUR 963.1 million – or 11.0% – in the year under review to EUR 9,740.5 million. After adjustment for non-controlling interests, it rose by EUR 928.9 million to EUR 8,997.2 million. The book value per share increased accordingly by a substantial 11.5% to EUR 74.61. The changes in shareholders' equity were shaped chiefly by the following developments:

Net unrealised gains on investments stood at EUR 904.2 million, a rise of EUR 192.2 million compared to the beginning of the year under review. This increase was mainly due to price gains on fixed-income securities, equities and investment funds.

The foreign currency gains and losses climbed by EUR 170.9 million from EUR 509.2 million to EUR 680.1 million as a consequence of exchange rate movements of foreign currencies against the euro in the financial year. The rise in the reserve for currency translation adjustment resulted principally from the appreciation of the US dollar and translation of the shareholders' equity of those subsidiaries whose equity is denominated in USD.

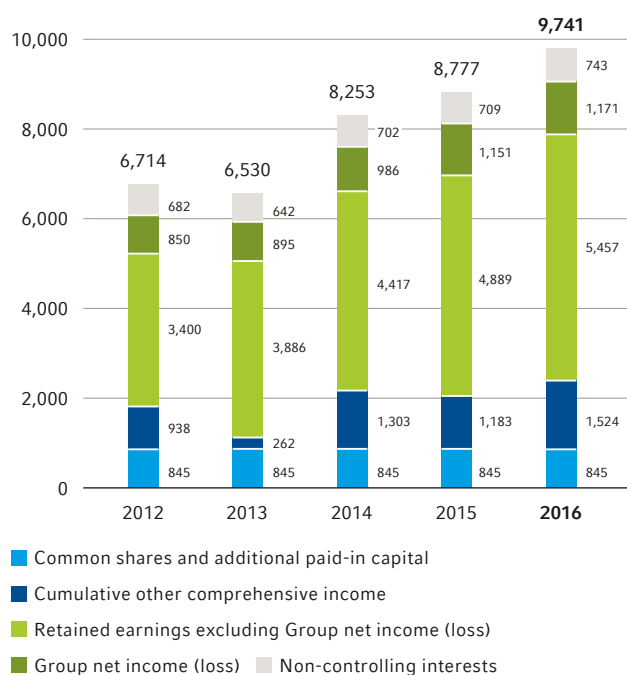
Non-controlling interests in shareholders' equity increased by EUR 34.2 million to EUR 743.3 million as at 31 December 2016. The bulk of this – in an amount of EUR 696.6 million – is attributable to the non-controlling interests in E+S Rückversicherung AG.

The Group net income for 2016 attributable to the shareholders of the Hannover Re Group climbed to EUR 1,171.2 million (EUR 1,150.7 million). The non-controlling interest in the profit generated in the year under review totalled EUR 55.2 million (EUR 64.0 million).

### Development of Group shareholders' equity

M32

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 1,804.2 million (EUR 1,798.3 million) as at the balance sheet date.

### Amortised cost of our subordinated bonds

M33

in EUR million	Issue date	Coupon in %	2016	2015
Hannover Finance (Luxembourg) S.A., subordinated debt, EUR 500 million; 2010/2040	14.9.2010	5.75	498.9	498.7
Hannover Finance (Luxembourg) S.A., subordinated debt, EUR 500 million; 2012/2043	20.11.2012	5.00	497.5	497.2
Hannover Rück SE, subordinated debt, EUR 500 million; 2014/undated	15.9.2014	3.375	494.5	494.0
<b>Total</b>			<b>1,490.9</b>	<b>1,489.9</b>

Several Group companies have also taken up long-term debt – principally in the form of mortgage loans – amounting to EUR 313.4 million (EUR 308.5 million).

For further explanatory information please see our remarks in the notes to this report, section 6.12 “Debt and subordinated capital”, page 208 et seq., and section 6.13 “Shareholders' equity and treasury shares”, page 212.

Various financial institutions have provided us with letters of credit for the collateralisation of technical liabilities. Both bilateral agreements and an unsecured syndicated guarantee facility existed as at the balance sheet date with a number of financial institutions for this purpose. The guarantee facility was terminated in January 2016 and partially refinanced through bilateral credit facilities. We report in detail on existing contingent liabilities in the notes, section 8.7 “Contingent liabilities and commitments”, page 233 et seq.

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.

## 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 140 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****M34**

in EUR million	2016	2015 <sup>1</sup>
Cash flow from operating activities	2,331.3	3,104.9
Cash flow from investing activities	(1,711.6)	(2,107.6)
Cash flow from financing activities	(626.9)	(1,054.8)
Exchange rate differences on cash	34.9	24.0
<b>Change in cash and cash equivalents</b>	<b>27.7</b>	<b>(33.5)</b>
Cash and cash equivalents at the beginning of the period	821.0	854.5
Change in cash and cash equivalents according to cash flow statement	27.7	(33.5)
<b>Cash and cash equivalents at the end of the period</b>	<b>848.7</b>	<b>821.0</b>

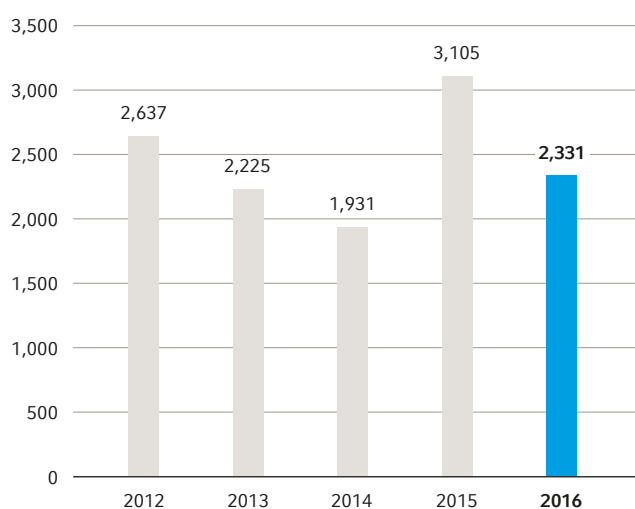
<sup>1</sup> Restated pursuant to IAS 8 (see section 3.1 of the notes "Changes in accounting policies")

**Cash flow from operating activities**

The cash flow from operating activities, which also includes inflows from interest received and dividend receipts, amounted to EUR 2,331.3 million in the year under review as opposed to EUR 3,104.9 million in the previous year. The reduction of altogether EUR 773.6 million was essentially due to the payment of retrocession premiums for certain financial solutions contracts in life and health reinsurance, under which the corresponding premiums for assumption of the business had already been received in the previous year. The lower premium level was also a factor in the decreased cash flow from operating activities.

**Cash flow from operating activities****M35**

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 1,711.6 million (EUR 2,107.6) 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 decreased from -EUR 1,054.8 million to -EUR 626.9 million in the year under review. The higher outflow in the previous year was mainly due to redemption of a EUR 500.0 million subordinated debt.

Overall, allowing for the restatements pursuant to IAS 8, the cash and cash equivalents therefore increased year-on-year by EUR 27.7 million to EUR 848.7 million.

For further information on our liquidity management please see page 95 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****M36**

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



## Financial strength ratings of subsidiaries

M37

	Standard & Poor's	A.M. Best
E+S Rückversicherung AG	AA-	A+
Hannover Life Reassurance Africa Ltd. <sup>1</sup>	BBB+	–
Hannover Life Reassurance Bermuda Ltd.	AA-	A+
Hannover Life Reassurance Company of America	AA-	A+
Hannover Life Re of Australasia Ltd.	AA-	–
Hannover Reinsurance Africa Ltd. <sup>1</sup>	BBB+	–
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+

<sup>1</sup> With regard to the financial strength ratings of the South African subsidiaries we would also refer to our remarks in section 8.10 of the notes "Events after the balance sheet date" on page 235.

## 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	a+
Hannover Finance (Luxembourg) S.A., subordinated debt, EUR 500 million; 2010/2040	A	a+

## 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 233.

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](http://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 optimal 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 2016 financial year passed off highly satisfactorily for Hannover Rück SE. The gross premium of Hannover Rück SE in total business decreased as anticipated by 15.7% to EUR 11.9 billion (previous year: EUR 14.1 billion). The level of retained premium contracted from 73.0% to 72.4%. Net premium earned also fell, declining by 16.1% to EUR 8.5 billion (EUR 10.2 billion).

### Condensed profit and loss account of Hannover Rück SE

M39

in EUR thousand	2016	2015
Earned premiums, net of retrocession	8,534,768	10,178,602
Allocated investment return transferred from the non-technical account, net of retrocession	237,271	328,840
Other technical income, net of retrocession	–	15
Claims incurred, net of retrocession	6,905,906	7,222,016
Changes in other technical provisions, net of retrocession	331,795	(1,020,247)
Bonuses and rebates, net of retrocession	30	(12)
Operating expenses, net of retrocession	1,860,197	2,105,799
Other technical charges, net of retrocession	902	1,056
<b>Subtotal</b>	<b>336,799</b>	<b>158,351</b>
Change in the equalisation reserve and similar provisions	8,724	(136,129)
<b>Net technical result</b>	<b>345,523</b>	<b>22,222</b>
Investment income	1,385,001	1,862,593
Investment charges	98,049	166,675
Allocated investment return transferred to the technical account	(277,463)	(532,949)
Other income	171,464	160,761
Other charges	284,704	281,979
<b>Profit or loss on ordinary activities before tax</b>	<b>1,241,772</b>	<b>1,063,973</b>
Taxes on profit and income and other taxes	292,540	158,172
<b>Profit for the financial year</b>	<b>949,232</b>	<b>905,801</b>
Profit brought forward from previous year	85,163	2,462
Allocations to other retained earnings	395	250,263
<b>Disposable profit</b>	<b>1,034,000</b>	<b>658,000</b>

The underwriting result (before changes in the equalisation reserve) improved in the year under review from EUR 158.4 million to EUR 336.8 million. Following an allocation of EUR 136.1 million in the previous year, an amount of EUR 8.7 million was withdrawn from the equalisation reserve and similar provisions.

Major loss expenditure in the year under review was notable for several severe earthquakes as well as windstorm events. Man-made losses were also recorded. Altogether, the burden of large losses for Hannover Rück SE was in line with expectations, despite coming in higher than in the previous year. The largest single loss for our account was the earthquake in Ecuador with a net strain of EUR 46.3 million. In addition, after several years of moderate storm seasons in the United States and the Caribbean, a costly event was incurred in the shape of Hurricane Matthew. The resulting loss for our company amounted to EUR 39.8 million. The total net expenditure from large losses for Hannover Rück SE was EUR 340.1 million (EUR 330.6 million).

Ordinary investment income including deposit interest fell clearly short of the previous year's level at EUR 1,197.9 million (EUR 1,737.8 million). This was due principally to the non-recurrence of special distributions made by our investment holding companies in the previous year as well as to reduced income from funds withheld and contract deposits owing to expiring contracts at our branch in China. This decrease is offset by the corresponding non-recurrence of interest expenses on funds withheld and contract deposits associated with the very same contracts, as reflected under other income and charges. Net gains of EUR 132.9 million (EUR 94.0 million) were realised on disposals. Write-downs of just EUR 34.9 million (EUR 83.2 million) were taken on investments. They were attributable principally to bearer debt securities held as current assets. The write-downs contrasted with write-ups of EUR 25.9 million (EUR 5.1 million) that were made on assets written down in previous periods in order to reflect increased fair values.

All in all, our net investment result retreated to EUR 1,287.0 million (EUR 1,695.9 million).

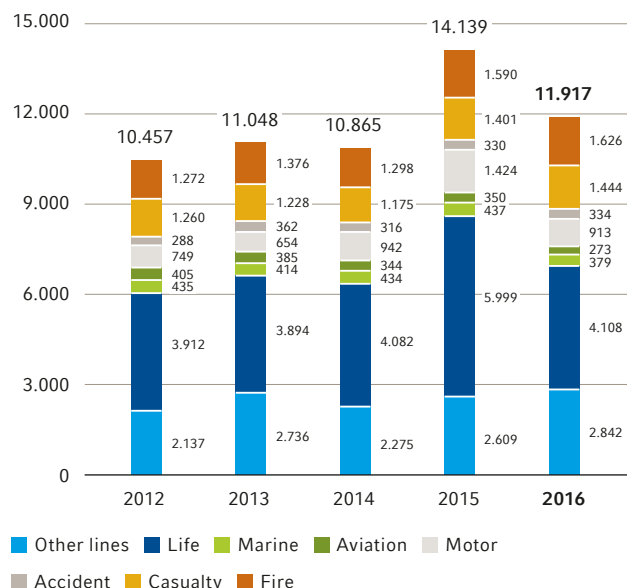
The profit on ordinary activities increased to EUR 1,241.8 million (EUR 1,064.0 million). The year under review closed with a profit for the year of EUR 949.2 million (EUR 905.8 million).

## Development of the individual lines of business

The following section describes the development of the various lines of business. We would like to point out that with effect from the beginning of the 2014 financial year the exchange of business under joint underwriting arrangements between Hannover Rück SE and E+S Rückversicherung AG was reorganised. In property and casualty reinsurance, however, a retrocession from Hannover Rück SE to E+S Rückversicherung AG has been maintained. The proportion of Hannover Rück SE's gross written premium attributable to business accepted from E+S Rückversicherung AG stood at 0.2% (0.2%) in the year under review and relates to the run-off of the 2013 and prior underwriting years.

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

**M40**



### Fire

Total gross premium income for the fire line climbed by 2.2% in the 2016 financial year to EUR 1,625.5 million (EUR 1,590.3 million). The net loss ratio rose in the year under review from 53.9% to 67.7%. The underwriting profit contracted to EUR 57.5 million (EUR 149.4 million). An amount of EUR 211.6 million (EUR 83.6 million) was withdrawn from the equalisation reserve and similar provisions in the year under review.

## Casualty

Gross premium in casualty business climbed by 3.1% to EUR 1,443.7 million (EUR 1,400.9 million). The loss ratio decreased from 82.6% to 78.0%. The underwriting result improved to -EUR 17.4 million (-EUR 69.5 million). An amount of EUR 190.3 million was allocated to the equalisation reserve and similar provisions in the year under review; the allocation in the previous year had totalled EUR 139.6 million.

## Accident

Gross premium increased for the accident line by a modest 1.2% to EUR 333.8 million (EUR 329.8 million). The loss ratio decreased from 70.3% to 64.8%. The underwriting result came in at EUR 22.0 million, after EUR 9.9 million in the previous year. An amount of EUR 20.6 million (EUR 23.7 million) was withdrawn from the equalisation reserve and similar provisions.

## Motor

Gross premium income for the motor line contracted by 35.9% to EUR 913.1 million (EUR 1,423.6 million). The loss ratio also decreased to 68.1% (85.5%). The underwriting result closed at EUR 53.2 million after -EUR 159.4 million in the previous year. An amount of EUR 106.5 million was allocated to the equalisation reserve and similar provisions in the year under review, after a withdrawal of EUR 13.1 million in the previous year.

## Aviation

The gross premium volume fell by 21.9% from EUR 349.7 million to EUR 273.0. The loss ratio decreased again, improving from 77.8% to 57.7% in the year under review. The underwriting result came in at EUR 39.3 million (EUR 2.5 million). An amount of EUR 23.3 million (EUR 15.5 million) was allocated to the equalisation reserve and similar provisions in the year under review.

## Marine

Gross written premium for the marine line contracted by 13.3% to EUR 378.7 million (EUR 436.9 million). The net loss ratio decreased markedly from 74.3% to 30.8%. Against this backdrop the underwriting result increased very substantially from EUR 8.2 million to EUR 105.7 million. Releases of loss reserves from prior years that were no longer required were a particularly key factor here. An amount of EUR 86.7 million was withdrawn from the equalisation reserve and similar provisions in the year under review, after an allocation of EUR 48.2 million in the previous year.

## Life

Gross premium income in the life line fell by 31.5% in the financial year just ended to EUR 4,107.8 million (EUR 5,998.7 million). This contraction had been anticipated in view of the above-average premium growth booked in 2015. Developments in the international markets were highly dynamic in many instances, opening up both new business opportunities and challenges. The protracted low level of interest rates, for example, continued to impact the development of business around the world, most notably causing the appeal of traditional (re)insurance products with savings components to further diminish. Regulatory changes such as the newly implemented Solvency II regime in Europe also ranked among the international challenges. It was particularly noticeable that primary insurers are increasingly seeking relief from the strain associated with capital-intensive longevity business.

The underwriting result in life business closed at EUR 97.0 million (EUR 163.3 million) in the year under review.

## 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 climbed by 8.9% to EUR 2,841.6 million (EUR 2,609.4 million). The net loss ratio rose in the year under review from 68.4% to 72.5%. The underwriting result closed at -EUR 20.5 million, after EUR 54.0 million in the previous year. An amount of EUR 9.8 million was withdrawn from the equalisation reserve and similar provisions, following an allocation of EUR 53.4 million in the previous year.

## Assets and financial position

### Balance sheet structure of Hannover Rück SE

M 41

in EUR thousand	2016	2015
<b>Assets</b>		
Intangible assets	76,359	77,960
Investments	35,646,313	41,338,228
Receivables	2,753,154	2,959,324
Other assets	384,729	331,197
Prepayments and accrued income	162,441	168,241
<b>Total assets</b>	<b>39,022,996</b>	<b>44,874,950</b>
<b>Liabilities</b>		
Subscribed capital	120,597	120,597
Capital reserve	880,608	880,608
Retained earnings	630,511	630,511
Disposable profit	1,034,000	658,000
<b>Capital and reserves</b>	<b>2,665,716</b>	<b>2,289,716</b>
Subordinated liabilities	1,500,000	1,500,000
Technical provisions	30,880,118	30,285,024
Provisions for other risks and charges	531,367	408,726
Deposits received from retrocessionaires	2,286,675	8,795,263
Other liabilities	1,159,116	1,596,213
Accruals and deferred income	4	8
<b>Total liabilities</b>	<b>39,022,996</b>	<b>44,874,950</b>

Our portfolio of assets under own management grew in the year under review to EUR 27.3 billion (EUR 25.7 billion). This corresponds to an increase of 6.4% and is reflected above all in the increased portfolio of bearer debt securities. The balance of unrealised gains on fixed-income securities and bond funds climbed to EUR 685.1 million (EUR 610.3 million). This reflects the yield decreases observed in the course of the year under review for EUR- and GBP-denominated bonds as well as reduced risk premiums for corporate bonds across all rating classes. Opposing effects derived from US Treasuries, which recorded yield increases across all maturity segments over the year as a whole.

Deposits with ceding companies, which are shown under the investments, fell to EUR 8.3 billion (EUR 15.6 billion) in the year under review; this was attributable primarily to expiring contracts at our branch in China.

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 – increased during the year under review to EUR 34,011.8 million (EUR 33,416.7 million). The balance sheet total of Hannover Rück SE decreased to EUR 39.0 billion (EUR 44.9 billion).

A dividend of EUR 3.25 plus a special dividend of EUR 1.50 per share, equivalent to EUR 572.8 million (EUR 512.5 million), was paid in the year under review for the 2015 financial year.

It will be proposed to the Annual General Meeting on 10 May 2017 that a dividend of EUR 3.50 plus a special dividend of EUR 1.50 per share should be paid for the 2016 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. The risks are set out 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, 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 2017" on page 131, which also reflect in particular the expectations for Hannover Rück SE.

Given that the loss-heavy year of 2001 will no longer be included in the 15-year observation period used to calculate the equalisation reserve, Hannover Rück SE additionally anticipates a positive one-off effect from the release of equalisation reserves in 2017 that is expected to significantly increase the profit for the financial year reported under the German Commercial Code (HGB).

In terms of the dividend for the current financial year, 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.

# Other success factors

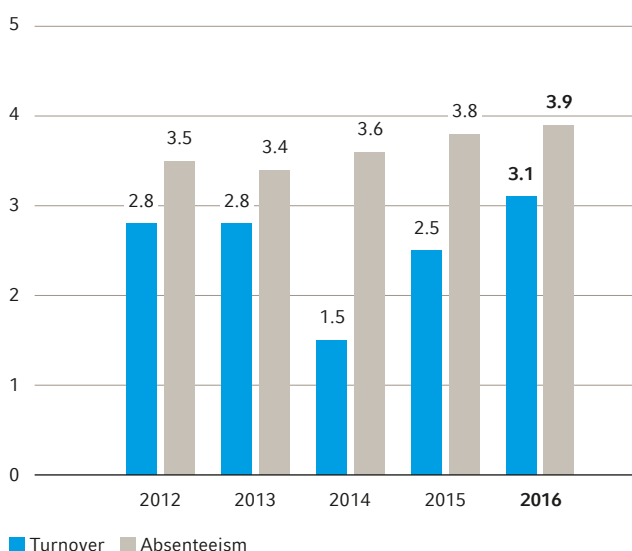
## Our staff

### Key personnel ratios

The Hannover Re Group employed 2,893 staff as at 31 December 2016 (previous year: 2,762). The turnover ratio at our head office in Hannover of 3.1% (2.5%) was higher than the level of the previous year. The rate of absenteeism – at 3.9% – was slightly higher than in the previous year (3.8%). The turnover ratio and rate of absenteeism continue to be below the average expected across the industry as a whole.

**Staff turnover/absenteeism Hannover head office**  
in %

M42



### Health management expanded

The expansion of our strategic health management was a focus of our activities in the financial year just ended. In so doing, we are responding to the demands of shifting demographics and helping to preserve the capacity of our managers and staff to do their job and to cope with the challenges placed upon them.

By way of introduction to this topic, we offered our managers a presentation event on working capacity, coping and health management that was geared to their concerns. The most visible measure, however, was undoubtedly the first company-wide health day, at which we communicated holistic knowledge on various issues of in-house health management in the form of talks and activities. A range of hands-on measures made for a lively setting and provided our managers and staff alike with pointers for initiating wellness-promoting measures on a direct and individual basis.

Given that relaxation know-how was an aspect that met with a particularly positive reception, we took this as an opportunity to design a specially tailored seminar as part of our regular in-house programme of further training. This training activity enables participants to create their own personal relaxation profile and to learn how to integrate the insights gained into their everyday routine.

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 psychological/health concerns as well as a service for families. This measure, too, contributes to wellness and serves a preventive function, thereby helping to ensure that challenges do not become burdens and that working capacity is preserved for the long term – in the interests of both our employees and the company.

## Recruitment efforts intensified

In our recruitment efforts we find ourselves faced with a tightening applicant market and increasingly challenging demographic factors. Nevertheless, going forward it remains incumbent upon us to ensure that at the right moment we are able to attract those candidates who are the best fit both for the company in general and for the specific position. With this in mind, we have revamped our recruitment activities.

As our starting point, we evaluated a number of external studies, some of which were specially oriented towards our needs. We were able to obtain up-to-date and detailed information about the career expectations and employer preferences of our primary applicant target groups. We combined these findings with insights gained from internal surveys. This produced a clear picture of the messages that we, as an employer, should communicate externally in a genuine manner.

The Employer Value Proposition elaborated on the basis of these insights forms the basis of our personnel marketing communication. On the one hand it is integrated into our established recruiting processes and tools, while at the same time we use it as a platform for picking up on new trends so as to reach out even better to our target groups.

Among the new tools that we have drawn on in order to advance our recruiting efforts particular mention should be made of online chat sessions with HR consultants or the improved individual support offered to students, to name just two examples. Furthermore, with a view to specifically addressing (young) professionals even better as a group, the profile of the Hannover Re Group in the business network Xing was reworked with a more polished look.

Reinsurance is a business that often needs some form of explanation, even for many young professionals and qualified graduates. We tackle this challenge by using recruitment tools that lend themselves particularly well to closing this knowledge gap. Thus, for example, we are increasingly placing employee reports in university magazines and on online platforms and we are expanding our use of testimonial films. These short films present the varied range of tasks and job profiles within our company and map out a successful entry to the reinsurance industry. Factors such as an adequate work-life balance as well as support for diversity and equal treatment at our company – all concerns of increasing importance to our target groups – are also addressed.

## Breakdown of employees by country

M43

	2016	2015
Germany	1,349	1,337
USA	312	284
South Africa	276	271
United Kingdom	235	156
Sweden	180	170
Australia	98	103
China	71	72
Malaysia	62	53
France	55	54
Bermuda	46	45
Bahrain	45	46
Ireland	43	51
Colombia	27	27
Canada	23	16
India	18	27
Italy	12	11
Korea	9	10
Japan	9	7
Spain	7	7
Mexico	7	7
Brazil	5	4
Taiwan	4	4
<b>Total</b>	<b>2,893</b>	<b>2,762</b>

## Results of the employee survey acted on

In the financial year just ended we also continued to engage with the findings of the first international employee survey conducted within the Hannover Re Group. Once all the units had received their results, they were tasked with developing individual measures to leverage identified potentials and safeguard existing strengths. Activities here centred around communication and information, further training and delegation as well as the fostering of (international) cooperation. All in all, our assessment of the first international employee survey is positive, both in terms of the pleasing survey findings and the quality of the measures that have been initiated.

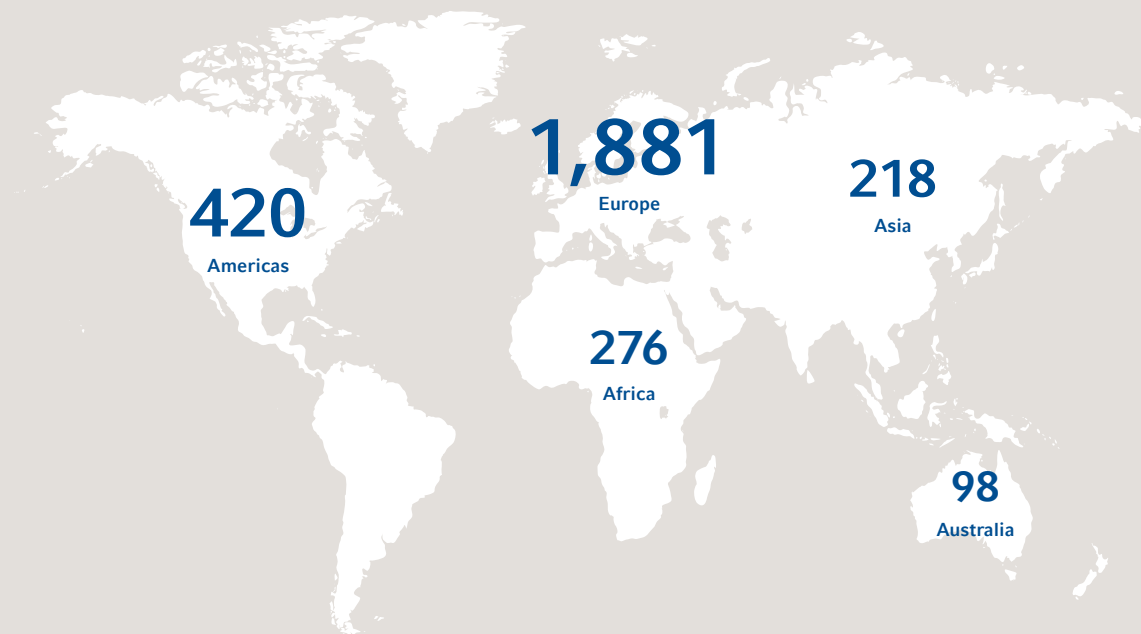
## Word of thanks to our staff

The Executive Board would like to thank all employees for their dedication in the past year. At all times the workforce identified with the company's objectives and successfully pursued them. We would like to express our appreciation to the members of staff and the representatives who participated in our co-determination bodies for their critical yet always constructive cooperation.



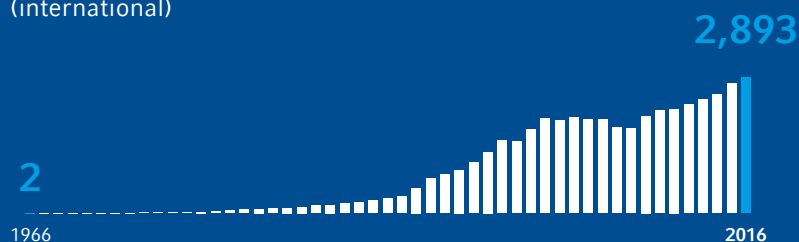
# Workforce by continents

as at 31 December 2016



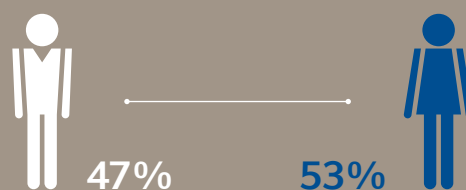
## Growth in staff numbers

(international)



## Gender distribution

(2016, Hannover head office)



# 42



The average age of all employees at Hannover head office is 42.

# 11

is the average length of service with the Hannover Re Group (Hannover head office).

## Nationalities at Hannover head office

(2016)



# Sustainability at Hannover Re

## Sustainability strategy of the Hannover Re Group

For Hannover Re, sustainability means a commitment to long-term value creation combined with the forward-looking concept of good corporate governance, a voluntary undertaking to conserve the environment and social responsibility. Our day-to-day business as a reinsurer involves the professional handling of highly diverse risks. Our value contribution lies in our ability to bring together our extensive risk expertise with sophisticated underwriting practice. In so doing, we help to make risks in both private and business life manageable. An anticipatory approach to dealing with risks in the areas of reinsurance and investment management is of special importance inasmuch as we must keep our payment promises to our clients not only today but also 20 or 30 years from now. With this in mind, in 2011 we drew up a Sustainability Strategy for Hannover Re that reflects in concrete terms the corporate strategy of the Group and in which we explicitly commit to our strategic objective of sustainable value creation.

Our current Sustainability Strategy for the years 2015 to 2017 was developed on the basis of a materiality analysis. It defines four action fields and further specifies 14 concrete goals and 42 measures.

We set out below our primary avenues for moving forward on sustainability and the most significant developments in 2016. The Sustainability Report of the Hannover Re Group containing detailed information on our strategy, our approach and our advances in matters of sustainability can be accessed on our corporate website at [hannover-re.com/60729/sustainability](http://hannover-re.com/60729/sustainability).

## Corporate Governance and dialogue

As an internationally operating company, Hannover Re bears responsibility in various senses. This is true of its compliance with relevant laws and regulations, but also applies to its relationship with staff, shareholders, the public at large and the cultures within which the company operates. As a European company (Societas Europaea – SE) based in Germany, the formal framework that shapes Hannover Re's corporate governance is determined by German law. The fundamental hallmarks of this corporate governance 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 Annual 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. The highest authority for sustainability issues is the Executive Board, whose members pursue the sustainability objectives on a collective basis.

In addition to our continuous engagement with the changing legal framework conditions, since 2003 we have provided an annual Declaration of Conformity with the German Corporate Governance Code (DCGK); this is published on our corporate website and reproduced on page 98 et seq. of the present Annual 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 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. Through conferences, roadshows and one-to-one meetings, for example, we stay in contact with representatives of the capital market. Our employees cultivate the dialogue with our worldwide customers through direct, face-to-face discussions. Furthermore, we regularly measure customer satisfaction with the assistance of external market research institutes. We similarly engage in an ongoing dialogue with political decision-makers, supervisory authorities and insurance industry associations. The primary focus here is on topical issues in insurance supervision and financial market regulation in Germany, the European Union and on the international level. In this context Hannover Re contributes its specialist expertise from business practice to the public debate. Hannover Re is also a member of various associations, advocacy groups and organisations.

In our annually published Sustainability Report we provide ongoing information about our achievements as a responsible company. In this regard we follow the currently applicable and internationally recognised guidelines of the Global Reporting Initiative (GRI). Furthermore, a favourable rating testifies to the fact that our sustainability communication lives up to the transparency requirements of Environmental, Social and Governance (ESG) rating agencies: in June 2015 Hannover Re received confirmation for the first time of its inclusion in the worldwide FTSE4Good Index Series from the FTSE Environmental, Social and Governance Advisory Committee – an index on which it has been listed since that date.

## Sustainable insurer and responsible investor

Our range of reinsurance products and services is geared to the needs of the market and our clients. Hannover Re is active in virtually all lines of reinsurance business. Our products range from traditional reinsurance to complex individual solutions for risk transfer and the optimisation of our clients' capital requirements. As a leading player in the reinsurance industry, the commercial success of Hannover Re is crucially dependent on the correct assessment of present and emerging risks. These include not only the recent proliferation of geopolitical and economic uncertainties, but also developments such as demographic change, shifting mobility patterns in populations, increasing digitisation and the resulting cyber risks as well as climate changes and the associated discussions centred on food and water security. By organising topically specific conferences, visiting clients and attending trade fairs and expert gatherings we enable our customers to share our knowledge and we use the internally and externally acquired experience in order to be able to offer them better or innovative (re)insurance solutions and to strengthen our customer relationships.

As far as our core business is concerned, in the growing market for microinsurance products we intensified our cooperation with primary insurers in Pakistan, the Philippines and Indonesia. Furthermore, the protection of agricultural production is of considerable relevance to the development of more deprived regions. We therefore continued our cooperative efforts with government and international organisations to expand agricultural insurance. We have encouraged the development of products in response to climate change, such as weather insurance and coverage for energy-saving warranties, among other things by supporting the extension of energy-saving warranties to other European countries. 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 insurance products, where the premium is linked to an insured's healthy lifestyle (e. g. fitness and nutritional habits).

When it comes to the management of our investment portfolio, we aim to generate a commensurate market return in the interests of our clients and shareholders. This is done in accordance with our Sustainability Strategy by incorporating ESG (environmental, social and governance) criteria into our investment policy. Specifically, since 2012 we have been guided by the ten principles of the United Nations Global Compact and thus also recognise the aspects of human rights, working conditions, the environment and anti-corruption. Since 2013 our investments have been reviewed half-yearly to verify compliance with these ESG standards. Altogether around 90% of our investments are screened every six months according to ESG criteria.

## Attractive employer

Our employees are one of our company's most important success factors. Employing successful staff on a long-term basis is one of the ten key points of our Group Strategy. With this in mind, we systematically support the professional growth, personal development and health-related well-being of our employees and enshrine this approach in the strategic principles governing our human resources management. When it comes to preserving the well-being of our staff, we are continuing our commitment to health management with a focus on the prevention of disease.

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 – since this is vital to safeguarding our high global quality standard. At Hannover head office alone the members of staff come from 39 different nations, a reflection of the international dimension of our business operations. By expanding our mentoring programme we help women at our company to reflect on their professional development so far and take active steps to shape their future career path. Our range of seminars serves to develop all the company's employees and is designed to encourage a positive attitude towards life-long learning, even among our more seasoned staff. The co-determination of our staff is enshrined in their right to have a say through the Group-wide and/or local Employee Council. In addition, the three employee representatives on the Supervisory Board of Hannover Re ensure the participation of our staff in this oversight body.

We also stress the importance of enabling our employees to strike the right balance between their career and private life. Consequently, we offer individually customisable part-time and telecommuting models as well as flexitime working arrangements with no core hours. By offering such flexibility we want to help our employees organise their daily routine in various stages of life such as starting a family or preparing for retirement, e. g. through partial retirement opportunities for older staff.

## Environmental management and social responsibility

The environmental impacts of Hannover Re's business operations are comparatively slight. We nevertheless take our responsibility for the environment very seriously and with the implementation of our environmental management system – which was certified according to DIN EN ISO 14001 in 2012 – we have put in place standard processes for dealing with environmental protection and specified concrete measures in our environmental programme.

In the year under review Hannover Re completed the successful changeover and certification of its environmental management system according to DIN EN ISO 14001:2015. In addition, we drew up our first environmental statement in accordance with the Eco Management and Audit Scheme (EMAS) Regulation and had it validated by an environmental verifier. Major features of the EMAS Regulation include a rigorous orientation towards continuous improvement of environmental efficiency, the use of consistent performance indicators in relation to key environmental aspects as well as verification of compliance with legal requirements.

The focus of our efforts to conserve the environment is on reducing carbon dioxide (CO<sub>2</sub>) emissions associated with the supply of electricity and heating to our premises as well as with our business travel. Having already converted our power supply at the German location to renewables, we now want to extend this progressively to our international offices as well.

Hannover Re's carbon dioxide emissions at its German location in 2016 amounted to 9,023 (previous year: 8,581) tonnes, some 5.2% more than in the previous year. This is equivalent to per capita CO<sub>2</sub> emissions of 6.7 tonnes (+4.2% compared to the previous year).

In 2016, as in previous years, we compensated for our unavoidable CO<sub>2</sub> emissions caused by business travel by making voluntary offsetting payments to the international organisation "atmosfair". In addition, the 2016 financial year was the first

one in which we offset emissions from the use of district heating and from our paper consumption by purchasing climate certificates for the moorland project of Friends of the Earth Germany (BUND – Bund für Umwelt und Naturschutz Deutschland). We were thus successful for the first time in operating with a net zero carbon footprint at the Hannover location.

In the financial year just ended, as in prior years, we reported on our measures to reduce carbon dioxide emissions as part of the international initiative overseen by the Carbon Disclosure Project (CDP); in this context we achieved a score of B (Management).

The table below breaks down Hannover Re's consumption and emissions over the past five years.

Our commitment to society has a long tradition. Hannover Re has been active as a sponsor of culture and social projects for several decades. Our activities extend beyond our location in Germany to our subsidiaries with their specific projects catering to social concerns in their own country. Content-wise, we concentrate our non-profit activities today on the areas of research, learning, art and music as well as on assisting our employees with their voluntary contributions to society.

Detailed explanatory remarks on our consumption of resources as well as extensive information on our social commitment can be found at [www.hannover-re.com/60729/sustainability](http://www.hannover-re.com/60729/sustainability).

#### Resources consumed at Hannover head office

M 44

	2016 <sup>2</sup>	2015 <sup>2</sup>	2014 <sup>1</sup>	2013 <sup>1</sup>	2012 <sup>1</sup>
Number of staff	1,349	1,337	1,289	1,219	1,164
Electricity (in kWh)	9,008,650	8,868,345	8,969,975	9,114,482	8,802,262
Heat (in kWh)	3,097,942	2,746,698	2,748,014	3,359,694	2,319,854
Water (in l)	16,664,000	17,088,000	15,176,000	15,778,000	14,961,000
Paper (in sheets)	5,753,750	6,600,810	7,551,200	8,502,060	8,766,000
Waste (in kg)	162,890	156,880	193,760	214,250	205,790
Business trips (in km)	20,738,566	20,530,043	20,447,867	18,185,062	16,654,504
CO <sub>2</sub> emissions (in kg) <sup>3</sup>	9,023,000	8,581,000	7,798,000	7,203,000	4,984,000

<sup>1</sup> Karl-Wiechert-Allee 50, Roderbruchstraße 21 and 26 as well as infant daycare centre, Karl-Wiechert-Allee 57 (pro rata), Hannover

<sup>2</sup> Karl-Wiechert-Allee 50, Roderbruchstraße 21 and 26 as well as infant daycare centre, Karl-Wiechert-Allee 57, Hannover

<sup>3</sup> Radiative Forcing Index: 2.7

# 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 and the strategic principles please see the section entitled “Our strategy” on page 14 et seq.

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:

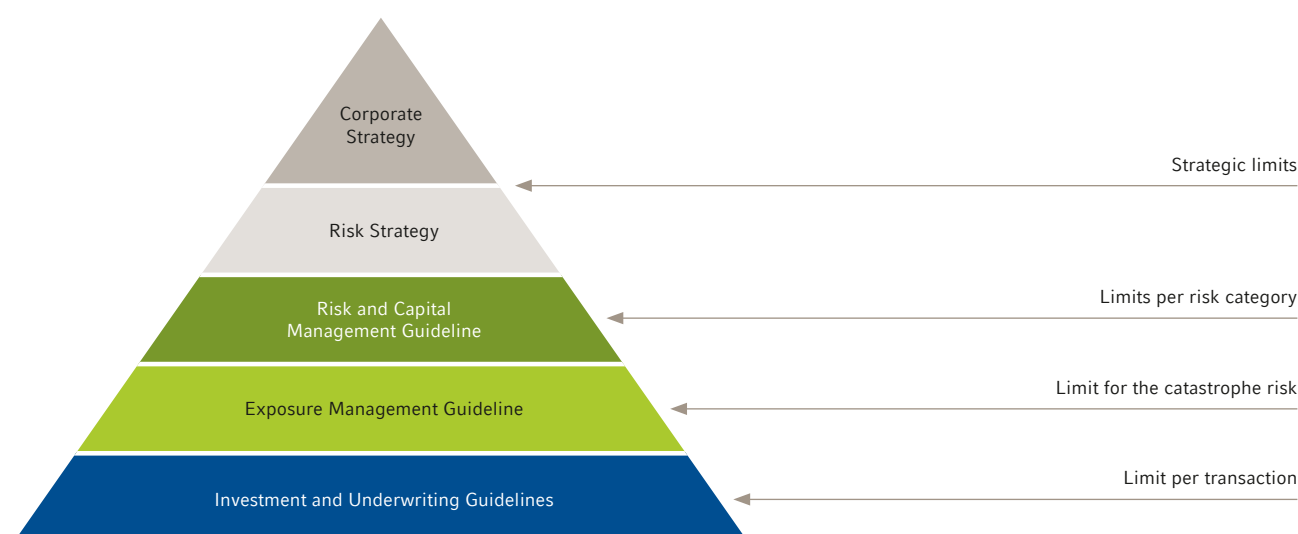
- We manage risks actively.
- We maintain an adequate level of capitalisation.
- We are committed to sustainability, integrity and compliance.

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 adhere 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

M45



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

M46

	Limit	31.12.2016
Probability of positive net income under IFRS	> 90%	98.1%
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:** Effective 1 January 2016 the new insurance supervisory regime Solvency II entered into force. Hannover Re implemented the extensive standards relating to capital requirements, governance and reporting in a timely manner.

Hannover Re received approval from the regulatory authorities to calculate its solvency requirements using a partial internal capital model when Solvency II entered into effect. The model approved by regulators covers the underwriting, market and counterparty default risks that are most relevant to enterprise management. Our internal capital model enables us to optimally map the risk structure of our reinsurance business and our investments, which would not be possible using a standard model. Regulatory approval also means that the risks can be better reflected when determining the regulatory capital requirements. Our internal target capitalisation with a confidence level of 99.97% comfortably exceeds the target level of 99.5% set by Solvency II, thereby ensuring a comfortable level of capital adequacy under Solvency II if the internal target is achieved. Our next step will be a full internal capital model that also includes the operational risks.

We comprehensively fulfilled the supervisory reporting requirements, inter alia by compiling a Day 1 report and a report on the Own Risk and Solvency Assessment (ORSA) for Hannover Rück SE and other European insurance companies within 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:** Another 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 move by the European Central Bank to extend its purchases of corporate bonds and the United Kingdom's decision to leave the European Union led to a further drop in interest rates (in the United Kingdom). For further information please see the "Investments" section of the management report on page 51 et seq.



## 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 our central tool. The internal capital model of the Hannover Re Group is a stochastic enterprise model. It covers all subsidiaries and business groups of the Hannover Re Group. The central variable in risk and enterprise management is the economic capital, 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 capital. 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 publicly 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.

The capitalisation prescribed by regulatory requirements diverges from the capitalisation shown in accordance with the Hannover Re Group's internal capital model. In the first place, non-controlling interests cannot be fully recognised according to Solvency II parameters, while on the other hand the sub-risk comprised of operational risks is calculated according to the parameters of the Solvency II standard formula. The solvency ratio calculated in accordance with Solvency II stood at 230.2% as at 31 December 2016.



Hannover Re is 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 47

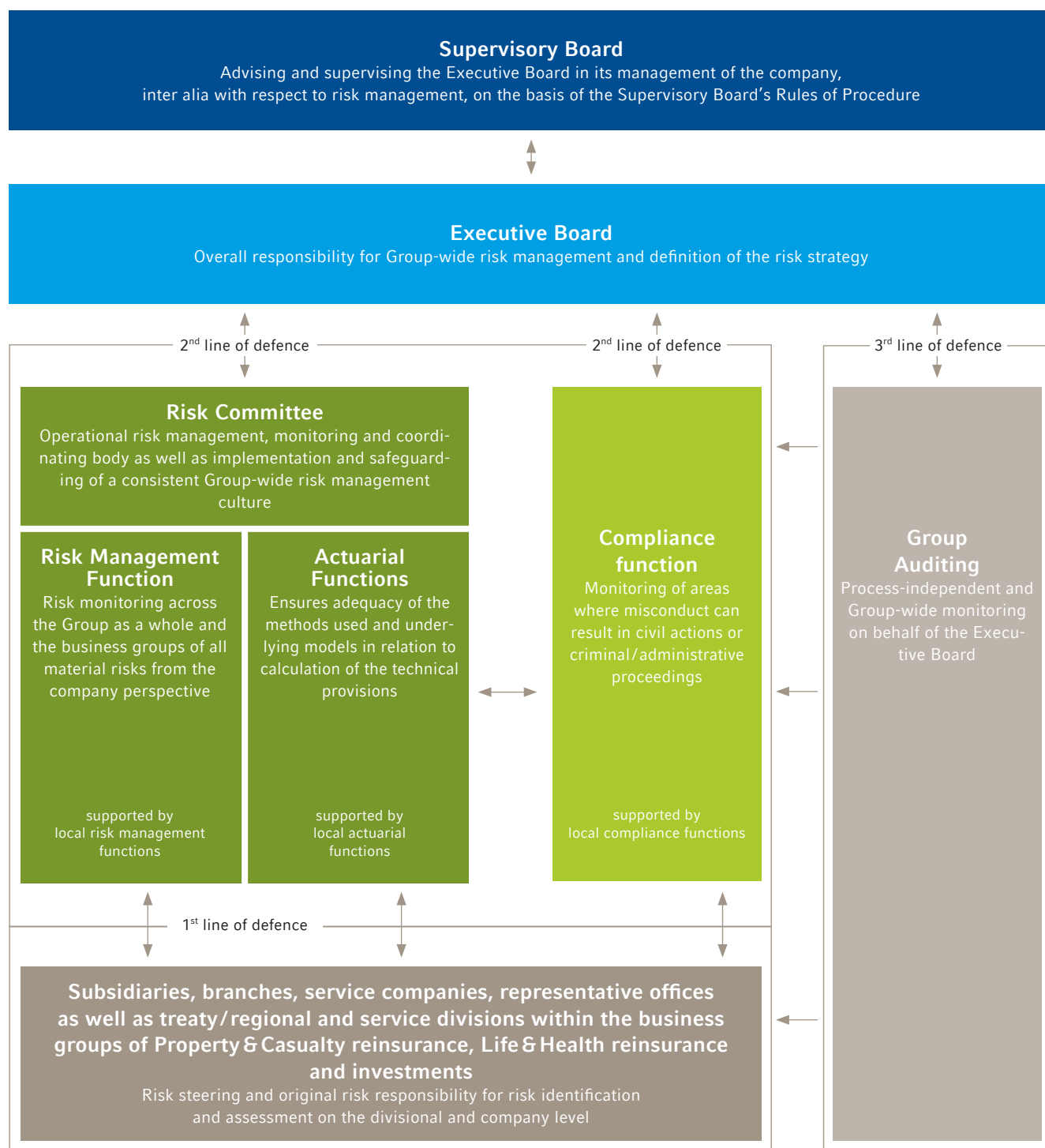
in EUR million	31.12.2016 (economic)		31.12.2016 (Solvency II)	30.9.2015 (economic)		30.9.2015 (Solvency II)
Available economic capital/Eligible capital	13,484.9		12,859.2	12,614.7		11,956.3
<b>Confidence level</b>	<b>99.97%</b>	<b>99.5%</b>	<b>99.5%</b>	<b>99.97%</b>	<b>99.5%</b>	<b>99.5%</b>
Required risk capital/ Solvency capital requirement	10,381.7	5,149.5	5,585.9	9,593.0	5,126.3	5,402.7
Excess capital	3,103.2	8,335.4	7,273.3	3,021.7	7,488.4	6,553.6
Capital adequacy ratio	129.9%	261.9%	230.2%	131.5%	246.1%	221.3%

The figures shown above refer to the Hannover Re Group. In addition, Hannover Rück SE is also subject to regulatory capital requirements; these were clearly fulfilled with a solvency ratio of 242.6 % as at 31 December 2016. 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 this regard particular mention was made of 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.



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.

## 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 how much of this is to be used for covering all material 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 the Hannover Re risk 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 task of Group 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 will be supplemented in the context of Solvency II implementation by further reports, including for example the "Regular Supervisory Report" (RSR) and the "Solvency and Financial Condition Report" (SFCR, from 2017 onwards). In recent years Hannover Re has already made every effort to include the foreseeable contents of the public SFCR in its IFRS reporting.

## 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 entire 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:

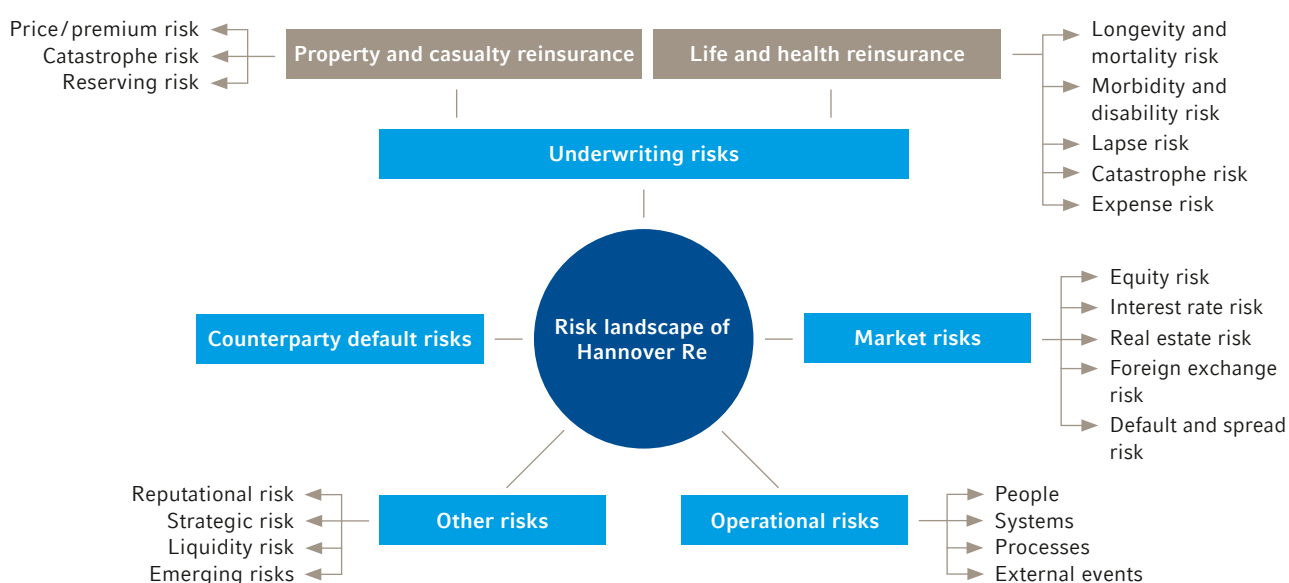
- underwriting risks in property & casualty and life & health reinsurance which originate from our business activities and manifest themselves inter alia in fluctuations in loss estimates as well as in unexpected catastrophes and changes in biometric factors such as mortality,
- market risks which arise 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

M49



## 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 increased to EUR 13,484.9 million as at 31 December 2016 compared to EUR 12,614.7 million as at 30 September 2015. This was due principally to the successful business performance in the last five quarters as well as positive effects from the weakening of the euro against our major foreign currencies, in particular the US dollar. The economic valuation of the technical provisions is largely stable relative to the position as at 30 September 2015. The change in the other items derives primarily from an increased valuation of the subordinated liabilities attributable principally to the decline in Eurozone interest rates. Conversely, the value of the available capital from hybrid capital also rose. The changes relating to taxes resulted from the aforementioned valuation differences as well as from refinements in accounting policies. The deduction for foreseeable dividends is higher because allowance was not made for special dividends as at 30 September 2015.

### Reconciliation (economic capital/shareholders' equity)

M50

in EUR million	31.12.2016	30.9.2015
Shareholders' equity including minorities	9,740.6	8,428.1
Adjustments for assets under own management	513.4	510.6
Adjustments for technical provisions <sup>1</sup>	3,870.6	3,791.0
Adjustments due to tax effects and other <sup>2</sup>	(1,648.8)	(1,318.6)
<b>Economic equity</b>	<b>12,475.8</b>	<b>11,411.1</b>
Hybrid capital	1,656.1	1,583.6
Foreseeable dividends	(647.0)	(380.0)
<b>Available economic capital<sup>3</sup></b>	<b>13,484.9</b>	<b>12,614.7</b>

<sup>1</sup> Adjustments for technical provisions including risk margin

<sup>2</sup> In contrast to the Annual Report 2015 the deduction of foreseeable dividends is not included in this position, but shown separately.

<sup>3</sup> The figures are based on the Solvency II reporting as of 31 December 2016. The related audits are at present (not fully) completed.

The required risk capital of the Hannover Re Group at the target confidence level of 99.5% rose slightly to EUR 5,149.5 million as at 31 December 2016, compared to EUR 5,126.3 million as at 30 September 2015. The bulk of the increase was due to the weaker euro against our major foreign currencies and the associated higher foreign-currency volumes underlying the risks, including for example the volume of investments. These increases in volume driven by exchange rate movements caused the risk capital to climb in all risk categories.

The elevated risk in relation to market risks was not only volume-driven but also reflected the higher allocation of equity in the investment portfolio. As a further factor, the exchange rate risk increased owing to a larger proportion of own funds held in US dollars.

The underwriting risks in property and casualty reinsurance increased primarily on account of higher catastrophe risks, which can be attributed above all to the stronger US dollar. The underwriting risks in life and health reinsurance remained largely stable. Counterparty default risks increased principally as a result of a larger volume with respect to ceding companies and retrocessionaires.

The model for operational risks was revised. The stand alone operational risk rose as a consequence of the model change, although the new model also makes explicit allowance for diversification effects with other risk categories. All in all, the model change for operational risks therefore led to a decrease in the total required risk capital.

The increase in the tax effects reflects model refinements relating to the calculation of the loss-absorbing effect of taxes.



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

M51

in EUR million	31.12.2016	30.9.2015
	Confidence level 99.5%	Confidence level 99.5%
Underwriting risk property and casualty reinsurance	3,552.9	3,408.9
Underwriting risk life and health reinsurance	2,117.9	2,109.6
Market risk	4,225.4	3,903.1
Counterparty default risk	296.5	279.9
Operational risk	503.9	431.1
Diversification	(3,773.8)	(3,329.5)
Tax effects	(1,773.3)	(1,676.8)
<b>Required risk capital of the Hannover Re Group</b>	<b>5,149.5</b>	<b>5,126.3</b>



## 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<sup>1</sup> for underwriting risks property and casualty

M52

in EUR million	31.12.2016	30.9.2015
Premium risk (including catastrophe risk)	2,470.4	2,237.4
Reserve risk	2,281.8	2,292.5
Diversification	(1,199.3)	(1,121.0)
<b>Underwriting risk property and casualty</b>	<b>3,552.9</b>	<b>3,408.9</b>

<sup>1</sup> 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<sup>1</sup> for the four largest natural hazards scenarios

M53

in EUR million	2016	2015
Hurricane US/Caribbean	1,477.3	1,338.0
Earthquake US West Coast	1,035.8	1,103.9
Winter storm Europe	698.8	828.6
Earthquake Japan	750.4	780.0

<sup>1</sup> 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 the utmost importance to a conservative reserving level and therefore traditionally have a high confidence level (> 50%). 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 7,413.6 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 198 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.

in EUR million	2016			2015		
	Individual loss reserves	IBNR reserves	Survival ratio in years	Individual loss reserves	IBNR reserves	Survival ratio in years
Asbestos-related claims/ pollution damage	35.5	210.5	24.6	36.0	203.3	26.9

In order to partially hedge inflation risks Hannover Re holds inflation-linked instruments in its portfolio that protect parts of the loss reserves against inflation risks. 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. This inflation protection was initially ensured by way of inflation swaps. From 2012 onwards we also increasingly obtained parts of the inflation protection for our loss reserves by purchasing bonds with inflation-linked coupons and redemption amounts. In 2015 the inflation protection was converted to the exclusive use of such bonds.

Licensed scientific simulation models, supplemented by the expertise of our own specialist departments, are used to assess our material catastrophe risks from natural hazards (especially earthquake, windstorm and flood). Furthermore, we establish the risk to our portfolio from various scenarios in the form of probability distributions. The monitoring of the risks resulting from natural hazards is rounded out by realistic extreme loss scenarios.

#### Stress tests for natural catastrophes after retrocessions M55

Aggregate annual loss <sup>1</sup> in EUR million	2016	2015
	Effect on forecast net income	
<b>Winter storm Europe</b>		
100-year loss	(391.4)	(469.6)
250-year loss	(541.4)	(570.1)
<b>Hurricane US/Caribbean</b>		
100-year loss	(850.3)	(772.7)
250-year loss	(1,139.4)	(1,003.7)
<b>Typhoon Japan</b>		
100-year loss	(223.9)	(204.7)
250-year loss	(281.9)	(265.1)
<b>Earthquake Japan</b>		
100-year loss	(363.1)	(343.7)
250-year loss	(623.5)	(606.0)
<b>Earthquake US West Coast</b>		
100-year loss	(440.6)	(519.4)
250-year loss	(795.4)	(823.2)
<b>Earthquake Australia</b>		
100-year loss	(201.0)	(202.8)
250-year loss	(432.3)	(400.6)

<sup>1</sup> Converted to aggregate annual loss on grounds of consistency with the limit and threshold system for the natural catastrophe risk and the corresponding analyses (see tables M54 and M57)

The previous approach (based on the maximum annual loss) was replaced in 2016 with an approach based on the aggregate annual loss. The figures for 2015 were recalculated retroactively using this approach. This changeover was motivated by the fact that our limit and threshold system for the natural catastrophe risk is geared to the aggregate annual loss and not individual losses. This is applicable both to the global and local risk measures and to the underwriting capacities. To this extent, the new approach is consistent with the approaches in natural catastrophe risk management and with the analysis of the required risk capital on page 82.

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 capital that is available to cover risks from natural perils. This is a key basis for our underwriting approach in this segment. 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

M56

in EUR million	Limit 2016	Threshold 2016	Actual utilisation (July 2016)
All natural catastrophe risks <sup>1</sup>			
200-year aggregate annual loss	1,827	1,645	1,519

<sup>1</sup> Loss relative to the underwriting result

Net expenditure on major losses in the year under review amounted to EUR 626.6 million (EUR 572.9 million). Our company incurred the following catastrophe losses and major claims in the 2016 financial year:

#### Catastrophe losses and major claims<sup>1</sup> in 2016

M57

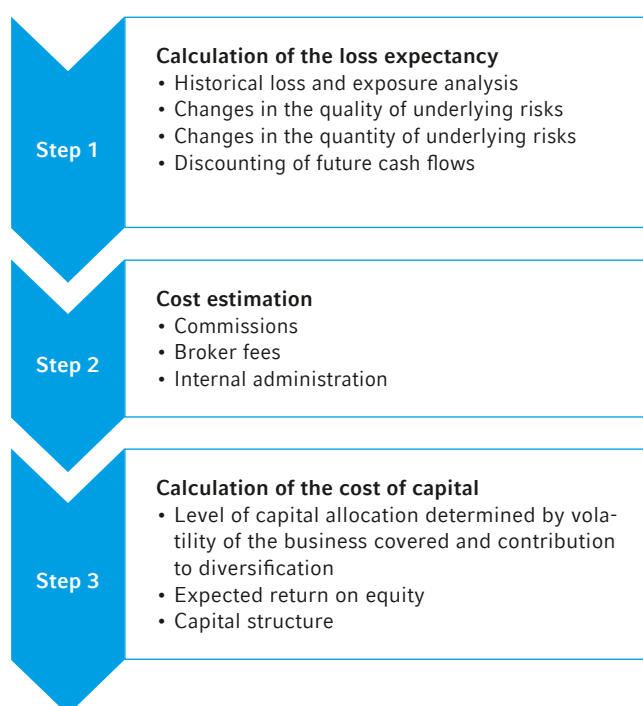
in EUR million	Date	gross	net
Forest fires, Canada	30 April – 5 May 2016	190.8	127.9
4 marine claims		124.6	66.5
4 property claims		116.0	97.3
Hurricane "Matthew", Caribbean, United States	3–8 October 2016	91.3	70.3
Earthquake, New Zealand	13 November 2016	85.2	56.3
Earthquake, Ecuador	16–17 April 2016	59.3	58.3
1 credit claim		35.2	35.2
Earthquake, Japan	14 April 2016	21.7	20.3
Earthquake, Taiwan	6 February 2016	21.6	19.2
Storm "Elvira", Germany, France	27–28 May 2016	18.5	11.9
Storms/hail, Netherlands, Germany	22–23 June 2016	18.2	9.2
Hail, Canada	30 July 2016	15.1	9.1
Severe weather/flooding, China	1 June–31 July 2016	13.2	13.2
1 aviation claim		12.3	11.1
Typhoon "Meranti", Taiwan, China	13–14 September 2016	12.2	12.2
Severe weather/hail, United States	10–16 April 2016	11.4	8.4
<b>Total</b>		<b>846.5</b>	<b>626.6</b>

<sup>1</sup> 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

M58



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 2016 and prior years is shown in the table below:

#### Combined and catastrophe loss ratio

M59

in %	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Combined ratio (property and casualty reinsurance)	93.7	94.4	94.7	94.9	95.8	104.3	98.2	96.6	95.4	99.7
Thereof catastrophe losses <sup>1</sup>	7.8	7.1	6.1	8.4	7.0	16.5	12.3	4.6	10.7	6.3

<sup>1</sup> 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 199 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 has continued to grow and 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<sup>1</sup> for underwriting risks life and health reinsurance

M60

in EUR million	31.12.2016	30.9.2015
Mortality risk	1,637.4	1,617.4
Longevity risk	1,331.6	1,314.8
Morbidity and disability risk	395.0	371.3
Lapse risk	603.2	646.6
Expense risk <sup>2</sup>	271.7	172.3
Diversification	(2,121.0)	(2,012.8)
<b>Underwriting risk life and health</b>	<b>2,117.9</b>	<b>2,109.6</b>

<sup>1</sup> Required risk capital at a confidence level of 99.5%

<sup>2</sup> Expense risk is now shown separately. Previously, expense risk was included in the total underwriting risk life and health figure, only.

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). 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. The actuarial reports and documentation required by local regulators 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. 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<sup>1</sup> for market risks

M61

in EUR million	31.12.2016	30.9.2015
Default and spread risk	2,827.9	2,777.4
Interest rate risk	1,179.1	761.9
Foreign exchange risk	1,296.5	874.7
Equity risk <sup>2</sup>	1,283.5	1,109.5
Real estate risk	526.3	436.9
Diversification	(2,887.9)	(2,057.3)
<b>Market risk</b>	<b>4,225.4</b>	<b>3,903.1</b>

<sup>1</sup> Required risk capital at a confidence level of 99.5%

<sup>2</sup> Including Private Equity

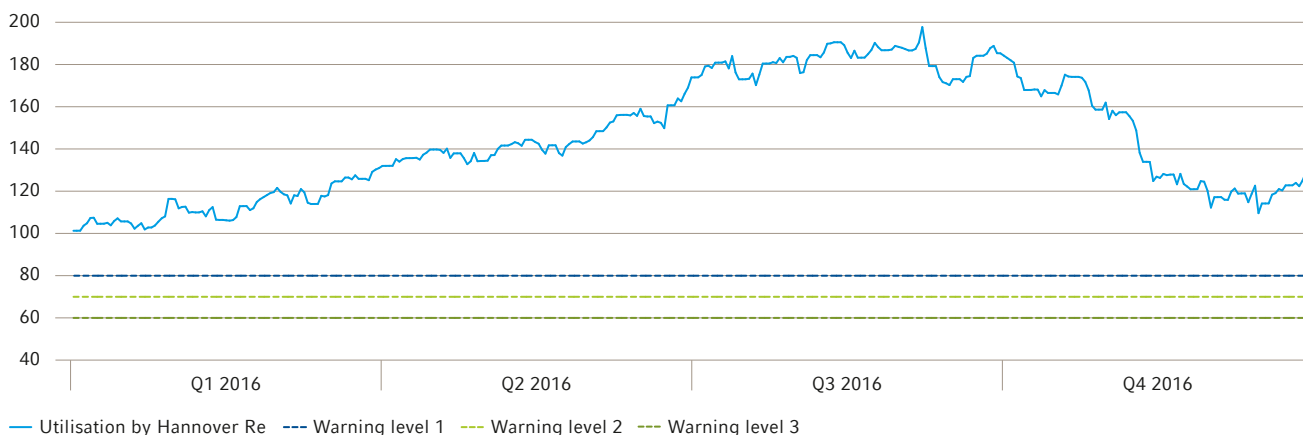
With a view to preserving the value of our assets under own management, we constantly monitor adherence to a trigger mechanism based on a clearly defined traffic light system that is applied across all portfolios. This system defines clear thresholds and escalation channels for the cumulative fluctuations 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, in particular, saw highly volatile movements across the most important investment currencies over the course of the year under review. Despite its conservative posture our investment portfolio benefited substantially from these developments. Even though the very high levels of hidden reserves recorded above all in the third quarter decreased at year-end owing to rising interest rates in our main currency areas, a significant increase in hidden reserves was nevertheless 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 in %

M62

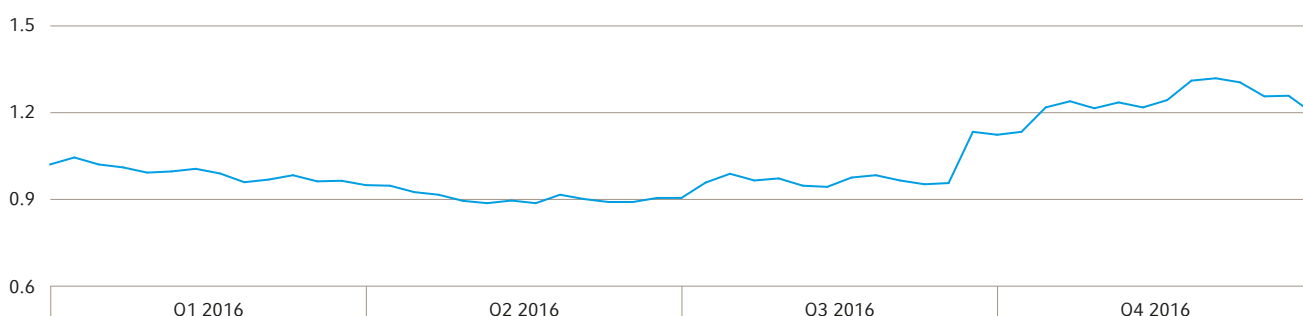


The short-term loss probability measured as the “Value at Risk” (VaR) is another vital tool used for monitoring and managing market price risks. It is calculated on the basis of historical data, e.g. the volatility of the securities positions under own management and the correlation between these risks. 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 1.2% (1.0%) as at the end of the reporting period.

## Value at Risk<sup>1</sup> for the investment portfolio of the Hannover Re Group in %

M63



<sup>1</sup> 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

M64

in EUR million	Scenario	Portfolio change on a fair value basis	Change in equity before tax
Equity securities and private equity	Share prices -10%	-168.7	-168.7
	Share prices -20%	-337.5	-337.5
	Share prices +10%	+168.7	+168.7
	Share prices +20%	+337.5	+337.5
Fixed-income securities	Yield increase +50 basis points	-903.5	-808.3
	Yield increase +100 basis points	-1,760.1	-1,575.0
	Yield decrease -50 basis points	+934.6	+834.5
	Yield decrease -100 basis points	+1,912.3	+1,707.0
Real estate	Real estate market values -10%	-194.4	-73.3
	Real estate market values +10%	+194.4	+43.6

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 176 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. In addition to the holdings acquired in the course of the previous year, we again acted on market opportunities at the start of the year under review to rebuild a broadly diversified equity portfolio. Please see our comments in section 6.1 of the notes entitled “Investments under own management” on page 176 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 184 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 downside 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 and the United States; 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<sup>1</sup>

M65

Rating classes	Government bonds		Securities issued by semi-governmental entities <sup>2</sup>		Corporate bonds		Covered bonds/asset-backed securities	
	in %	in EUR million	in %	in EUR million	in %	in EUR million	in %	in EUR million
AAA	76.8	8,952.8	65.6	4,711.0	1.0	131.3	67.1	2,460.2
AA	11.5	1,332.5	27.9	2,000.8	13.4	1,732.9	14.1	518.5
A	6.2	725.7	2.3	166.0	35.5	4,606.3	5.4	196.2
BBB	4.1	478.2	1.2	82.5	41.6	5,397.3	9.4	343.0
<BBB	1.4	165.7	3.0	212.6	8.5	1,109.2	4.0	147.9
<b>Total</b>	<b>100.0</b>	<b>11,654.9</b>	<b>100.0</b>	<b>7,173.0</b>	<b>100.0</b>	<b>12,976.9</b>	<b>100.0</b>	<b>3,665.8</b>

<sup>1</sup> Securities held through investment funds are recognised pro rata with their corresponding individual ratings.

<sup>2</sup> 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 4,001.9 million of the corporate bonds held by our company were issued by entities in the financial sector. Of this amount, EUR 3,288.9 million was attributable to banks. The vast majority of these bank bonds (72.1%) 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 required risk capital for counterparty defaults with the confidence level of 99.5% amounted to EUR 296.5 million as at 31 December 2016.

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

M66

in %	2016	2015	2014	2013	2012
Hannover Re Group	89.3	87.0	87.6	89.0	89.8
Property and casualty reinsurance	88.5	89.3	90.6	89.9	90.2
Life and health reinsurance	90.4	84.2	83.9	87.7	89.3

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 clients, 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.

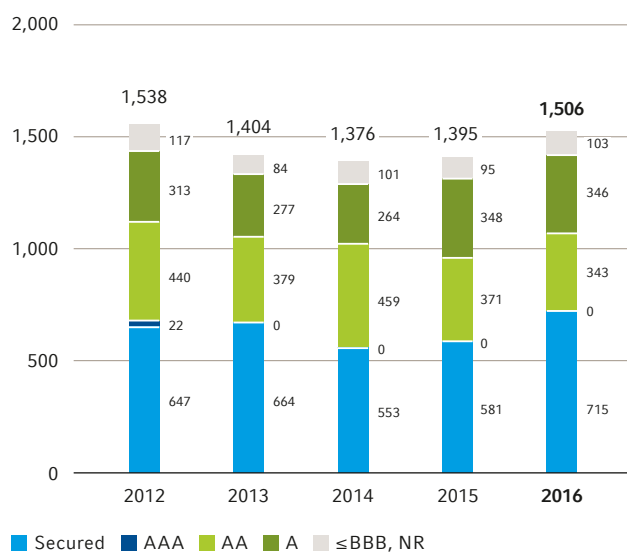
47.5% of our recoverables from reinsurance business are secured by deposits or letters of credit. For the majority of our retrocessionaires we also function as reinsurer, meaning that in most cases recoverables can potentially be set off against our own liabilities. In terms of the Hannover Re Group's major companies, EUR 218.7 million (5.9%) of our accounts receivable from reinsurance business totalling EUR 3,678.0 million were older than 90 days as at the balance sheet date.

The average default rate from retrocessions over the past four years was 0.01%.

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 1,506.3 million (previous year: EUR 1,395.3 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 67  
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 192 et seq., section 6.6 “Other assets” on page 195 et seq. and section 7.2 “Investment result” on page 215 et seq.

## 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.

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 and is used to calculate the capital commitment in our internal capital model. The assessment process was refined even further in the context of the model change for operational risks.

### Required risk capital<sup>1</sup> for operational risks

M 68

in EUR million	31.12.2016	30.9.2015
Operational risk	503.9	431.1

<sup>1</sup> 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 data quality), compliance risks, risks associated with the outsourcing of functions (including our distribution channels), fraud risks, personnel risks, information/IT security risks and business interruption risks.

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, especially in risk management, because – among other things – the validity of the results delivered by the internal capital model depends primarily on the data provided.

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. Regulatory compliance, compliance with the company's Code of Conduct, data privacy and compliance with anti-trust and competition laws have been defined as issues of particular relevance to compliance. The compliance risk also

extends to tax and legal risks. 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 233 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 in a crisis situation). Regular risk reporting to the Risk Committee and the Executive Board has also been put in place.

## Other risks

Of material importance to our company in the category of other risks are primarily emerging risks, strategic risks, reputational risks and liquidity risks.

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. Further details on the topic of strategy are provided in the section entitled “Our strategy” on page 14 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 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 6.3 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.

## 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 124 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 conducted 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.



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 94 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.

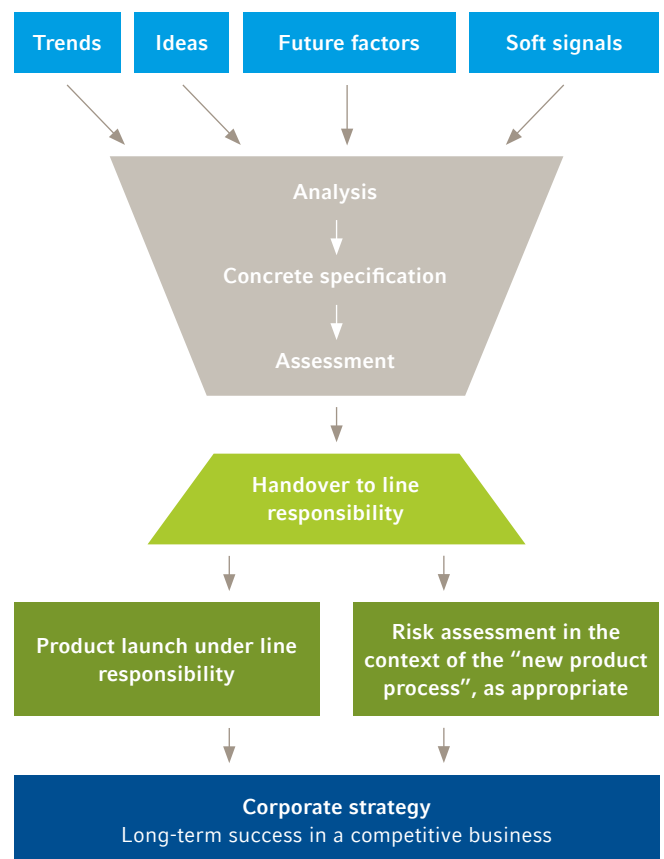
### Cyber risks

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

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## 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 153% 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 59 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 60. 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 124 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](http://www.hannover-re.com/50889/corporate-governance-principles.pdf)). 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 5 May 2015 – 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)

The Executive Board and Supervisory Board of Hannover Rück SE declare pursuant to § 161 Stock Corporation Act (AktG) that – with the following divergences – the company was and continues to be in conformity with the recommendations made by the Government Commission on the German Corporate Governance Code published by the Federal Ministry of Justice on 12 June 2015 in the official section of the Federal Gazette:

### Code Item 4.2.3 Para. 2; Caps on the amount of variable compensation elements in management board contracts

Item 4.2.3 Para. 2 Sentence 6 of the Code recommends that there should be a maximum limit on the amount of variable compensation paid to members of the management board.

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 Item 4.2.3 Para. 2.

#### **Code Item 4.2.3 Para. 4; Caps on severance payments in management board contracts**

Pursuant to Item 4.2.3 Para. 4 of the Code, when management board contracts are concluded care should be taken to ensure that payments made to a member of the management board upon premature termination of his or her contract of service do not exceed a certain amount.

Premature termination of a service contract 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 this recommendation.

#### **Code Item 5.2 Para. 2; Chair of the Audit Committee**

Pursuant to Code Item 5.2 Para. 2, the Chair of the Supervisory Board shall not chair the Audit Committee.

The current Chairman of the Supervisory Board of Hannover Rück SE served as the company's Chief Financial Officer in the period from 1994 to 2002. 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 Chairman of the Supervisory Board is optimally suited to chairing the Audit Committee. In the opinion of Hannover Rück SE, it is therefore in the interest of the company to diverge from this recommendation.

#### **Code Item 5.3.2; Independence of the Chair of the Audit Committee**

Item 5.3.2 Sentence 3 of the Code recommends that the Chair of the Audit Committee should be independent.

The current Chairman of the Finance and Audit Committee is at the same time also the Chairman of the Board of Management of the controlling shareholder and hence cannot be considered independent. As already explained in advance in the justification for divergence from Code section 5.2 Para. 2, the current Chairman of the Supervisory Board is, however, optimally suited to chairing the Finance and Audit Committee. This assessment is also not cast into question by the fact that the Committee Chairman cannot therefore 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 more than ten 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 this recommendation.

Hannover, 9 November 2016

Executive Board, 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](http://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 Sustainability Strategy for the years 2015–2017 to the changing economic framework conditions. The current Sustainability Strategy defines four action fields and specifies concrete goals and measures that are to be implemented in the strategy cycle.

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. The mentoring programme launched in 2012, for example, brings female members of staff together with seasoned senior executives for a purposeful, regular dialogue and is intended to help these female employees to actively shape their future career path. 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](http://www.hannover-re.com/60729/sustainability)).

## Targets pursuant to §§ 76 Para. 4, 111 Para. 5 Stock Corporation Act

In accordance with the Act for the Equal Participation of Women and Men in Leadership Positions in the Private Sector and the Public Sector, the Supervisory Board of the company was required by 30 September 2015 to define a target quota for women on the Supervisory Board and Executive Board of the company in the period until 30 June 2017. 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 define within the specified period – without prejudice to possible decisions to the contrary that may be taken as warranted when the time comes – a target quota for women on the Supervisory Board of 30% and an anticipated continued quota of zero for the Executive Board. Should events result in the currently unforeseeable appointment of a new member of the Executive Board, the Supervisory Board shall give preference to a potential female candidate in case of equal personal aptitude and professional qualifications. The company's Executive Board defined a target quota of 16.8% with the same deadline for the two levels of senior management below the Executive Board.

## 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 by the shareholders at the Annual General Meeting, three members are appointed by the Employee Council. 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 241 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, four of the six shareholder representatives are independent as defined by Item 5.4.2 of the German Corporate Governance Code. 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.

In 2015 the Supervisory Board carried out an efficiency audit of its work as part of a regular procedure. A comprehensive survey covered a range of topics including, among other things, organisational aspects relating to the Supervisory Board and

the course of its meetings, the cooperation between the Executive Board and the Supervisory Board and the supply of information to the Supervisory Board. The findings were presented and discussed at the first Supervisory Board meeting held in 2016. Various optimisations were made as a result, most notably relating to the provision of information.

### **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 interim reports as well as the semi-annual reports 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 and those considered equivalent pursuant to § 89 Para. 3 Stock Corporation Act as well as for approving contracts with Supervisory Board members in accordance with § 114 Stock Corporation Act. It exercises the powers arising out of § 112 Stock Corporation Act 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 238 to 240.

## 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 2016 calendar year will be submitted to the Finance and Audit Committee in March 2017. 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 2016 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 73 et seq.

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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 pursuant to Item 6.2 of the German Corporate Governance Code,
- Shareholdings pursuant to Item 6.2 of the German Corporate Governance Code.

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 227 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](http://www.hannover-re.com/200801/declaration-of-conformity)).

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## 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 2016 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 2016 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 July 2016 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

M70

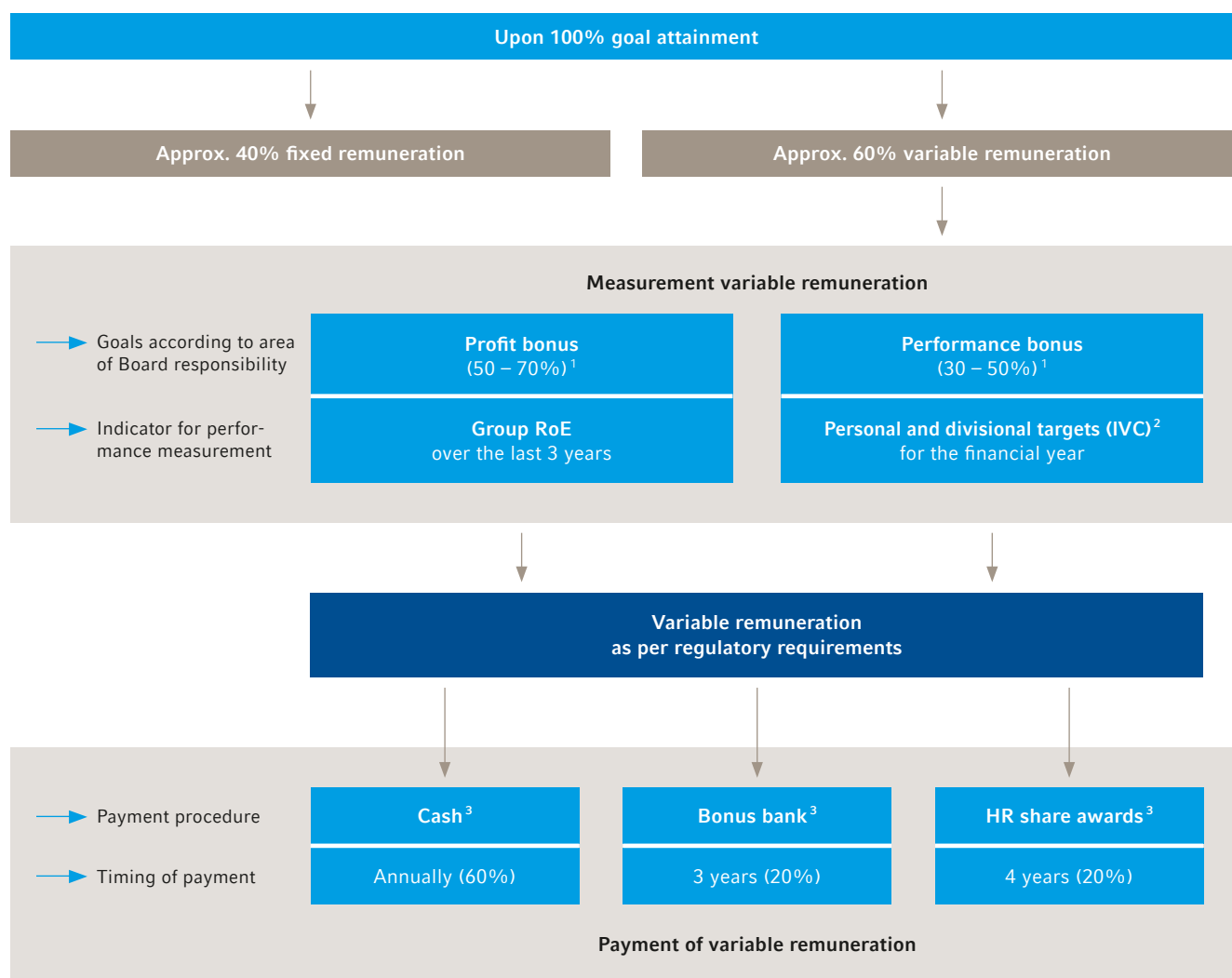
Components	Measurement basis/ parameters	Condition of payment	Paid out
Basic remuneration;  Non-cash compensation, fringe benefits: Accident, liability and luggage insurance, company car for business and – if desired – personal use (tax on the non-cash benefit payable by the Board member), reimbursement of travel expenses and other expenditures incurred in the interest of the company	Function, responsibility, length of service on the Executive Board  Remuneration reviewed by the Supervisory Board normally at two-year intervals. Since 2014 gradual conversion of Executive Board contracts: review of annual fixed salary during the contract period no longer applies.	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.



<sup>1</sup> 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)

<sup>2</sup> 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

<sup>3</sup> Split defined by legal minimum requirements

**Measurement bases/conditions of payment for variable remuneration**
**M72**

Component	Measurement basis/parameters	Condition of payment
<b>Profit bonus</b>		
Proportion of variable remuneration: Chief Executive Officer/Chief Financial Officer: 70%; Board member with divisional responsibility: 50%	<p>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.</p> <p>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 9.7%. Goal attainment can amount to a maximum of 200% and a minimum of -100%.</p> <p>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.</p> <p>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.</p>	<p>Contractual stipulations</p> <p>Attainment of three-year targets</p> <p>Decision of the Supervisory Board</p> <p>In view of the market interest rate the Supervisory Board decided on 9 March 2016 that the risk-free interest rate, which was set at an agreed level of 1.8% for the previous year, will be adjusted annually.</p>
<b>Performance bonus</b>	<p>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.</p>	

Component	Measurement basis/parameters	Condition of payment
<b>Divisional bonus</b> 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)).	Attainment of three-year targets
	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%.	Contractual agreement
	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 <sup>1</sup> ).	Decision of the Supervisory Board according to its best judgement
	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.	
<b>Individual bonus</b> Proportion of variable remuneration: Chief Executive Officer/Chief Financial Officer: 30%; Board member with divisional responsibility: 25%	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.	
	Personal qualitative, quantitative targets; individual contribution to the overall result, leadership skills, innovative skills, entrepreneurial skills, specific features of area of responsibility.	Attainment of annual targets
	The individual bonus for goal attainment of 100% is contractually stipulated. Over- and underfulfilment result in additions/deductions.	Decision by the Supervisory Board according to its best judgement.
	The minimum individual bonus amounts to EUR 0 and the maximum is double the bonus payable upon complete goal attainment.	

<sup>1</sup> 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 24 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

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Short-term	Medium-term	Long-term
<b>60% of the variable remuneration with the next monthly salary payment</b> following the Supervisory Board resolution	<b>20% of the variable remuneration in the bonus bank;</b>  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 <b>virtual Hannover Re share awards (HR-SAs)</b> with a value equivalent to 20% of the variable remuneration;  payment of the value calculated at the payment date after a <b>vesting period of four years</b> ;  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.
<b>Negative variable total bonus = payment of EUR 0 variable remuneration.</b> <b>Any minus value of the variable total bonus for a financial year is transferred in full to the bonus bank (see "Medium-term" column).</b>		

## 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 2016 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 0.7 million (previous year: EUR 2.0 million) in 2016.

As at 31 December 2016 active members of the Executive Board had at their disposal a total of 39,585 (79,464) granted, but not yet exercised stock appreciation rights with a fair value of EUR 0.4 million (EUR 0.7 million).

## 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 2016 Declaration of Conformity contained in the section “Statement of enterprise management practices” on page 98 of this Group Annual Report.

If the company insists on a non-competition clause with Mr. Wallin for two years after the termination of his service contract, he shall be recompensed in a monthly amount of 50% of his most recent fixed remuneration. Income earned through the application of his working capacity elsewhere shall be counted towards this compensation insofar as such income in combination with the compensation exceeds 100% of the most recently received fixed remuneration. The non-competition clause shall not apply if the contract ends prior to the age of 65 because the company does not extend it or because Mr. Wallin declines an extension offered to him on what are for him inferior terms, or if the premature termination or non-extension is due to a compelling reason for which the company is responsible.

## 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 0.3 million (EUR 0.7 million).

**Total remuneration of the active members of the Executive Board pursuant to DRS 17**
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Name	Financial year	Non-performance-based remuneration		Performance-based remuneration <sup>1</sup>	
		Basic salary	Non-cash com- pensation/fringe benefits <sup>2</sup>	Short-term	
				Variable remuneration payable	
				60% <sup>3</sup>	Netted remuneration from seats with Group bodies
in EUR thousand					
Ulrich Wallin	2016	596.4	14.2	788.0	
	2015	596.4	14.8	650.4	
Sven Althoff	2016	280.0	15.6	419.0	
	2015	280.0	14.8	334.2	
Claude Chèvre	2016	380.0	13.6	476.8	
	2015	380.0	12.8	440.1	
Jürgen Gräber	2016	445.1	7.1	615.3	
	2015	445.1	18.1	508.1	
Dr. Klaus Miller	2016	356.1	1.2	400.8	
	2015	356.1	3.7	366.5	
Dr. Michael Pickel	2016	356.1	12.6	478.0	
	2015	356.1	12.0	402.1	
Roland Vogel	2016	422.9	17.0	450.6	58.2
	2015	422.9	14.8	372.5	38.6
Total	2016	2,836.6	81.3	3,628.5	58.2
Total	2015	2,836.6	91.0	3,073.9	38.6

<sup>1</sup> As at the balance sheet date no Board resolution was available regarding the performance-based remuneration for 2016.

The variable remuneration is recognised on the basis of estimates and the provisions constituted accordingly.

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

<sup>3</sup> In 2016 EUR 328,400 more in variable remuneration was paid out to Board members for 2015 than had been reserved.

<sup>4</sup> The nominal amount is stated; full or partial repayment in 2020, depending on the development until such time of the balance in the bonus bank. In 2016 altogether EUR 109,500 more than had been originally reserved was allocated to the bonus bank for 2015.

<sup>5</sup> 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 2021 at the prevailing share price of Hannover Re. In 2016 nominal amounts of EUR 109,500 more than had been originally reserved were used as a basis for allocation of the 2015 share awards.

<sup>6</sup> In order to calculate the number of share awards for 2016 reference was made to the Xetra closing price of the Hannover Re share on 30 December 2016 (EUR 102.80). 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 2017. The applicable market price of the Hannover Re share had decreased from EUR 105.65 (30 December 2015) to EUR 97.64 by the allocation date (17 March 2016) of the share awards for 2015; the share awards actually allocated for 2015 are shown here, not those estimated in the 2015 Annual Report.



	Performance-based remuneration <sup>1</sup>		Total	Number of share awards <sup>6</sup>  2015 = Actual 2016 = Estimate
	Medium-term	Long-term		
	Bonus bank	Share awards		
	20% (allocation) <sup>4</sup>	20% (allocation) <sup>5</sup>		
in EUR thousand				
	<b>262.7</b>	<b>262.7</b>	<b>1,924.0</b>	<b>2,305</b>
	216.8	216.8	1,695.2	2,450
	<b>139.7</b>	<b>139.7</b>	<b>994.0</b>	<b>1,215</b>
	110.8	112.1	851.9	1,238
	<b>158.9</b>	<b>158.9</b>	<b>1,188.2</b>	<b>1,492</b>
	146.7	146.7	1,126.3	1,584
	<b>205.1</b>	<b>205.1</b>	<b>1,477.7</b>	<b>1,733</b>
	169.3	169.3	1,309.9	1,826
	<b>133.6</b>	<b>133.6</b>	<b>1,025.3</b>	<b>1,254</b>
	122.1	122.1	970.5	1,332
	<b>159.3</b>	<b>159.3</b>	<b>1,165.3</b>	<b>1,387</b>
	134.1	134.1	1,038.4	1,412
	<b>150.2</b>	<b>150.2</b>	<b>1,190.9</b>	<b>1,318</b>
	124.2	124.2	1,058.6	1,402
	<b>1,209.5</b>	<b>1,209.5</b>	<b>8,965.4</b>	<b>10,704</b>
	1,024.0	1,025.3	8,050.8	11,244

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**

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Name	Year	Stock appreciation rights exercised	Change in reserve in 2016 for stock appreciation rights	Payment of share awards	Change in reserve for share awards from previous years <sup>1</sup>	Expense for share awards allocated in current financial year <sup>2</sup>	Total
in EUR thousand							
Ulrich Wallin	2016	102.6	(82.8)	608.8	(452.8)	60.5	236.3
	2015	380.4	(338.8)	0.0	633.4	79.8	754.8
Sven Althoff <sup>3</sup>	2016	44.6	(37.6)	0.0	60.9	24.1	92.0
	2015	63.6	(40.8)	0.0	131.8	41.0	195.6
Claude Chèvre	2016	–	–	56.5	106.6	40.0	146.6
	2015	–	–	0.0	215.0	30.7	245.7
Jürgen Gräber	2016	89.2	(72.0)	427.3	(308.7)	34.3	170.1
	2015	355.2	(319.0)	0.0	470.7	56.6	563.5
Dr. Klaus Miller	2016	14.9	(12.0)	329.3	(171.9)	48.4	208.7
	2015	44.6	(38.6)	0.0	336.7	34.1	376.8
Dr. Michael Pickel	2016	80.3	(64.8)	326.2	(142.3)	71.3	270.7
	2015	319.7	(287.1)	0.0	353.3	40.2	426.1
Roland Vogel	2016	44.6	(36.0)	389.7	(332.6)	26.1	91.8
	2015	164.7	(146.6)	0.0	406.5	54.1	478.7
<b>Total</b>	<b>2016</b>	<b>376.3</b>	<b>(305.2)</b>	<b>2,137.8</b>	<b>(1,240.8)</b>	<b>304.7</b>	<b>1,272.7</b>
Total	2015	1,328.2	(1,170.9)	0.0	2,547.4	336.5	3,041.2

<sup>1</sup> The change in the reserve for share awards from previous years derives from the lower market price of the Hannover Re share, the dividend approved for 2015, 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 2011.

<sup>2</sup> 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.

<sup>3</sup> The expenses for stock appreciation rights of Mr. Althoff relate to his work as a senior executive until 2014.



The following two tables show the remuneration of the Executive Board in the 2016 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)

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Benefits granted	Ulrich Wallin Chief Executive Officer				Sven Althoff Board member with divisional responsibility			
	2015	2016	2016 (Min)	2016 (Max)	2015	2016	2016 (Min)	2016 (Max)
in EUR thousand								
Fixed remuneration	596.4	596.4	596.4	596.4	280.0	280.0	280.0	280.0
Fringe benefits	14.8	14.2	14.2	14.2	14.8	15.6	15.6	15.6
<b>Total</b>	<b>611.2</b>	<b>610.6</b>	<b>610.6</b>	<b>610.6</b>	<b>294.8</b>	<b>295.6</b>	<b>295.6</b>	<b>295.6</b>
One-year variable remuneration	504.0	504.0	0.0	1,008.0	252.0	252.0	0.0	504.0
Multi-year variable remuneration	398.1	390.8	(533.2)	726.8	181.3	188.7	(148.3)	356.7
Bonusbank 2015 (2019 <sup>1</sup> )/ 2016 (2020 <sup>1</sup> )	168.0	168.0	(588.0)	336.0	84.0	84.0	(169.0)	168.0
Share Awards 2015 (2020 <sup>1</sup> )/ 2016 (2021 <sup>1</sup> ) <sup>2</sup>	168.0	168.0	0.0	336.0	84.0	84.0	0.0	168.0
Dividend on share awards for 2014 <sup>3</sup>	62.1	0.0	0.0	0.0	13.3	0.0	0.0	0.0
Dividend on share awards for 2015	0.0	54.8	54.8	54.8	0.0	20.7	20.7	20.7
<b>Total</b>	<b>1,513.3</b>	<b>1,505.4</b>	<b>77.4</b>	<b>2,345.4</b>	<b>728.1</b>	<b>736.3</b>	<b>147.3</b>	<b>1,156.3</b>
Service cost <sup>4</sup>	167.1	144.2	144.2	144.2	750.6	37.4	37.4	37.4
<b>Total remuneration</b>	<b>1,680.4</b>	<b>1,649.6</b>	<b>221.6</b>	<b>2,489.6</b>	<b>1,478.7</b>	<b>773.7</b>	<b>184.7</b>	<b>1,193.7</b>

Benefits granted	Dr. Klaus Miller Board member with divisional responsibility				Dr. Michael Pickel Board member with divisional responsibility			
	2015	2016	2016 (Min)	2016 (Max)	2015	2016	2016 (Min)	2016 (Max)
in EUR thousand								
Fixed remuneration	356.1	356.1	356.1	356.1	356.1	356.1	356.1	356.1
Fringe benefits	3.7	1.2	1.2	1.2	12.0	12.6	12.6	12.6
<b>Total</b>	<b>359.8</b>	<b>357.3</b>	<b>357.3</b>	<b>357.3</b>	<b>368.1</b>	<b>368.7</b>	<b>368.7</b>	<b>368.7</b>
One-year variable remuneration	288.0	288.0	0.0	576.0	288.0	288.0	0.0	576.0
Multi-year variable remuneration	226.9	223.1	(328.9)	415.1	227.4	224.2	(327.8)	416.2
Bonusbank 2015 (2019 <sup>1</sup> )/ 2016 (2020 <sup>1</sup> )	96.0	96.0	(360.0)	192.0	96.0	96.0	(360.0)	192.0
Share Awards 2015 (2020 <sup>1</sup> )/ 2016 (2021 <sup>1</sup> ) <sup>2</sup>	96.0	96.0	0.0	192.0	96.0	96.0	0.0	192.0
Dividend on share awards for 2014	34.9	0.0	0.0	0.0	35.4	0.0	0.0	0.0
Dividend on share awards for 2015	0.0	31.1	31.1	31.1	0.0	32.2	32.2	32.2
<b>Total</b>	<b>874.7</b>	<b>868.4</b>	<b>28.4</b>	<b>1,348.4</b>	<b>883.5</b>	<b>880.9</b>	<b>40.9</b>	<b>1,360.9</b>
Service cost <sup>4</sup>	87.3	89.0	89.0	89.0	147.1	123.4	123.4	123.4
<b>Total remuneration</b>	<b>962.0</b>	<b>957.4</b>	<b>117.4</b>	<b>1,437.4</b>	<b>1,030.6</b>	<b>1,004.3</b>	<b>164.3</b>	<b>1,484.3</b>

<sup>1</sup> Year of payment

<sup>2</sup> Maximum value when awarded, amount paid out dependent upon the share price in the year of payment and the dividends paid until such time.

<sup>3</sup> In the case of Mr. Althoff the dividend also refers to share awards from his work as a senior executive at Hannover Re.

<sup>4</sup> For details of the service cost see the table "Pension commitments" on page 119.

**Claude Chèvre**

Board member with divisional responsibility

**Jürgen Gräber**Board member with divisional responsibility  
Coordinator of worldwide property & casualty  
reinsurance

2015	2016	2016 (Min)	2016 (Max)	2015	2016	2016 (Min)	2016 (Max)
380.0	380.0	380.0	380.0	445.1	445.1	445.1	445.1
12.8	13.6	13.6	13.6	18.1	7.1	7.1	7.1
<b>392.8</b>	<b>393.6</b>	<b>393.6</b>	<b>393.6</b>	<b>463.2</b>	<b>452.2</b>	<b>452.2</b>	<b>452.2</b>
342.0	342.0	0.0	684.0	360.0	360.0	0.0	720.0
252.6	260.6	(368.5)	488.6	285.9	281.5	(408.5)	521.5
114.0	114.0	(401.1)	228.0	120.0	120.0	(450.0)	240.0
114.0	114.0	0.0	228.0	120.0	120.0	0.0	240.0
24.6	0.0	0.0	0.0	45.9	0.0	0.0	0.0
0.0	32.6	32.6	32.6	0.0	41.5	41.5	41.5
<b>987.4</b>	<b>996.2</b>	<b>25.1</b>	<b>1,566.2</b>	<b>1,109.1</b>	<b>1,093.7</b>	<b>43.7</b>	<b>1,693.7</b>
150.1	150.1	150.1	150.1	109.2	95.1	95.1	95.1
<b>1,137.5</b>	<b>1,146.3</b>	<b>175.2</b>	<b>1,716.3</b>	<b>1,218.3</b>	<b>1,188.8</b>	<b>138.8</b>	<b>1,788.8</b>

**Roland Vogel**

Chief Financial Officer

2015	2016	2016 (Min)	2016 (Max)
422.9	422.9	422.9	422.9
14.8	17.0	17.0	17.0
<b>437.7</b>	<b>439.9</b>	<b>439.9</b>	<b>439.9</b>
288.0	288.0	0.0	576.0
230.4	224.8	(303.2)	416.8
96.0	96.0	(336.0)	192.0
96.0	96.0	0.0	192.0
38.4	0.0	0.0	0.0
0.0	32.8	32.8	32.8
<b>956.1</b>	<b>952.7</b>	<b>136.7</b>	<b>1,432.7</b>
62.8	53.8	53.8	53.8
<b>1,018.9</b>	<b>1,006.5</b>	<b>190.5</b>	<b>1,486.5</b>

Allocation	<b>Ulrich Wallin</b> Chief Executive Officer		<b>Sven Althoff</b> Board member with divisional responsibility	
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in EUR thousand	2015	2016	2015	2016
Fixed remuneration	596.4	596.4	280.0	280.0
Fringe benefits	14.8	14.2	14.8	15.6
<b>Total</b>	<b>611.2</b>	<b>610.6</b>	<b>294.8</b>	<b>295.6</b>
One-year variable remuneration <sup>1</sup>	649.2	717.6	199.3	362.4
Multi-year variable remuneration	613.4	916.2	63.6	44.6
Bonus bank 2011/2012	233.0	204.8	0.0	0.0
Share Awards 2011	0.0	608.8	0.0	0.0
Stock participation rights 2009 (2013–2019 <sup>2</sup> )	72.7	0.0	14.6	0.0
Stock participation rights 2010 (2015–2020 <sup>3</sup> )	307.7	102.6	49.0	16.3
Stock participation rights 2011 (2016–2021 <sup>4</sup> )	0.0	0.0	0.0	28.3
<b>Total</b>	<b>1,873.8</b>	<b>2,244.4</b>	<b>557.7</b>	<b>702.6</b>
Service cost <sup>5</sup>	167.1	144.2	750.6	37.4
<b>Total remuneration</b>	<b>2,040.9</b>	<b>2,388.6</b>	<b>1,308.3</b>	<b>740.0</b>

Allocation	<b>Dr. Klaus Miller</b> Board member with divisional responsibility		<b>Dr. Michael Pickel</b> Board member with divisional responsibility	
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in EUR thousand	2015	2016	2015	2016
Fixed remuneration	356.1	356.1	356.1	356.1
Fringe benefits	3.7	1.2	12.0	12.6
<b>Total</b>	<b>359.8</b>	<b>357.3</b>	<b>368.1</b>	<b>368.7</b>
One-year variable remuneration <sup>1</sup>	384.0	390.0	396.0	413.4
Multi-year variable remuneration	170.6	461.5	444.4	523.8
Bonus bank 2011/2012	126.0	117.3	124.8	117.3
Share Awards 2011	0.0	329.3	0.0	326.2
Stock participation rights 2009 (2013–2019 <sup>2</sup> )	0.0	0.0	78.8	0.0
Stock participation rights 2010 (2015–2020 <sup>3</sup> )	44.6	14.9	240.8	80.3
Stock participation rights 2011 (2016–2021 <sup>4</sup> )	0.0	0.0	0.0	0.0
<b>Total</b>	<b>914.4</b>	<b>1,208.8</b>	<b>1,208.5</b>	<b>1,305.9</b>
Service cost <sup>5</sup>	87.3	89.0	147.1	123.4
<b>Total remuneration</b>	<b>1,001.7</b>	<b>1,297.8</b>	<b>1,355.6</b>	<b>1,429.3</b>

<sup>1</sup> 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 2016 financial year after the remuneration report has been drawn up.

<sup>2</sup> Stock appreciation rights were awarded in 2009, exercise option at the discretion of the Executive Board until 31 December 2019 in the following tranches: 40% from 2012, 60% from 2013, 80% from 2014, 100% from 2015 onwards.

<sup>3</sup> 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.

<sup>4</sup> 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

<sup>5</sup> For details of the service cost see the table "Pension commitments" on page 119. The service cost for 2015 includes a past service cost of EUR 704,500 for Mr. Althoff.

**Claude Chèvre**

Board member with divisional responsibility

**Jürgen Gräber**Board member with divisional responsibility  
Coordinator of worldwide property & casualty  
reinsurance

2015	2016	2015	2016
380.0	380.0	445.1	445.1
12.8	13.6	18.1	7.1
<b>392.8</b>	<b>393.6</b>	<b>463.2</b>	<b>452.2</b>
399.0	463.8	500.4	534.6
21.6	173.8	518.7	676.0
21.6	117.3	163.5	159.5
0.0	56.5	0.0	427.3
0.0	0.0	87.6	0.0
0.0	0.0	267.6	89.2
0.0	0.0	0.0	0.0
<b>813.4</b>	<b>1,031.2</b>	<b>1,482.3</b>	<b>1,662.8</b>
150.1	150.1	109.2	95.1
<b>963.5</b>	<b>1,181.3</b>	<b>1,591.5</b>	<b>1,757.9</b>

**Roland Vogel**

Chief Financial Officer

2015	2016
422.9	422.9
14.8	17.0
<b>437.7</b>	<b>439.9</b>
379.1	430.1
313.8	560.3
149.1	126.0
0.0	389.7
30.9	0.0
133.8	44.6
0.0	0.0
<b>1,130.6</b>	<b>1,430.3</b>
62.8	53.8
<b>1,193.4</b>	<b>1,484.1</b>



## **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 16 (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 25.3 million (EUR 25.0 million).

## Pension commitments

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Name in EUR thousand	Financial year	Attainable annual pension (age 65)	DBO 31.12.	Personnel expense	Annual funding contribution <sup>1</sup>	Premium
<b>Ulrich Wallin</b>	<b>2016</b>	<b>229.1</b>	<b>5,370.1</b>	<b>144.2</b>	–	–
	2015	229.1	4,532.7	167.1	–	–
<b>Sven Althoff<sup>2, 3</sup></b>	<b>2016</b>	<b>92.2</b>	<b>1,185.3</b>	<b>37.4</b>	<b>25%</b>	<b>70.0</b>
	2015	91.9	898.9	750.6	25%	42.1
<b>Claude Chèvre<sup>4</sup></b>	<b>2016</b>	<b>118.4</b>	<b>731.7</b>	–	<b>39.5%</b>	<b>150.1</b>
	2015	118.1	–	–	39.5%	150.1
<b>Jürgen Gräber</b>	<b>2016</b>	<b>182.5</b>	<b>3,731.1</b>	<b>95.1</b>	–	–
	2015	162.8	3,094.8	109.2	–	–
<b>Dr. Klaus Miller<sup>4</sup></b>	<b>2016</b>	<b>53.3</b>	<b>557.8</b>	–	<b>25%</b>	<b>89.0</b>
	2015	53.0	–	–	25%	87.3
<b>Dr. Michael Pickel</b>	<b>2016</b>	<b>135.5</b>	<b>2,509.2</b>	<b>123.4</b>	–	–
	2015	129.0	1,875.6	147.1	–	–
<b>Roland Vogel<sup>2, 5</sup></b>	<b>2016</b>	<b>94.3</b>	<b>1,623.5</b>	<b>53.8</b>	<b>25%</b>	<b>105.7</b>
	2015	94.0	1,524.2	62.8	25%	103.7
<b>Total</b>	<b>2016</b>	<b>905.3</b>	<b>15,708.7</b>	<b>453.9</b>		<b>414.8</b>
Total	2015	877.9	11,926.2	1,236.8		383.2

<sup>1</sup> Percentage of pensionable income (fixed annual remuneration as at the contractually specified reference date).

<sup>2</sup> 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.

<sup>3</sup> The personnel expenditure in 2015 includes a past service cost of EUR 704,500. The guaranteed interest rate is 3.25%.

<sup>4</sup> 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%.

<sup>5</sup> The guaranteed interest rate is 3.25%.

## 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

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Name	Function	Type of remuneration	2016	2015
in EUR thousand <sup>1</sup>				
<b>Herbert K. Haas<sup>2</sup></b>	Chairman of the • Supervisory Board • Standing Committee • Finance and Audit Committee • Nomination Committee	Fixed remuneration	100.0	100.0
		Variable remuneration	92.5	82.7
		Remuneration for committee work	85.0	85.0
		Attendance allowances	18.0	13.0
			<b>295.5</b>	<b>280.7</b>
<b>Dr. Klaus Sturany</b>	Deputy Chairman of the Supervisory Board Member of the Standing Committee	Fixed remuneration	45.0	45.0
		Variable remuneration	44.0	40.1
		Remuneration for committee work	7.5	7.5
		Attendance allowances	5.0	6.0
			<b>101.5</b>	<b>98.6</b>
<b>Wolf-Dieter Baumgartl<sup>2</sup></b>	Member of the • Supervisory Board • Standing Committee • Finance and Audit Committee • Nomination Committee	Fixed remuneration	50.0	50.0
		Variable remuneration	46.2	41.4
		Remuneration for committee work	22.5	22.5
		Attendance allowances	14.0	11.0
			<b>132.7</b>	<b>124.9</b>
<b>Frauke Heitmüller<sup>3</sup></b>	Member of the Supervisory Board	Fixed remuneration	30.0	30.0
		Variable remuneration	29.4	26.7
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			<b>63.4</b>	<b>60.7</b>
<b>Otto Müller<sup>3</sup></b>	Member of the Supervisory Board	Fixed remuneration	30.0	30.0
		Variable remuneration	29.4	26.7
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			<b>63.4</b>	<b>60.7</b>
<b>Dr. Andrea Pollak</b>	Member of the • Supervisory Board • Nomination Committee	Fixed remuneration	30.0	30.0
		Variable remuneration	29.4	26.7
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			<b>63.4</b>	<b>60.7</b>
<b>Dr. Immo Querner<sup>2</sup></b>	Member of the Supervisory Board	Fixed remuneration	50.0	50.0
		Variable remuneration	46.2	41.4
		Remuneration for committee work	10.0	10.0
		Attendance allowances	7.0	7.0
			<b>113.2</b>	<b>108.4</b>

<b>Dr. Erhard Schipporeit</b>	Member of the • Supervisory Board • Finance and Audit Committee	Fixed remuneration	30.0	30.0
		Variable remuneration	29.4	26.7
		Remuneration for committee work	15.0	15.0
		Attendance allowances	9.0	7.0
			<b>83.4</b>	<b>78.7</b>
<b>Maïke Sielaff<sup>3</sup></b>	Member of the Supervisory Board	Fixed remuneration	30.0	30.0
		Variable remuneration	29.4	26.7
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			<b>63.4</b>	<b>60.7</b>
<b>Total</b>			<b>979.9</b>	<b>934.1</b>

<sup>1</sup> Amounts excluding reimbursed VAT

<sup>2</sup> Including supervisory board remuneration and remuneration for committee work as well as advisory board remuneration received from entities affiliated with the company

<sup>3</sup> 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 2016 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 shareholders' 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). No such reportable transactions took place in the 2016 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 2016 amounted to 0.004% (0.004%) of the issued shares, i.e. 4,625 (4,585) shares.

## 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. Since its launch the maximum amount of the GPB was paid out in 2006, 2007, 2009, 2010, 2012, 2013, 2014 and 2015.

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 P & C and L & H 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 P & C or L & H 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

Valid: 31 December 2016

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Participants		Variable remuneration system	Number of eligible participants in the variable remuneration system
Managing Director	Management level 2	Cash bonus and Share Award Plan	<b>Hannover Re Group</b> All 158 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)	<b>Head office Hannover</b> 703 staff (excl. seconded employees) out of the altogether 1,349 at Hannover head office (incl. 92 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 actual value created. The Intrinsic Value Creation (IVC) of the division encompassing the relevant area of responsibility was used as a one-year measurement basis for the last time to calculate the variable remuneration for the 2015 financial year. From 2016 onwards this indicator has been replaced with the Excess Return on Capital Allocated (xRoCA) of the business group (Property & Casualty (P & C) and Life & Health (L & H)) encompassing the relevant area of responsibility. 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 P & C xRoCA reaches 2% or the L & H xRoCA 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 2015 financial year was paid out in June 2016. The share awards for the 2015 financial year were also allocated in June 2016; they will be paid out in the spring of 2020 including dividends paid for the 2015, 2016, 2017 and 2018 financial years.



# Outlook

## Forecast

- Solid prospects for 2017 in property and casualty reinsurance despite protracted soft market phase
- Further increase in profitability anticipated 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

Economic experts expect 2017 to bring a modest pickup in cyclical momentum: in its year-end forecast the Kiel Institute for the World Economy anticipates growth of 3.6% for the global economy in 2017, which is 0.5 percentage points stronger than in 2016.

The upturn in developed economies will gain somewhat in momentum, albeit at a tempered pace. Growth will be supported by a continued accommodative monetary policy, fiscal stimuli and a slight strengthening of demand in developing and emerging nations. While China probably will not quite be able to sustain its growth rates, expansion in the other emerging economies will likely continue to accelerate. The recent

rebound in commodity prices should also play a part here. In Russia output is expected to pick up again, whereas in Brazil the economic recovery will still take a while to materialise.

The risks to the economy of recent years remain in play: the US administration has announced numerous changes – giving rise to considerable uncertainties on both the economic and political fronts. Not only that, elections are upcoming in several major European nations that may give rise to fundamental shifts in economic policy. It also remains unclear to date how the United Kingdom will navigate its withdrawal from the European Union. Quite apart from that, monetary policy and low interest rates are now reaching their limits: especially in the financial sector, for example, the negative repercussions of ultra-low interest rates are making themselves felt.

### Growth in gross domestic product (GDP)

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in %	2016 (forecast from previous year)	2016 (provisional calculation)	2017 (forecast)
<b>Economic areas</b>			
World economy	3.4	3.5	3.6
Eurozone	1.7	1.7	1.7
<b>Selected countries</b>			
United States	2.8	1.6	2.5
China	6.5	6.6	6.4
India	7.2	7.1	6.8
Japan	1.0	1.0	1.2
Germany	2.2	1.9	1.7

Source: Kiel Institute for the World Economy

### United States

The economic implications of the transition in the White House are hard to evaluate. Although the new President's election manifesto has hitherto remained largely unspecific, clearly expansionary signs can be discerned when it comes to fiscal policy. Substantial tax cuts have been promised and extensive spending programmes announced. Rising prices on US stock markets in the weeks following the election testify to the high expectations

of capital market players for US fiscal policy in 2017. At the same time, it must be assumed that the US administration will take a critical stance on any strengthening of international trade ties. Such a protectionist approach may – in combination with emerging institutional uncertainty – lead to economic constraints in the medium term. For the current 2017 financial year, however, growth is expected to expand by 0.9 percentage points to 2.5%.



## Europe

The Eurozone economy looks set to maintain its moderate course and expand by 1.7%, as in the previous year. France should be able to stabilise its weak growth (+1.2%) and Spain will likely continue its expansion at a slower pace (+2.6%). In Italy the prospects of further reforms to overcome sluggish growth have deteriorated with the rejection of constitutional reform. Growth here will probably remain on a stubbornly low level (+0.8%). Greece is expected to experience a continued recovery (+1.9%), whereas the pace of growth in the United Kingdom will continue to soften (+1.2%). Bearing in mind that parliamentary elections are upcoming this year in four of the five largest EU Member States (Germany, France, Italy, Netherlands), the direction of economic policy is clouded by uncertainties.

Consumer prices are expected to rise by 1.2% in the Eurozone and will hence remain on a low level despite the upward trend. The jobless numbers continue to trend lower: unemployment is forecast to retreat by 0.6 percentage points to 9.5%.

## Germany

The German economy is poised for further growth, which will be driven by domestic stimuli. The experts at the Kiel Institute for the World Economy anticipate a growth rate of 1.7% for the current year with a rising tendency. The business community will step up its capital expenditures because prospects are encouraging – with capital utilisation already above average – and financing conditions remain attractive. Above all, construction investments are likely to grow at a rapid tempo. Private consumption will also continue to rise in view of the favourable state of the labour market and the considerable increases in federal state transfer payments. Overall, though, the pace of expansion will slow somewhat because the purchasing power of private households will shrink as the oil price moves higher. In this environment public budgets will continue to generate surpluses against a backdrop of appreciably higher revenues and expenditures.

Assisted by improved price competitiveness, exports will continue to pick up. Most notably, rising demand is anticipated from the United States – depending on developments affecting trade agreements –, the Eurozone and emerging markets. On the other hand, the lively domestic economy will lead to significant growth rates in imports. Business conditions will deteriorate slightly in this regard.

The upswing on the labour market will probably continue and go hand-in-hand with further wage increases. The Kiel Institute for the World Economy expects the jobless rate to fall by a further 0.2 percentage points in 2017 to 5.9%.

## China, India, Japan

While the Chinese government was initially successful in reviving the economy in 2016 through accommodative monetary and fiscal policy actions, economic expansion is expected to slow over the coming years. This can be attributed to the continued existence of far-reaching structural problems such as inefficient capital allocation and an inadequate capacity for innovation. These can be obscured at most in the short term through state intervention. What is more, the already very high indebtedness of companies and local government will become even more bloated. For 2017 growth of 6.4% is anticipated, while for 2018 the figure is put at 5.9%.

India's economy continues to live up to expectations with its good development and will generate growth of 6.8% in 2017, a figure marginally lower than in the previous year. In Japan economic growth remains weak despite the boost of massive economic stimulus. Growth will probably come in slightly higher than in the previous year at 1.2%, albeit trending lower for the year thereafter.

## Capital markets

In 2017 financial markets are again likely to see promising growth opportunities but also an abundance of volatility. Most significantly, geopolitical risks, protectionism and populism have the potential for adverse repercussions in some areas. Attention will be focused on two main arenas: firstly, Europe, where the Brexit vote has still to be translated into political and economic practice, and secondly, the United States, where the handover of power in the White House is highly anticipated.

The European Central Bank's decision to maintain its low interest rate policy on a historically low level and purchase bonds over an even more extended timeframe is intended to support the Eurozone economy and bring inflation closer to the ECB's 2% target. An increasingly large chorus of voices is, however, warning about the growing risks of this policy for the economy and for markets.

The US Federal Reserve, by contrast, will move further away from an expansionary interest rate policy and press ahead with its cycle of rate hikes. This will likely be reflected in a continued strong US dollar. The Federal Reserve's next steps and communications are awaited with considerable anticipation, as it seeks to walk a fine line between the potential need for additional interest rate moves and the risk of depriving other markets of cash flows through precisely these measures.

International bond markets will again see below-average and increasingly divergent interest rate levels in 2017. In the relevant currency areas for our company we expect yield curves to slope steeply upwards. 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 the austerity drives undertaken by several industrial nations and by a worldwide upswing in private consumption.

Compared to the soaring valuations of US shares, which already performed exceptionally well in 2016, equities in Europe and emerging markets are lagging somewhat behind the cycle. The extent to which the effects of Donald Trump's election to the office of US President – which had already been factored into valuations – will be reversed by negative geopolitical or trade-restrictive measures remains one of the key questions for 2017, the implications of which will not leave Europe and emerging economies untouched.

All in all, 2017 will be distinguished by a very particular combination of geopolitical and monetary policy uncertainty, which will manifest itself in the form of increased volatility on financial markets. In view of this outlook, broad diversification within the investment portfolio will continue to be of considerable importance in 2017.

### Insurance industry

The insurance industry will still find itself operating in a challenging environment in 2017. Faced with the low interest rate environment and diminished returns, market players are increasingly focusing their attention on efficiency, shoring up profitability and innovation. The Brexit decision in the United Kingdom and the new administration in the United States will bring additional uncertainties. One positive signal coming out of the US is the Federal Reserve's move to turn its back on expansionary monetary policy. In Europe inflation is tracking away from zero into positive territory, which at least in the medium term holds the promise of an improved general environment. Despite the numerous challenges, experts foresee another stable trend in the current year for premiums in the insurance industry.

Responding to tighter solvency requirements, insurers have further optimised their capital and risk management. In conjunction with the increasingly widespread adoption of Enterprise Risk Management (ERM), they and large undertakings are tending to take out their (re)insurance protection on a centralised basis in order to be able to manage their growth and risks in an integrated manner. This, too, will likely add to the pressure for consolidation in the market.

Given the pressure on margins and surplus capacities, reinsurers will increasingly shift the focus of their products towards the quality factor. This also corresponds to the growing need for individualised solutions. In so doing, they will create tailor-made insurance products that at the same time actively support the strategic objectives and growth targets of their business partners.

The current changes on the insurance market present not only risks but also growth opportunities. An increasing need to protect against climate change, elevated political risks and the ever more important category of cyber risks are creating numerous entry points for the industry to launch new offerings. Digitisation will likely prove a particularly significant driver of change going forward. Not only will it open up new avenues for loss prevention, for example, it will also prompt the industry to cooperate more closely in future with partners from the technology sector. Cooperative ventures for the development of special underwriting tools and short-term policies and even extending as far as the cultivation of joint new business segments are possible.

## Property & Casualty reinsurance

### Overview

Overall, there has been little change in the situation in worldwide property and casualty reinsurance compared to the previous year. The significant competition in the markets has been sustained. It remains the case that the supply of reinsurance capacity far outstrips supply. These factors were once again instrumental in shaping the treaty renewals as at 1 January 2017, the date when 64% of our property and casualty reinsurance portfolio (excluding facultative business and structured reinsurance) was renegotiated. We were satisfied with the outcome on the whole, even though the anticipated rate stability has not yet set in across the board. A further contributory factor here was the continued absence of market-changing large losses in the year under review. Nevertheless, 2016 did see increased loss activity compared to the previous year, with positive implications for prices at least on a local level. All in all, though, the state of the international property and casualty reinsurance markets remains challenging.

Based on our excellent ratings, our long-standing customer relationships and our profit-oriented underwriting policy, we are well placed to handle the soft market conditions. Hannover Re continues to practise its systematic cycle management combined with rigorous underwriting discipline and our company trusts in a broadly diversified portfolio of high-quality existing business, complemented by opportunities that may arise in niche and specialty lines. The treaty renewals as at 1 January 2017 presented a range of attractive opportunities to expand the portfolio, above all in North America, in credit and surety business and in the area of cyber covers. We also enjoyed a surge in demand for reinsurance solutions designed to provide solvency relief, hence enabling us to book strong premium growth in Europe as well as in North and Latin America.

Expectations for the development of individual markets and lines of property and casualty reinsurance are described in greater detail below, broken down into the areas of Board responsibility.

## Property & Casualty reinsurance: Forecast development for 2017

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	Volume <sup>1</sup>	Profitability <sup>2</sup>
Target markets		
North America <sup>3</sup>	↗	+
Continental Europe <sup>3</sup>	↘	+/-
Specialty lines worldwide		
Marine	↘	+/-
Aviation	↘	-
Credit, surety and political risks	↗	+/-
UK, Ireland, London market and direct business	↗	+/-
Facultative reinsurance	↘	+
Global reinsurance		
Worldwide treaty reinsurance <sup>3</sup>	↘	+/-
Catastrophe XL (Cat XL)	↗	-
Structured reinsurance and insurance-linked securities	↗	+/-

<sup>1</sup> In EUR

<sup>2</sup> ++ = significantly above the cost of capital

+ = above the cost of capital

+/- = on a par with the cost of capital

- = below the cost of capital

<sup>3</sup> All lines with the exception of those reported separately

## Target markets

### North America

In North America we expect to see further mergers and acquisitions in the current year, both in the insurance and reinsurance market. We do not, however, anticipate any adverse repercussions on our market position. Thanks to our long-standing, close customer relationships and financial strength, we even expect to tap into greater opportunities as a result. It is our expectation that in 2017 we will be able to further profitably enlarge our portfolio. Our focus here will be on existing client accounts.

In view of the heightened sensitivity that now exists in the market towards potential loss events, demand for cyber covers is likely to continue growing.

Although it remains competitive, the North American primary insurance market has proven to be rather stable; for the most part, therefore, we were similarly highly satisfied with the outcome of the treaty renewals as at 1 January 2017. The destructive forest fires of the previous year in Canada led to appreciable rate increases for loss-impacted programmes. Yet even for treaties that had been spared losses it proved possible to push through moderate price increases. The rate level for hurricane-exposed business in the United States was stable or slightly higher.

All in all, we expect to be able to profitably expand our portfolio in North America. In the treaty renewals as at 1 January the premium volume rose by 6.5% on an underwriting-year basis. As things currently stand, we expect to see sustained competition

in this segment in the renewals as at 1 June and 1 July 2017 – the time of year when catastrophe XL covers, in particular, are renegotiated. On the whole, our North American business is nevertheless expected to deliver a slightly higher premium volume in the current financial year.

### 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. Yet here, too, competition is fierce. On the whole, though, reinsurance rates remained stable. Although improved conditions were obtained in industrial fire insurance – which had recorded heavy losses –, these are still not adequate. We were therefore selective in our acceptances here. 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 natural hazards risks, we expect to see rising demand – not least on account of the increased concentration of these risks, which are also insured against so-called extended natural hazards.

The premium volume for our domestic market is expected to remain broadly unchanged in 2017.

In the **other markets of Continental Europe** the picture was a mixed one: The treaty renewals in the Netherlands and Northern European countries passed off very successfully and we were able to expand our portfolios. Business in Central and Eastern Europe, on the other hand, proved to be highly competitive in the treaty renewals as at 1 January 2017, with rates coming under sustained pressure. Nevertheless, we also obtained higher prices in some markets, including for example in Poland.

For Continental Europe as a whole we expect to book a modestly lower premium volume.

### Specialty lines worldwide

#### Marine

In marine reinsurance we expect the pace of rate reductions to slow in the 2017 financial year; this was already evident in the treaty renewals as at 1 January 2017. Even over the medium term, however, the market environment for our ceding companies is unlikely to change. The losses recorded in recent years have significantly eaten into reinsurers' margins and lent added impetus towards a bottoming out in prices. In view of the fact that our customers have also seen a contraction in premium income, we anticipate a reduced premium volume in 2017.

#### Aviation

Aviation reinsurance is experiencing a considerable excess supply of insurance capacity. Against this backdrop, market rates fell by up to 10 percent in the treaty renewals. While we moved to scale back our proportional acceptances, in particular, non-proportional business – in which the price erosion was more moderate – remained stable. We do not expect any

positive effects for the rate trend to make themselves felt in the 2017 financial year. With this in mind, we shall continue to write our business highly selectively and expect to book a reduced premium volume for our portfolio.

#### **Credit, surety and political risks**

The slowdown in economic growth and the moderate rise in loss ratios in emerging markets will impact our business. While the risk appetite of primary insurers has increased steadily in recent years, we now expect modestly higher reinsurance cessions on account of the more demanding capital requirements associated with Solvency II. Although conditions will still be under pressure in the current 2017 financial year, it will likely only be slight. For this reason, we anticipate an expanding premium volume and an improved profit contribution.

#### **United Kingdom, Ireland, London Market and direct business**

In general terms, we are looking at declining reinsurance rates for 2017 – especially in the property lines – on account of sustained competition. In addition, we anticipate a further deterioration in conditions on the primary insurance side. In UK non-proportional motor business, however, we are benefiting from stable rates and growth in the underlying business. We are also expecting to tap into opportunities for new business, especially from the new start-up syndicates at Lloyd's. Further risk selection and increased diversification should serve to boost the portfolio quality of our direct business, which is again expected to deliver stable earnings in 2017. In the treaty renewals as at 1 January 2017 we largely preserved our portfolio thanks to our established customer relationships. For the current year we expect to book a slightly higher premium volume because we have acted on various market opportunities, for example in cyber business.

#### **Facultative reinsurance**

In facultative reinsurance we have focused even more heavily on our core business. Agency business and primary insurance activities were reallocated within the Hannover Re Group. This realignment enables us to cater even better to our customers' changing facultative reinsurance needs. This also includes a stronger orientation towards regional entities, which enables us to be even more attentive to the requirements of our customers. With this in mind, we anticipate new business potential and continued growth in the coming years. The investments that we have made in recent years in the areas of cyber risks and renewables will also lead to attractive premium growth in the future.

For the current financial year we anticipate a stable premium volume and sustained good results in our specialty lines. In this context we expect to be able to offset declining premium with new business.

### **Global reinsurance**

#### **Worldwide treaty reinsurance**

Insurance markets in the **Asia-Pacific region** look set to stay on their growth track in 2017. Thanks to the establishment of a branch in India and the superb regional positioning of our other locations in Asia and Australia, we should continue to be able to act on opportunities for profitable growth.

Profits and the quality of conditions for reinsurers in **Japanese** business are particularly dependent on the development of natural catastrophe events. We expect our Japanese liability portfolio to show considerable improvement in the current financial year.

As far as the development of our reinsurance business in **China** is concerned, it is our expectation that over the medium term ceding companies will not focus exclusively on their growth targets, but will also pay significantly greater attention to profitability.

This will require improved risk management, actuarial pricing and the expansion of the existing portfolio into new business fields. Hannover Re will focus more heavily on achieving its margins and hence on cyclical underwriting and it will drive forward the diversification of its existing portfolio.

The region of **South and Southeast Asia** should deliver continued growth, albeit at a slightly slower pace than in the previous year. Our branch in Malaysia is pressing ahead with the expansion of its niche business, with the resulting premium expected to more than make up for possible reductions in the existing portfolio.

**Australia and New Zealand** remain challenging markets. By further stepping up our contacts with strategic target customers, we are nevertheless able to position ourselves successfully in the competitive environment and generate further growth opportunities. Our basic premise continues to be adherence to a strictly profit-oriented underwriting policy while at the same time boosting gross premium income.

All in all, we expect to see significant growth in reinsurance treaties that cover specific needs of our customers and are only placed with selected reinsurers such as Hannover Re.

In **South Africa** the risk-based solvency regime SAM (Solvency Assessment and Management) will be adopted for the insurance industry in the course of 2017. We anticipate a stable premium trend for our reinsurance portfolio and specialty business in the current year.

The market and the placement of reinsurance cessions are just as fiercely competitive in **Latin America** as they are in other regions. Based on our exceptionally good market position and

our outstanding financial strength, we expect prices in the main renewals as at 1 July 2017 to come under less pressure in view of natural catastrophe events recorded in 2016 such as the earthquake in Ecuador and Hurricane Matthew. Despite the challenging state of the market, we were able to keep our portfolio stable thanks to our focus on Latin America as a whole. In Argentina – one of the largest markets in Latin America – we expect to see a continued business-friendly policy. A similar tendency is also likely in Brazil. To this extent, we are confident of generating further profitable growth for our portfolio from Latin American markets in the current financial year by pursuing our selective underwriting policy.

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. Owing to the discontinuation of a small number of large treaties, however, we expect premium income to contract in 2017.

Rates in our **retakaful business** are likely to remain stable or decline in the current financial year. New business opportunities should open up in niche areas such as motor insurance riders or in credit and surety business. Overall, the premium volume generated should be on a par with the previous year.

#### Catastrophe XL (Cat XL)

Although the inflow of capacity from capital markets into **natural catastrophe business** has slowed appreciably, the market is still overshadowed by an oversupply of reinsurance capacity. The current soft market phase will only come to an end when the majority of market players reach a level of profitability that is insufficient – whether through high loss expenditures, inadequate reserving levels or influencing effects from the capital market. Price reductions recorded in the 1 January 2017 treaty renewals were offset by increased shares in profitable programmes, with the result that premium growth of 2.9 percent was booked for the renewed portfolio. Premium income is expected to remain stable for the full year.

#### Structured reinsurance and insurance-linked securities

Owing to the implementation of risk-based models for calculating solvency requirements not only within but also outside the European Union, demand for **structured reinsurance** has surged sharply higher. 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 costs of reinsurance. For the current year we are expecting a substantial increase in premium.

In the area of **insurance-linked securities (ILS)** we expect to see steadily growing demand. Investors are seeking a negative or minimal correlation with other financial investments and hence the diversification that this brings. What is more, the market for insurance risks is perceived by investors as relatively attractive compared to other investments. 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.



## Life & Health reinsurance

As an internationally operating reinsurer, we are active in all areas of life and health reinsurance. For the most part we assume far more than the pure underwriting risk for our customers. We are closely involved in the process at an early stage in order to work together on jointly identifying their exact reinsurance needs.

### Life & Health reinsurance: Forecast development for 2017

M83

	Volume <sup>1</sup>	Profitability <sup>2</sup>
Financial Solutions	➔	++
Risk Solutions		
Longevity	➔	+/-
Mortality	➔	+/-
Morbidity	➔	+/-

<sup>1</sup> In EUR

<sup>2</sup> ++ = significantly above the cost of capital  
+ = above the cost of capital  
+/- = on a par with the cost of capital  
- = below the cost of capital

In Germany the implications of the launch of the new long-term care insurance system for LTC products are awaited with keen anticipation. Starting 1 January 2017, instead of the familiar three care levels there are now five grades of care that facilitate a more detailed assessment of the need for assistance. In the year under review we explored this innovation at length and made preparations to support our customers with (re)insurance solutions tailored to the new long-term care insurance scheme. In addition, the requirements of Solvency II and the establishment of the supplementary reserves needed for life products promising guaranteed returns in excess of an official reference rate (Zinszusatzreserve) will pose further major challenges for German life insurers in the coming year. In the rest of Europe, too, we anticipate rising demand for reinsurance solutions that deliver capital relief and/or solvency optimisation. In the financial year just ended we developed concepts for this purpose in order to implement customised solutions for customers. In the United Kingdom it is our expectation that the market will again prove to be extremely competitive in the year ahead and that the price level will remain under strain owing to considerable international competition. The US financial solutions market is known for its marked innovation potential. As a market leader, we expect to build on the good development to date in the coming financial year. We are confident of our ability to cover the continued growth in demand among US life insurers for reinsurance solutions designed to provide capital and reserve relief.

In the Asian life (re)insurance market we are very optimistic that we can build on the success of the year just ended. Particularly in health reinsurance business, we are a sought-after and capable partner for customers who benefit from our international experience.

Demand in longevity business is expected to remain brisk around the world in 2017. Life expectancy will continue to rise, while at the same time regulatory authorities are imposing more rigorous reporting and capital management requirements. This creates a challenge for the insurance industry. Given that we are equipped with more than 20 years of know-how in this market segment, we are well placed to play a central role in the global development of the longevity (re)insurance market going forward.

The challenges that lie ahead in life and health reinsurance remain diverse in nature and their effects on the market will be complex. Along with the anticipated business-specific developments in the various markets described above, we expect demand for automated, paperless underwriting processes to grow even more vigorously than in 2016. In view of the positive feedback received to date and already existing firm inquiries, we are confident of implementing our automated underwriting system with numerous additional customers in the coming year.

Furthermore, the dynamic advances being made in technology and digitisation, in particular, will in future enable, for example, the transfer of insurance data in real time to the (re) insurer. In this way it will be possible to calculate premiums and risk loadings on a person-specific level and hence make life insurance part of active living. We shall press ahead with our intensive exploration of these developments in order to help shape future innovations that combine lifestyle and wellness with life insurance.

## Investments

With an eye to the outcome of the US presidential election and the stabilising tendencies in Europe, coupled with political and economic uncertainties around the world, the conservative posture of substantial parts of our investment portfolio will be preserved. Nevertheless, irrespective of the sovereign debt issue, the improved economic outlook will also be reflected in appropriate risk-taking. Our emphasis on broad diversification will be retained unchanged. By way of a neutral modified duration we shall ensure that the interest rate risk is tightly managed.

The enlargement of the asset portfolio is expected to have a positive effect on investment income, although the average return will decline owing to persistently low interest rates. The interest rate increases observed since the end of the period under review in our main currency areas could bring some

relief 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 portfolio in the areas of alternative investments and real estate.

In view of the high capital requirements and possibly increased volatility on equity markets, which are in part liquidity-driven, we are for the time being adopting a more cautious stance on additional new exposures to listed equities given the prevailing valuation levels.

## Outlook for the full 2017 financial year

In the current financial year, despite the challenging environment in reinsurance business and on the capital market, we anticipate a very good overall result for the Hannover Re Group. Bearing in mind developments both in property and casualty and in life and health reinsurance, we expect to post low single-digit percentage growth in gross premium – based on constant exchange rates – for our total portfolio in the current financial year.

In property and casualty reinsurance we expect to modestly increase the premium volume based on unchanged exchange rates. The primary driver here is the strong demand in structured reinsurance business. Yet opportunities to expand the portfolio also opened up in North America and in credit and surety business in the context of the treaty renewals as at 1 January 2017. We shall nevertheless stand by our selective underwriting policy, under which in large part we write only business that satisfies our margin requirements. Thanks to our good ratings and long-standing stable customer relationships, we expect another solid outcome from the treaty renewals during the year.

Even though market conditions in property and casualty reinsurance will likely remain soft, we anticipate a good underwriting result. This is conditional upon major loss expenditure coming in within the bounds of 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 our worldwide life and health reinsurance business we expect to book moderate organic gross premium growth for the current year after adjustment for exchange rate effects. The forecast EBIT margins for the individual reporting categories remain unchanged at the following target levels: for financial solutions and longevity business an EBIT margin of at least 2% is expected. The planning for mortality and morbidity business envisages an unchanged EBIT margin of at least 6%. We also continue to aim for a Value of New Business in excess of EUR 220 million.

With regard to the IVC targets that we use to map economic value creation, we anticipate a minimum 2% xRoCA for property and casualty reinsurance and at least 3% xRoCA for life and health reinsurance.

In view of the expected positive cash flow that we generate from the technical account and our investments, our asset portfolios should – based on stable exchange rates – continue to grow. We are looking to deliver a return on investment of 2.7%.

For 2017 we anticipate Group net income of more than EUR 1 billion. This is subject to the proviso that the burden of major losses does not significantly exceed the budgeted level of EUR 825 million and that there are no exceptional 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 235.





# Consolidated financial statements



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# Consolidated balance sheet as at 31 December 2016

N01

<b>Assets</b> in EUR thousand	Notes	<b>31.12.2016</b>	31.12.2015 <sup>1</sup>
Fixed-income securities – held to maturity	6.1	484,955	1,007,665
Fixed-income securities – loans and receivables	6.1	2,563,594	2,869,865
Fixed-income securities – available for sale	6.1	32,182,173	29,616,448
Fixed-income securities – at fair value through profit or loss	6.1	239,917	108,982
Equity securities – available for sale	6.1	905,307	452,108
Other financial assets – at fair value through profit or loss	6.1	57,665	39,602
Real estate and real estate funds	6.1	1,792,919	1,673,958
Investments in associated companies	6.1	114,633	128,008
Other invested assets	6.1	1,764,678	1,544,533
Short-term investments	6.1	838,987	1,084,739
Cash and cash equivalents	6.1	848,667	820,995
<b>Total investments and cash under own management</b>		<b>41,793,495</b>	<b>39,346,903</b>
Funds withheld	6.2	11,673,259	13,801,845
Contract deposits	6.3	170,505	188,604
<b>Total investments</b>		<b>53,637,259</b>	<b>53,337,352</b>
Reinsurance recoverables on unpaid claims	6.7	1,506,292	1,395,281
Reinsurance recoverables on benefit reserve	6.7	1,189,420	1,367,173
Prepaid reinsurance premium	6.7	134,927	164,023
Reinsurance recoverables on other technical reserves	6.7	12,231	8,687
Deferred acquisition costs	6.4	2,198,089	2,094,671
Accounts receivable	6.4	3,678,030	3,665,937
Goodwill	6.5	64,609	60,244
Deferred tax assets	7.5	408,292	433,500
Other assets	6.6	674,389	680,543
Accrued interest and rent		9,978	7,527
Assets held for sale		15,086	–
<b>Total assets</b>		<b>63,528,602</b>	<b>63,214,938</b>

<sup>1</sup> Adjusted pursuant to IAS 8 (cf. section 3.1 of the notes)

<b>Liabilities</b>			
in EUR thousand	Notes	31.12.2016	31.12.2015
Loss and loss adjustment expense reserve	6.7	28,129,418	26,556,388
Benefit reserve	6.7	10,289,854	12,206,699
Unearned premium reserve	6.7	3,340,651	3,159,363
Other technical provisions	6.7	362,390	325,528
Funds withheld	6.8	1,234,073	1,265,035
Contract deposits	6.9	4,298,343	4,682,484
Reinsurance payable		1,216,036	1,390,006
Provisions for pensions	6.10	180,680	150,299
Taxes	7.5	409,023	271,674
Deferred tax liabilities	7.5	1,842,973	1,932,722
Other liabilities	6.11	680,396	698,933
Long-term debt and subordinated capital	6.12	1,804,218	1,798,337
<b>Total liabilities</b>		<b>53,788,055</b>	<b>54,437,468</b>
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
<b>Common shares and additional paid-in capital</b>		<b>845,159</b>	<b>845,159</b>
Cumulative other comprehensive income			
Unrealised gains and losses on investments		904,196	712,001
Cumulative foreign currency translation adjustment		680,082	509,189
Changes from hedging instruments		(6,703)	(1,217)
Other changes in cumulative other comprehensive income		(53,778)	(36,571)
<b>Total other comprehensive income</b>		<b>1,523,797</b>	<b>1,183,402</b>
Retained earnings		6,628,274	6,039,783
<b>Equity attributable to shareholders of Hannover Rück SE</b>		<b>8,997,230</b>	<b>8,068,344</b>
Non-controlling interests	6.14	743,317	709,126
<b>Total shareholders' equity</b>		<b>9,740,547</b>	<b>8,777,470</b>
<b>Total liabilities</b>		<b>63,528,602</b>	<b>63,214,938</b>

# Consolidated statement of income 2016

N02

in EUR thousand	Notes	1.1.–31.12.2016	1.1.–31.12.2015
Gross written premium	7.1	16,353,622	17,068,663
Ceded written premium		1,749,624	2,219,094
Change in gross unearned premium		(156,575)	(259,834)
Change in ceded unearned premium		(29,808)	3,307
<b>Net premium earned</b>		<b>14,417,615</b>	<b>14,593,042</b>
Ordinary investment income	7.2	1,161,976	1,253,443
Profit/loss from investments in associated companies	7.2	9,101	19,169
Realised gains and losses on investments	7.2	206,296	135,847
Change in fair value of financial instruments	7.2	26,066	901
Total depreciation, impairments and appreciation of investments	7.2	76,028	38,098
Other investment expenses	7.2	109,140	101,202
<b>Net income from investments under own management</b>		<b>1,218,271</b>	<b>1,270,060</b>
Income/expense on funds withheld and contract deposits	7.2	332,149	395,033
<b>Net investment income</b>		<b>1,550,420</b>	<b>1,665,093</b>
Other technical income	7.3	470	1,290
<b>Total revenues</b>		<b>15,968,505</b>	<b>16,259,425</b>
Claims and claims expenses	7.3	10,811,325	11,075,407
Change in benefit reserves	7.3	80,512	101,157
Commission and brokerage, change in deferred acquisition costs	7.3	2,988,479	2,918,429
Other acquisition costs		16,292	5,652
Other technical expenses	7.3	3,997	1,348
Administrative expenses	7.3	401,545	398,512
<b>Total technical expenses</b>		<b>14,302,150</b>	<b>14,500,505</b>
Other income and expenses	7.4	22,993	(3,684)
<b>Operating profit/loss (EBIT)</b>		<b>1,689,348</b>	<b>1,755,236</b>
Interest on hybrid capital	6.12	71,693	84,316
<b>Net income before taxes</b>		<b>1,617,655</b>	<b>1,670,920</b>
Taxes	7.5	391,229	456,207
<b>Net income</b>		<b>1,226,426</b>	<b>1,214,713</b>
thereof			
Non-controlling interest in profit and loss	6.14	55,197	63,988
<b>Group net income</b>		<b>1,171,229</b>	<b>1,150,725</b>
<b>Earnings per share (in EUR)</b>	<b>8.5</b>		
Basic earnings per share		9.71	9.54
Diluted earnings per share		9.71	9.54

# Consolidated statement of comprehensive income 2016

N03

in EUR thousand	1.1.–31.12.2016	1.1.–31.12.2015
<b>Net income</b>	<b>1,226,426</b>	<b>1,214,713</b>
<b>Not reclassifiable to the consolidated statement of income</b>		
<b>Actuarial gains and losses</b>		
Gains (losses) recognised directly in equity	(27,889)	18,997
Tax income (expense)	9,101	(5,721)
	<b>(18,788)</b>	<b>13,276</b>
<b>Income and expense recognised directly in equity that cannot be reclassified</b>		
Gains (losses) recognised directly in equity	(27,889)	18,997
Tax income (expense)	9,101	(5,721)
	<b>(18,788)</b>	<b>13,276</b>
<b>Reclassifiable to the consolidated statement of income</b>		
<b>Unrealised gains and losses on investments</b>		
Gains (losses) recognised directly in equity	382,225	(481,349)
Transferred to the consolidated statement of income	(163,222)	(162,990)
Tax income (expense)	741	164,008
	<b>219,744</b>	<b>(480,331)</b>
<b>Currency translation</b>		
Gains (losses) recognised directly in equity	179,194	339,324
Tax income (expense)	(5,365)	(13,672)
	<b>173,829</b>	<b>325,652</b>
<b>Changes from the measurement of associated companies</b>		
Gains (losses) recognised directly in equity	(7,836)	2,831
Transferred to the consolidated statement of income	(1,251)	(424)
	<b>(9,087)</b>	<b>2,407</b>
<b>Changes from hedging instruments</b>		
Gains (losses) recognised directly in equity	(5,825)	9,420
Tax income (expense)	295	(1,819)
	<b>(5,530)</b>	<b>7,601</b>
<b>Reclassifiable income and expense recognised directly in equity</b>		
Gains (losses) recognised directly in equity	547,758	(129,774)
Transferred to the consolidated statement of income	(164,473)	(163,414)
Tax income (expense)	(4,329)	148,517
	<b>378,956</b>	<b>(144,671)</b>
<b>Total income and expense recognised directly in equity</b>		
Gains (losses) recognised directly in equity	519,869	(110,777)
Transferred to the consolidated statement of income	(164,473)	(163,414)
Tax income (expense)	4,772	142,796
	<b>360,168</b>	<b>(131,395)</b>
<b>Total recognised income and expense</b>	<b>1,586,594</b>	<b>1,083,318</b>
thereof		
Attributable to non-controlling interests	75,079	51,864
Attributable to shareholders of Hannover Rück SE	1,511,515	1,031,454

# Consolidated statement of changes in shareholders' equity 2016

N04

	Common shares	Additional paid-in capital	Unrealised gains/losses (cumulative other comprehensive income)	Other reserves Currency translation
in EUR thousand				
<b>Balance as at 1.1.2015</b>	<b>120,597</b>	<b>724,562</b>	<b>1,169,255</b>	<b>190,454</b>
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 directly in equity	–	–	(457,254)	318,735
Net income	–	–	–	–
Dividends paid	–	–	–	–
<b>Balance as at 31.12.2015</b>	<b>120,597</b>	<b>724,562</b>	<b>712,001</b>	<b>509,189</b>
<b>Balance as at 1.1.2016</b>	<b>120,597</b>	<b>724,562</b>	<b>712,001</b>	<b>509,189</b>
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 in equity	–	–	192,195	170,784
Net income	–	–	–	–
Dividends paid	–	–	–	–
<b>Balance as at 31.12.2016</b>	<b>120,597</b>	<b>724,562</b>	<b>904,196</b>	<b>680,082</b>



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				
<b>(8,748)</b>	<b>(48,288)</b>	<b>5,402,926</b>	<b>7,550,758</b>	<b>702,202</b>	<b>8,252,960</b>
–	–	(1,320)	(1,320)	(1,189)	(2,509)
–	–	–	–	966	966
–	–	–	–	189	189
–	–	–	–	(9)	(9)
–	–	(10)	(10)	–	(10)
7,531	11,717	–	(119,271)	(12,124)	(131,395)
–	–	1,150,725	1,150,725	63,988	1,214,713
–	–	(512,538)	(512,538)	(44,897)	(557,435)
<b>(1,217)</b>	<b>(36,571)</b>	<b>6,039,783</b>	<b>8,068,344</b>	<b>709,126</b>	<b>8,777,470</b>
<b>(1,217)</b>	<b>(36,571)</b>	<b>6,039,783</b>	<b>8,068,344</b>	<b>709,126</b>	<b>8,777,470</b>
–	–	(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)
<b>(6,703)</b>	<b>(53,778)</b>	<b>6,628,274</b>	<b>8,997,230</b>	<b>743,317</b>	<b>9,740,547</b>

# Consolidated cash flow statement 2016

N05

in EUR thousand	1.1. – 31.12.2016	1.1. – 31.12.2015
<b>I. Cash flow from operating activities</b>		
Net income	1,226,426	1,214,713
Appreciation/depreciation	105,358	64,493
Net realised gains and losses on investments	(206,296)	(135,847)
Change in fair value of financial instruments (through profit or loss)	(26,066)	(901)
Realised gains and losses on deconsolidation	(1,995)	(835)
Income from the recognition of negative goodwill	(10,543)	–
Amortisation of investments	74,224	96,540
Changes in funds withheld	1,592,162	3,454,332
Net changes in contract deposits	(404,033)	(1,923,135)
Changes in prepaid reinsurance premium (net)	182,385	256,527
Changes in tax assets/provisions for taxes	88,078	159,250
Changes in benefit reserve (net)	(1,120,740)	(958,105)
Changes in claims reserves (net)	1,123,269	1,229,670
Changes in deferred acquisition costs	(89,149)	(97,673)
Changes in other technical provisions	20,254	(9,106)
Changes in clearing balances	(161,164)	(97,390)
Changes in other assets and liabilities (net)	(60,887)	(147,658)
<b>Cash flow from operating activities</b>	<b>2,331,283</b>	<b>3,104,875</b>

in EUR thousand	1.1.–31.12.2016	1.1.–31.12.2015 <sup>1</sup>
<b>II. Cash flow from investing activities</b>		
Fixed-income securities – held to maturity		
Maturities	504,293	1,184,382
Fixed-income securities – loans and receivables		
Maturities, sales	533,319	358,350
Purchases	(224,906)	(153,057)
Fixed-income securities – available for sale		
Maturities, sales	10,744,087	10,400,105
Purchases	(12,721,891)	(12,362,146)
Fixed-income securities – at fair value through profit or loss		
Maturities, sales	53,995	20,211
Purchases	(185,375)	(58,570)
Equity securities – available for sale		
Sales	132,636	5,284
Purchases	(504,713)	(402,902)
Other financial assets – at fair value through profit or loss		
Sales	30,025	74,043
Purchases	(16,064)	(33,312)
Other invested assets		
Sales	260,882	183,271
Purchases	(385,936)	(379,296)
Affiliated companies and participating interests		
Sales	41,068	59,723
Purchases	(76,217)	(28,453)
Real estate and real estate funds		
Sales	79,428	104,414
Purchases	(204,044)	(458,294)
Short-term investments		
Changes	255,823	(590,536)
Other changes (net)	(27,960)	(30,771)
<b>Cash flow from investing activities</b>	<b>(1,711,550)</b>	<b>(2,107,554)</b>

<sup>1</sup> Adjusted pursuant to IAS 8 (cf. section 3.1 of the notes)

in EUR thousand	1.1.–31.12.2016	1.1.–31.12.2015 <sup>1</sup>
<b>III. Cash flow from financing activities</b>		
Contribution from capital measures	7,762	4,007
Payment on capital measures	(20,048)	(3,604)
Structural change without loss of control	141	(2,509)
Dividends paid	(612,953)	(557,435)
Proceeds from long-term debts	226	23,400
Repayment of long-term debts	(2,028)	(518,642)
Other changes (net)	(13)	(10)
<b>Cash flow from financing activities</b>	<b>(626,913)</b>	<b>(1,054,793)</b>
<b>IV. Exchange rate differences on cash</b>	<b>34,852</b>	<b>23,964</b>
<b>Cash and cash equivalents at the beginning of the period</b>	<b>820,995</b>	<b>854,503</b>
<b>Change in cash and cash equivalents (I. + II. + III. + IV.)</b>	<b>27,672</b>	<b>(33,508)</b>
<b>Cash and cash equivalents at the end of the period</b>	<b>848,667</b>	<b>820,995</b>
<b>Supplementary information on the cash flow statement<sup>2</sup></b>		
Income taxes paid (on balance)	(271,440)	(311,241)
Dividend receipts <sup>3</sup>	151,914	162,612
Interest received	1,543,699	1,509,625
Interest paid	(253,533)	(182,910)

<sup>1</sup> Adjusted pursuant to IAS 8 (cf. section 3.1 of the notes)

<sup>2</sup> The income taxes paid, dividend receipts as well as interest received and paid are included entirely in the cash flow from operating activities.

<sup>3</sup> Including dividend-like profit participations from investment funds

# Notes to the consolidated financial statements 2016

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# 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 16.4 billion, Hannover Re is the third-largest reinsurance group in the world. The company’s network consists of more than 130 subsidiaries, affiliates, branches and representative offices worldwide with a total workforce of roughly 2,900. 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 2016 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 2 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 2017.

## 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.

- Investment Entities: Applying the Consolidation Exception (Amendments to IFRS 10, IFRS 12 and IAS 28)
- Disclosure Initiative (Amendments to IAS 1)
- Annual Improvements to IFRSs 2012–2014 Cycle
- Clarification of Acceptable Methods of Depreciation and Amortisation (Amendments to IAS 16 and IAS 38)
- Accounting for Acquisitions of Interests in Joint Operations (Amendments to IFRS 11)
- Annual Improvements to IFRSs 2010–2012 Cycle
- Defined Benefit Plans: Employee Contributions (Amendments to IAS 19)

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

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 and has still to be endorsed by the EU. Hannover Re has still to begin a detailed analysis of the new requirements.

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, which had still to be endorsed by the EU as at the balance sheet date, address the implications of the different effective dates for initial application of IFRS 9 and the anticipated new standard governing the accounting for insurance and reinsurance contracts. 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. Irrespective of the deferral, Hannover Re is currently reviewing the implications of IFRS 9 and expects that they will relate primarily to the classification of financial instruments.

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. The standard was endorsed by the EU in September 2016, but the clarifications have not yet been endorsed. 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 2016	Transfers of Investment Property (Amendments to IAS 40)	1 January 2018 (still to be endorsed by the EU)
December 2016	IFRIC Interpretation 22, Foreign Currency Transactions and Advance Consideration	1 January 2018 (still to be endorsed by the EU)
December 2016	Annual Improvements to IFRS Standards 2014–2016 Cycle	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)
January 2016	Disclosure Initiative (Amendments to IAS 7)	1 January 2017 (still to be endorsed by the EU)
January 2016	Recognition of Deferred Tax Assets for Unrealised Losses (Amendments to IAS 12)	1 January 2017 (still to be endorsed by the EU)
September 2014	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (Amendments to IFRS 10 and IAS 28)	deferred (still to be endorsed by the EU)
January 2014	IFRS 14 Regulatory Deferral Accounts	1 January 2016 (still to be endorsed by the EU)

## 3. Accounting policies

### 3.1 Changes in accounting policies

For 2016 Hannover Re changed the disclosure of overnight money deposits in order to better reflect the extremely short-term and highly liquid nature of this asset class. These assets are now allocated to the balance sheet item "Cash and cash equivalents", whereas in previous years they had been recognised under the balance sheet item "Short-term investments".

This represents a change in an accounting policy, which pursuant to IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors" is to be performed retrospectively 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 cash flow statement are shown in the following table. There were no implications for the consolidated statement of income.

in EUR thousand	1.1.2015	31.12.2015
<b>Consolidated balance sheet</b>		
Short-term investments	(81,621)	(28,391)
Cash and cash equivalents	81,621	28,391
<b>Consolidated cash flow statement</b>		
Cash and cash equivalents at the beginning of the period		81,621
Cash flow from investing activities		(59,479)
Exchange rate differences on cash		6,249
Cash and cash equivalents at the end of the period		28,391

## 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 serves as a transitional arrangement until the IASB defines the measurement of insurance contracts after completion of Phase II. 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.

Financial instrument	Parameter	Pricing model
<b>Fixed-income securities</b>		
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
<b>Other invested assets</b>		
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
<b>Other financial assets – at fair value through profit or loss</b>		
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 earnings 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 payment:** 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 Payment”, 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 gains and losses from currency translation.

**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.

Effective 1 January 2016 the functional currency of the Group entity Hannover Re (Ireland) Designated Activity Company, Dublin, changed from the euro to the US dollar. This change was prompted by the regrouping of large parts of the securities portfolio held by the company into US dollar-denominated instruments. Taken together with the fact that major portions of the insurance business written by the company are transacted in US dollars, the currency of the primary economic environment in which the Group entity operates is now the US dollar.

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.

	31.12.2016	31.12.2015	2016	2015
1 EUR corresponds to:	Mean rate of exchange on the balance sheet date		Average rate of exchange	
AUD	1.4591	1.4981	1.4858	1.4840
BHD	0.3972	0.4122	0.4155	0.4197
CAD	1.4191	1.5158	1.4630	1.4241
CNY	7.3206	7.0970	7.3246	6.9934
GBP	0.8553	0.7381	0.8162	0.7289
HKD	8.1753	8.4692	8.5567	8.6269
KRW	1,266.9800	1,281.5964	1,278.7281	1,257.9722
MYR	4.7293	4.6929	4.5774	4.3356
SEK	9.5524	9.1938	9.4499	9.3450
USD	1.0540	1.0927	1.1025	1.1128
ZAR	14.4632	16.8447	16.1886	14.2609

**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.

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 73 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 19 (18) companies at home and abroad were not consolidated in the year under review. A further 18 (12) companies were not included at equity in the consolidated financial statement for the same reason. The business object of these altogether 37 (30) 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	2016	2015
<b>Consolidated companies (Group companies)</b>		
Germany	21	25
Abroad	65	66
<b>Total</b>	<b>86</b>	<b>91</b>
<b>Companies included at equity</b>		
Germany	2	3
Abroad	4	7
<b>Total</b>	<b>6</b>	<b>10</b>

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). In the year under review, in the context of initial application of the provisions amended by the Accounting Directive Implementing Act (BilRUG), all companies were included in this list in which shares are held with the intention of serving the investor's own business interests through creation of a lasting relationship. Previously applicable participation thresholds no longer apply. The number of companies to be listed in the Group annual financial report has

consequently increased slightly. 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	Participation in %	Currency	Capital and reserves	Result for the last financial year
in currency units of 1,000				
<b>Domestic companies</b>				
<b>Affiliated consolidated companies</b>				
Hannover Rück Beteiligung Verwaltungs-GmbH, Hannover/Germany <sup>1,2</sup>	100.00	EUR	2,341,925	–
Hannover Life Re AG, Hannover/Germany <sup>1,2</sup>	100.00	EUR	1,873,188	–
HILSP Komplementär GmbH, Hannover/Germany <sup>3</sup>	100.00	EUR	33	3
International Insurance Company of Hannover SE, Hannover/Germany <sup>1,2</sup>	100.00	EUR	165,845	–
Hannover Insurance-Linked Securities GmbH & Co. KG, Hannover/Germany <sup>3</sup>	100.00	EUR	20,388	53
FUNIS GmbH & Co. KG, Hannover/Germany <sup>1</sup>	100.00	EUR	75,123	3,875
HR Verwaltungs-GmbH, Hannover/Germany <sup>1</sup>	100.00	EUR	12	(1)
Hannover America Private Equity Partners II GmbH & Co. KG, Hannover/Germany <sup>1</sup>	95.42	EUR	237,381	40,194
HAPEP II Holding GmbH, Hannover/Germany <sup>1</sup>	95.42	EUR	6,010	909
Hannover Re Global Alternatives GmbH & Co KG, Hannover/Germany <sup>1</sup>	94.72	EUR	41,628	2,852
Hannover Re Euro PE Holdings GmbH & Co, KG, Hannover/Germany <sup>1</sup>	91.20	EUR	251,203	20,291
Hannover Re Euro RE Holdings GmbH, Hannover/Germany <sup>1</sup>	87.68	EUR	886,721	21,602
HR GLL Central Europe GmbH & Co, KG, Munich/Germany <sup>1</sup>	87.67	EUR	326,930	4,334
HR GLL Central Europe Holding GmbH, Munich/Germany <sup>1</sup>	87.67	EUR	61,419	1,183
HAPEP II Komplementär GmbH, Hannover/Germany <sup>1</sup>	82.40	EUR	39	3
Hannover Euro Private Equity Partners III GmbH & Co. KG, Cologne/Germany <sup>1</sup>	67.54	EUR	633	11,738
HEPEP III Holding GmbH, Cologne/Germany <sup>1</sup>	67.54	EUR	2,627	1,618
E+S Rückversicherung AG, Hannover/Germany <sup>1</sup>	64.79	EUR	696,413	125,000
Hannover Euro Private Equity Partners IV GmbH & Co. KG, Cologne/Germany <sup>1</sup>	60.58	EUR	5,434	10,848

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
Hannover Euro Private Equity Partners II GmbH & Co. KG, Cologne/Deutschland <sup>1</sup>	57.89	EUR	1,226	1,044
HEPEP II Holding GmbH, Cologne/Germany <sup>1</sup>	57.89	EUR	22	(1,760)
<b>Affiliated non-consolidated companies</b>				
International Hannover Holding AG, Hannover/Germany <sup>4,5</sup>	100.00	EUR	39	(2)
Oval Office Grundstücks GmbH, Hannover/Germany <sup>1,4,6</sup>	50.00	EUR	1,589	(21)
<b>Associated companies</b>				
WeHaCo Unternehmensbeteiligungs-GmbH, Hannover/Germany <sup>7</sup>	32.96	EUR	83,207	11,857
HANNOVER Finanz GmbH, Hannover/Germany <sup>7</sup>	27.78	EUR	74,801	11,324
<b>Other participations</b>				
b2b protect GmbH, Hildesheim/Germany <sup>7</sup>	48.98	EUR	378	(361)
Internationale Schule Hannover Region GmbH, Hannover/Germany <sup>8,9</sup>	9.17	EUR	3,689	302
FinLeap GmbH, Berlin/Germany <sup>1,10</sup>	8.26	EUR	25,253	(3,470)
Nürnberger Beteiligungs-AG, Nuremberg/Germany <sup>7,9</sup>	1.75	EUR	630,154	44,618
<b>Foreign companies</b>				
<b>Affiliated consolidated companies</b>				
Hannover Finance (Luxembourg) S.A., Luxembourg/Luxembourg <sup>1</sup>	100.00	EUR	34,647	288
Hannover Finance (UK) Limited, London/United Kingdom <sup>1</sup>	100.00	GBP	2,703	(18)
Hannover Life Reassurance Bermuda Ltd., Hamilton/Bermuda <sup>1</sup>	100.00	USD	391,271	34,588
Hannover Life Reassurance Company of America, Orlando/USA <sup>1</sup>	100.00	USD	333,442	25,033
Hannover Life Reassurance Company of America (Bermuda) Ltd., Hamilton/Bermuda <sup>1</sup>	100.00	USD	9,233	2,395
Hannover Re (Ireland) Designated Activity Company, Dublin/Ireland <sup>1</sup>	100.00	USD	1,709,897	105,225
Hannover Life Re of Australasia Ltd, Sydney/Australia <sup>1</sup>	100.00	AUD	480,863	2,466
Hannover Re (Bermuda) Ltd., Hamilton/Bermuda <sup>1</sup>	100.00	USD	1,237,845	201,363
Hannover ReTakaful B.S.C. (c), Manama/Bahrain <sup>1</sup>	100.00	BHD	65,810	4,080
Hannover Services (UK) Limited, London/United Kingdom <sup>1</sup>	100.00	GBP	794	(66)
Inter Hannover (No. 1) Limited, London/United Kingdom <sup>1</sup>	100.00	GBP	(35)	–
Integra Insurance Solutions Limited, Bradford/United Kingdom <sup>7</sup>	100.00	GBP	2,789	2,748
The Congregational & General Insurance Public Limited Company, Bradford/United Kingdom <sup>1</sup>	100.00	GBP	11,920	2,891
Glencar Underwriting Managers, Inc., Chicago/USA <sup>7</sup>	100.00	USD	5,985	757
Leine Investment General Partner S.à r.l., Luxembourg/Luxembourg <sup>1,11</sup>	100.00	EUR	550	509



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
Leine Investment SICAV-SIF, Luxembourg/Luxembourg <sup>1, 11</sup>	100.00	USD	65,509	3,095
LI RE, Hamilton/Bermuda <sup>1, 11</sup>	100.00	USD	–	–
Fracom FCP, Paris/France <sup>12</sup>	100.00	EUR	1,219,475	18,479
Hannover Finance, Inc., Wilmington/USA <sup>1, 11</sup>	100.00	USD	163,451	7,617
Sand Lake Re, Inc., Burlington/USA <sup>1</sup>	100.00	USD	11,883	(117)
Hannover Reinsurance Group Africa (Pty) Ltd., Johannesburg/South Africa <sup>1</sup>	100.00	ZAR	219,820	209,916
Hannover Life Reassurance Africa Limited, Johannesburg/South Africa <sup>1</sup>	100.00	ZAR	555,797	31,770
Hannover Reinsurance Africa Limited, Johannesburg/South Africa <sup>1</sup>	100.00	ZAR	728,000	59,243
Compass Insurance Company Limited, Johannesburg/South Africa <sup>1</sup>	100.00	ZAR	195,883	33,692
Peachtree (Pty) Ltd., Johannesburg/South Africa <sup>4, 13</sup>	100.00	ZAR	–	–
Hannover Re Real Estate Holdings, Inc., Orlando/USA <sup>11</sup>	95.25	USD	654,438	8,864
GLL HRE CORE Properties, L.P., Wilmington/USA <sup>1, 11</sup>	95.15	USD	557,316	(310)
101BOS LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	51,322	445
11 Stanwix, LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	36,373	1,411
402 Santa Monica Blvd, LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	775	823
300 California, LLC, Wilmington/USA <sup>14</sup>	95.15	USD	–	–
111ORD LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	73,529	2,418
140EWR LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	79,402	(2,589)
7550IAD LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	76,260	1,151
Nashville West, LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	29,140	987
1225 West Washington, LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	24,082	1,020
975 Carroll Square, LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	51,145	1,156
Broadway 101, LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	12,518	626
River Terrace Parking, LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	20,028	364
3290ATL LLC, Wilmington/USA <sup>1, 11</sup>	95.15	USD	69,861	160
Commercial & Industrial Acceptances (Pty) Ltd., Johannesburg/South Africa	88.00	ZAR	6,680	25,811
Kaith Re Ltd., Hamilton/Bermuda <sup>1</sup>	88.00	USD	915	(327)
HR GLL Roosevelt Kft, Budapest/Hungary <sup>1</sup>	87.67	HUF	19,635,268	1,388,757

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
HR GLL Liberty Corner SPÓŁKA Z OGRANICZONA ODPOWIEDZIALNOSCIA, Warsaw/Poland <sup>1</sup>	87.67	PLN	45,973	(2,185)
HR GLL Griffin House SPÓŁKA Z OGRANICZONA ODPOWIEDZIALNOSCIA, Warsaw/Poland <sup>1</sup>	87.67	PLN	34,480	(3,629)
Akvamarín Beta s.r.o., Prague/Czech Republic <sup>1</sup>	87.67	CZK	87,899	34,132
HR GLL Europe Holding S.à r.l., Luxembourg/Luxembourg <sup>1</sup>	87.67	EUR	159,740	932
HR GLL CDG Plaza S.r.l., Bucharest/Romania <sup>1</sup>	87.67	RON	155,292	6,219
Pipera Business Park S.r.l., Bucharest/Romania <sup>1</sup>	87.67	RON	94,520	8,930
Mustela s.r.o., Prague/Czech Republic <sup>1</sup>	87.67	CZK	1,276,016	19,021
Lireas Holdings (Pty) Ltd., Johannesburg/South Africa <sup>1</sup>	70.00	ZAR	199,372	34,180
MUA Insurance Acceptances (Pty) Ltd., Cape Town/South Africa <sup>1</sup>	70.00	ZAR	8,925	4,709
Cargo Transit Insurance (Pty) Ltd., Helderkruijn/South Africa <sup>4, 15</sup>	56.00	ZAR	(4,499)	–
Svedea AB, Stockholm/Sweden <sup>7</sup>	53.00	SEK	6,119	626
SUM Holdings (Pty) Ltd., Johannesburg/South Africa <sup>1</sup>	50.54	ZAR	20,150	12,628
Firedart Engineering Underwriting Managers (Pty) Ltd., Johannesburg/South Africa <sup>1</sup>	49.00	ZAR	610	127
Garagesure Consultants and Acceptances (Pty) Ltd., Johannesburg/South Africa <sup>1</sup>	49.00	ZAR	1,464	2,887
Thatch Risk Acceptances (Pty) Ltd., Johannesburg/South Africa <sup>1</sup>	49.00	ZAR	2,733	2,135
Landmark Underwriting Agency (Pty) Ltd., Bloemfontein/South Africa <sup>1</sup>	45.85	ZAR	4,490	2,988
Hospitality Industrial and Commercial Underwriting Managers (Pty) Ltd., Johannesburg/South Africa <sup>1</sup>	45.49	ZAR	1,327	5,043
Construction Guarantee (Pty) Ltd., Johannesburg/South Africa <sup>4, 15</sup>	42.00	ZAR	–	–
Transit Underwriting Managers (Pty) Ltd., Cape Town/South Africa	39.67	ZAR	415	201
Envirosure Underwriting Managers (Pty) Ltd., Durban/South Africa	35.70	ZAR	3,212	1,944
Synergy Targeted Risk Solutions (Pty) Ltd., Johannesburg/South Africa	35.70	ZAR	2,042	–
Film & Entertainment Underwriters SA (Pty) Ltd., Johannesburg/South Africa <sup>1</sup>	35.70	ZAR	(709)	583
<b>Affiliated non-consolidated companies</b>				
International Mining Industry Underwriters Limited, London/United Kingdom <sup>1</sup>	100.00	GBP	131	23
HR Hannover Re. Correduría de Reaseguros. S.A., Madrid/Spain <sup>1</sup>	100.00	EUR	424	47
LRA Superannuation Plan Pty Ltd., Sydney/Australia <sup>14</sup>	100.00	AUD	–	–
Mediterranean Reinsurance Services Ltd., Hong Kong/China <sup>4, 7</sup>	100.00	USD	52	–
Hannover Re Services Japan, Tokyo/Japan <sup>1</sup>	100.00	JPY	114,354	11,892

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
Hannover Re Consulting Services India Private Limited, Mumbai/India <sup>16</sup>	100.00	INR	101,793	10,523
Hannover Services (México) S.A. de C.V., Mexico City/Mexico <sup>7</sup>	100.00	MXN	8,025	(909)
Hannover Re Services USA, Inc., Itasca/USA	100.00	USD	3,474	(31)
Hannover Rück SE Escritório de Representação no Brasil Ltda., Rio de Janeiro/Brazil <sup>7</sup>	100.00	BRL	2,923	483
L & E Holdings Limited, London/United Kingdom <sup>1</sup>	100.00	GBP	5	–
London & European Title Insurance Services Limited, London/United Kingdom <sup>1</sup>	100.00	GBP	390	91
Iconica Business Services Limited, Bradford/United Kingdom <sup>7</sup>	100.00	GBP	1,760	122
Hannover Re Risk Management Services India Private Limited, New Delhi/India <sup>16</sup>	100.00	INR	67,945	15,719
Hannover Re Services Italy S.r.l., Milan/Italy	99.65	EUR	365	102
Dowset Investments Spółka z ograniczona odpowiedzialnoscia, Warsaw/Poland <sup>1</sup>	87.67	PLN	(22)	(27)
U FOR LIFE SDN. BHD., Petaling Jaya/Malaysia <sup>7</sup>	60.00	MYR	(6,177)	(5,487)
HMIA Pty Ltd, Sydney/Australia <sup>7</sup>	55.00	AUD	(313)	(185)
Svedea Skadeservice AB, Stockholm/Sweden <sup>17</sup>	53.00	SEK	284	234
<b>Associated companies</b>				
ITAS Vita S.p.A., Trento/Italy <sup>7</sup>	34.88	EUR	98,161	4,014
Clarendon Transport Underwriting Managers (Pty) Ltd., Johannesburg/South Africa <sup>1</sup>	26.11	ZAR	17,431	12,782
Clarenfin (Pty) Ltd., Johannesburg/South Africa <sup>1</sup>	26.11	ZAR	126	(30)
Vela Taxi Finance (Pty) Ltd., Johannesburg/South Africa <sup>1</sup>	14.36	ZAR	(2,849)	(2,036)
<b>Other participations</b>				
Reaseguradora del Ecuador S.A., Guayaquil/Ecuador <sup>7</sup>	30.00	USD	10,433	1,092
Energi, Inc., Peabody/USA <sup>7</sup>	28.50	USD	20,168	(1,437)
Energi Insurance Services, Inc., Peabody/USA <sup>7</sup>	28.50	USD	1,021	289
Energi of Canada Ltd., Toronto/Canada <sup>7</sup>	28.50	CAD	42	(559)
Energi RE, LLC, Wilmington/USA <sup>7</sup>	28.50	USD	22,264	749
Hurst Holme Insurance Company Limited – account 2006-03 SCC, Hamilton/Bermuda <sup>4, 7</sup>	28.50	USD	160	(69)
E Claims Management. Inc., Peabody/USA <sup>14</sup>	28.50	USD	–	–
E-Marketing Strategies, Inc., Peabody/USA <sup>18</sup>	28.50	USD	–	–
E-Risk Solutions, Inc., Peabody/USA <sup>18</sup>	28.50	USD	–	–

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
E-Technology Services. Inc., Peabody/USA <sup>18</sup>	28.50	USD	–	–
David Edwards Insurance Brokers Limited, Solihull/United Kingdom <sup>1, 16</sup>	21.00	GBP	148	191
Meribel Topco Limited, St. Helier/Jersey <sup>1</sup>	20.11	EUR	2,490	20,543
Meribel Midco Limited, St. Helier/Jersey <sup>1</sup>	20.11	EUR	57,248	92,352
Monument Insurance Group Limited, Hamilton/Bermuda <sup>18</sup>	20.00	USD	–	–
Monument Midco Limited, Hamilton/Bermuda <sup>18</sup>	20.00	USD	–	–
Monument Finco Limited, George Town/Cayman Islands <sup>18</sup>	20.00	USD	–	–
Monument Re Limited, Hamilton/Bermuda <sup>18</sup>	20.00	USD	–	–
Inlife Holding (Liechtenstein) AG, Triesen/Liechtenstein <sup>9, 19</sup>	15.00	CHF	10,713	7,450
Life Invest Holding AG, Zurich/Switzerland <sup>1, 9, 20</sup>	15.00	CHF	38,776	36,776
Sureify Labs, Inc., Wilmington/USA <sup>1, 8, 10</sup>	14.82	USD	(456)	(364)
Somerset Reinsurance Ltd., Hamilton/Bermuda <sup>1, 10, 21</sup>	12.31	USD	34,418	(9,262)
Weisshorn Re AG, Zurich/Switzerland <sup>7, 10</sup>	12.31	CHF	20,608	(18)
Acte Vie S.A., Schiltigheim/France <sup>7</sup>	9.38	EUR	9,088	92
Liberty Life Insurance Public Company Ltd, Nicosia/Cyprus <sup>7, 9</sup>	3.30	EUR	11,427	821

<sup>1</sup> Provisional (unaudited) figures

<sup>2</sup> Year-end result after profit transfer

<sup>3</sup> Financial year as at 30 September 2016

<sup>4</sup> Company is in liquidation

<sup>5</sup> Abbreviated financial year from 1 January 2015 to 30 June 2015

<sup>6</sup> Abbreviated financial year from 1 April 2016 to 31 December 2016

<sup>7</sup> Figures as at 31 December 2015

<sup>8</sup> Financial year as at 31 July 2016

<sup>9</sup> Listed for the first time based on requirement of Accounting Directive Implementing Act (BilRUG)

<sup>10</sup> Addition in 2016 financial year, listed based on requirement of Accounting Directive Implementing Act (BilRUG)

<sup>11</sup> IFRS figures

<sup>12</sup> Financial year as at 31 October 2016

<sup>13</sup> Figures as at 31 December 2014

<sup>14</sup> Company is inactive

<sup>15</sup> Figures as at 31 December 2013

<sup>16</sup> Financial year as at 31 March 2016

<sup>17</sup> Financial year from 7 October 2014 to 31 December 2015

<sup>18</sup> Company was newly established in 2016; an annual financial statement is not yet available.

<sup>19</sup> Financial year from 24 August 2015 to 31 December 2015

<sup>20</sup> Financial year from 5 June 2015 to 31 December 2016

<sup>21</sup> Formerly Weisshorn Re Ltd., Hamilton/Bermuda

## 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 <sup>1</sup>		Net income <sup>1</sup>	
	2016	2015	2016	2015
<b>Hannover Rück SE</b>				
Hannover Rueck SE Australian Branch, Sydney/Australia	170,556	135,928	11,261	30,686
Hannover Rück SE Canadian Branch, Toronto/Canada	254,702	206,295	34,712	35,161
Hannover Rück SE, Hong Kong Branch, Wanchai/Hong Kong	260,814	171,721	17,858	6,999
Hannover Rueck SE Malaysian Branch, Kuala Lumpur/Malaysia	427,194	354,915	27,222	23,345
Hannover Rück SE, Tyskland Filial, Stockholm/Sweden	235,154	220,102	21,719	2,895
Hannover Rück SE Succursale Francaise, Paris/France	710,352	710,849	34,762	(26,442)
Hannover Rueck SE Bahrain Branch, Manama/Bahrain	129,902	145,992	1,258	(2,707)
Hannover Rück SE Shanghai Branch, Shanghai/China	697,727	1,254,150	11,466	20,465
Hannover Rück SE Korea Branch, Seoul/South Korea	46,789	46,013	2,086	2,631
Hannover Re UK Life Branch, London/United Kingdom	284,357	299,435	12,356	2,114
<b>International Insurance Company of Hannover SE</b>				
International Insurance Company of Hannover SE, Australian Branch, Sydney/Australia	32,558	23,966	59	789
International Insurance Company of Hannover SE, Canadian Branch, Toronto/Canada	65,761	33,450	1,036	(247)
International Insurance Company of Hannover SE, Italian Branch, Milan/Italy <sup>2</sup>				
International Insurance Company of Hannover SE, Scandinavian Branch, Stockholm/Sweden	192,910	186,020	4,249	4,359
International Insurance Company of Hannover SE, UK Branch, London/United Kingdom	333,358	412,952	3,532	(1,078)

<sup>1</sup> Figures before consolidation

<sup>2</sup> Branch is in liquidation.

In addition, other companies belonging to the Hannover Re Group maintain further branches in New Zealand, Canada and Bahrain 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).

## 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

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.

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 3,239.4 million (EUR 2,893.3 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 70.3 million (EUR 108.3 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 is largely structured through the use of structured entities.

The catastrophe bond (CAT bond) Eurus III was issued by Hannover Re for the purpose of transferring to the capital market peak natural catastrophe exposures deriving from European windstorm events. The CAT bond, which had a volume of nominally EUR 100.0 million and a maturity date of 31 March 2016, was placed by Eurus III Ltd., a special purpose entity domiciled in Hamilton/Bermuda. The structured entity was fully funded by contractually defined investments in the form of cash and equivalent liquid assets. Given that the maximum liability of the structured entity was therefore wholly collateralised, there was no risk of loss for Hannover Re. The transaction had ended as at the balance sheet date.

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 384.4 million (EUR 304.0 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 1,844.7 million (EUR 1,872.6 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 4,914.2 million (EUR 4,701.0 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 2,860.6 million (EUR 2,779.9 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

in EUR thousand	31.12.2016		
	General investing activities	Investment in catastrophe bonds (ILS)	Retrocession: securitisations and ILS transactions
<b>Assets</b>			
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
<b>Total assets</b>	<b>3,239,417</b>	<b>70,291</b>	<b>454,708</b>
<b>Liabilities</b>			
Reinsurance payable	–	–	241,597
<b>Total liabilities</b>	<b>–</b>	<b>–</b>	<b>241,597</b>

in EUR thousand	31.12.2015		
	General investing activities	Investment in catastrophe bonds (ILS)	Retrocession: securitisations and ILS transactions
<b>Assets</b>			
Fixed-income securities – held to maturity	968	–	–
Fixed-income securities – loans and receivables	16,357	–	–
Fixed-income securities – available for sale	1,628,911	–	–
Fixed-income securities – at fair value through profit or loss	–	108,273	–
Equity securities – available for sale	139,745	–	–
Real estate and real estate funds	371,254	–	–
Other invested assets	717,253	–	–
Short-term investments	18,763	–	–
Reinsurance recoverables on unpaid claims	–	–	137,892
Prepaid reinsurance premium	–	–	29,869
Accounts receivable	–	–	188
<b>Total assets</b>	<b>2,893,251</b>	<b>108,273</b>	<b>167,949</b>
<b>Liabilities</b>			
Reinsurance payable	–	–	32,256
<b>Total liabilities</b>	<b>–</b>	<b>–</b>	<b>32,256</b>

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 10 May 2016 Hannover Re 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. The purchase price of the shares amounted to EUR 11.3 million. Along with the company, Hannover Re also acquired its 25% stake in Integra Insurance Solutions Limited, Bradford, UK. In total, therefore, Hannover Re holds all the shares through various subsidiaries.

The business was included in the consolidated financial statement for the first time as at 1 May 2016. 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:

<b>Assets and liabilities of the acquired business</b>		<b>N 15</b>
in EUR thousand		1.5.2016
<b>Assets</b>		
Fixed-income securities – available for sale		4,845
Equity securities – available for sale		1,116
Investments in associated companies		13,699
Cash and cash equivalents		2,629
Reinsurance recoverables on unpaid claims		2,733
Prepaid reinsurance premium		3,313
Deferred acquisition costs		1,395
Accounts receivable		2,903
Deferred tax assets		440
Other assets		2,583
Accrued interest and rent		112
		<b>35,768</b>
<b>Liabilities</b>		
Loss and loss adjustment expense reserve		4,408
Unearned premium reserve		4,926
Reinsurance payable		2,047
Provisions for pensions		1,353
Other liabilities		1,163
		<b>13,897</b>
<b>Net assets</b>		<b>21,871</b>

In view of the fact that the fair values of the recognised, identifiable assets, liabilities and contingent commitments exceed the acquisition costs associated with the transaction, the capital consolidation gave rise to negative goodwill of EUR 10.5 million which was recognised immediately in income in accordance with the requirements of IFRS 3.34.

This non-recurring item from the transaction is accounted for in the consolidated statement of income under other operating income. The negative goodwill resulted primarily from the limitation of the revaluation of the assumed pension provisions to the amount that was to be recognised in accordance with IAS 19 as required by IFRS 3.26.

The gross written premium of the assumed business from the date of initial consolidation until the balance sheet date amounted to EUR 1.7 million. For the same period net income of EUR 0.8 million was booked from the assumed business. This does not include the other operating income resulting from reversal of the negative goodwill.

Effective 8 January 2016 Funis GmbH & Co. KG (“Funis”), a wholly owned subsidiary of Hannover Rück SE, increased its interest in the share capital of Glencar Underwriting Managers Inc. (“Glencar”), Chicago, USA, from 49% to 100% and thereby acquired control of the company. Glencar, which had previously been included at equity in the consolidated financial

statements, was therefore consolidated as a subsidiary from the first quarter of 2016 onwards. Derecognition of the assets and liabilities and measurement of the previous shares at fair value gave rise to an expense of EUR 0.7 million that was recognised in investment income. In addition, cumulative other comprehensive income from currency translation amounting to EUR 1.2 million was realised. A purchase price of EUR 5.6 million was paid for the acquisition of the remaining shares. In the context of the purchase price allocation, the calculation of the fair values of acquired assets and assumed liabilities undertaken for the purposes of initial consolidation gave rise to goodwill of EUR 5.4 million.

## 4.4 Major disposals and retirements

Atlantic Capital Corporation, Wilmington, which was owned by Hannover Finance, Inc., Wilmington, was liquidated on 22 December 2016. Deconsolidation had no effect on income.

Following the sale of the property that it held and repatriation of the capital in the previous year, Oval Office Grundstücks GmbH, Hannover, ceased its business operations. Against this backdrop, the measurement of the company at equity was discontinued on materiality grounds with effect from the first

quarter of 2016 and since then the company has been recognised as a participating interest at amortised cost. The expense resulting from deconsolidation was in a negligible amount.

Within the 95.1%-owned US subgroup Hannover Re Real Estate Holdings, Inc., the special purpose property companies 101BOS LLC and 3290ATL LLC, both of which have their registered office in Wilmington, were established via the subsidiary GLL HRE Core Properties, LP, for the purpose of real estate acquisition. Altogether, an amount of roughly EUR 114.0 million was invested in this connection.

Within the US subgroup Hannover Re Real Estate Holdings, Inc., the special purpose property company 300 South Orange Avenue, LLC, Orlando, was liquidated in December 2016. The property previously held by the company had already been sold at the end of 2014.

## 4.5 Other corporate changes

The Irish Companies Act 2014 requires all insurance companies to change their legal form to a Designated Activity Company (DAC). In the case of the Group company Hannover Re (Ireland) Designated Activity Company, Dublin, Ireland, formerly Hannover Re (Ireland) Limited, the change of legal form took place effective 8 December 2016. This change has no implications for the business operations of the company or for the net assets, financial position or result of operations of the Group.

## 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.

Both The Congregational & General Insurance Public Limited Company (CGI), Bradford, UK, Glencar Underwriting Managers Inc., Chicago, USA, and the special purpose property companies 101BOS LLC and 3290ATL LLC, both of which have their registered office in Wilmington, USA – which were consolidated for the first time in 2016 – and Oval Office Grundstücks GmbH, Hannover, and 300 South Orange Avenue, LLC, Orlando, USA – which were deconsolidated – are allocated to the property and casualty reinsurance segment.

## Segmentation of assets

in EUR thousand

## Property and casualty reinsurance

	31.12.2016	31.12.2015 <sup>1</sup>
<b>Assets</b>		
Fixed-income securities – held to maturity	342,793	810,256
Fixed-income securities – loans and receivables	2,539,270	2,807,317
Fixed-income securities – available for sale	24,337,185	21,779,850
Equity securities – available for sale	905,307	452,108
Financial assets at fair value through profit or loss	73,352	110,836
Other invested assets	3,391,140	3,236,748
Short-term investments	259,598	244,817
Cash and cash equivalents	579,112	638,305
<b>Total investments and cash under own management</b>	<b>32,427,757</b>	<b>30,080,237</b>
Funds withheld	1,263,533	1,284,958
Contract deposits	(105)	497
<b>Total investments</b>	<b>33,691,185</b>	<b>31,365,692</b>
Reinsurance recoverables on unpaid claims	1,250,770	1,070,380
Reinsurance recoverables on benefit reserve	–	–
Prepaid reinsurance premium	133,858	162,529
Reinsurance recoverables on other reserves	3,590	6,860
Deferred acquisition costs	758,429	696,406
Accounts receivable	2,130,342	2,167,691
Other assets in the segment	1,115,251	1,334,802
Assets held for sale	15,086	–
<b>Total assets</b>	<b>39,098,511</b>	<b>36,804,360</b>

## Segmentation of liabilities

in EUR thousand

<b>Liabilities</b>		
Loss and loss adjustment expense reserve	24,010,367	22,822,777
Benefit reserve	–	–
Unearned premium reserve	3,171,056	3,019,217
Provisions for contingent commissions	127,865	119,668
Funds withheld	456,877	425,360
Contract deposits	(3,628)	4,448
Reinsurance payable	675,669	655,157
Long-term liabilities	313,378	308,484
Other liabilities in the segment	2,150,083	2,135,696
<b>Total liabilities</b>	<b>30,901,667</b>	<b>29,490,807</b>

<sup>1</sup> Adjusted pursuant to IAS 8 (cf. section 3.1)

Life and health reinsurance		Consolidation		Total	
31.12.2016	31.12.2015 <sup>1</sup>	31.12.2016	31.12.2015 <sup>1</sup>	31.12.2016	31.12.2015 <sup>1</sup>
134,045	163,890	8,117	33,519	484,955	1,007,665
24,324	62,548	–	–	2,563,594	2,869,865
7,831,889	7,598,153	13,099	238,445	32,182,173	29,616,448
–	–	–	–	905,307	452,108
224,230	37,748	–	–	297,582	148,584
210,413	109,574	70,677	177	3,672,230	3,346,499
565,899	839,122	13,490	800	838,987	1,084,739
267,623	177,537	1,932	5,153	848,667	820,995
<b>9,258,423</b>	<b>8,988,572</b>	<b>107,315</b>	<b>278,094</b>	<b>41,793,495</b>	<b>39,346,903</b>
10,409,726	12,516,887	–	–	11,673,259	13,801,845
170,610	188,107	–	–	170,505	188,604
<b>19,838,759</b>	<b>21,693,566</b>	<b>107,315</b>	<b>278,094</b>	<b>53,637,259</b>	<b>53,337,352</b>
255,716	325,515	(194)	(614)	1,506,292	1,395,281
1,189,420	1,367,173	–	–	1,189,420	1,367,173
1,069	1,517	–	(23)	134,927	164,023
8,641	1,827	–	–	12,231	8,687
1,439,660	1,398,264	–	1	2,198,089	2,094,671
1,547,740	1,498,436	(52)	(190)	3,678,030	3,665,937
723,648	675,435	(681,631)	(828,423)	1,157,268	1,181,814
–	–	–	–	15,086	–
<b>25,004,653</b>	<b>26,961,733</b>	<b>(574,562)</b>	<b>(551,155)</b>	<b>63,528,602</b>	<b>63,214,938</b>
4,119,245	3,734,225	(194)	(614)	28,129,418	26,556,388
10,289,854	12,206,721	–	(22)	10,289,854	12,206,699
169,595	140,146	–	–	3,340,651	3,159,363
234,525	205,860	–	–	362,390	325,528
777,196	839,675	–	–	1,234,073	1,265,035
4,301,971	4,678,036	–	–	4,298,343	4,682,484
539,581	735,027	786	(178)	1,216,036	1,390,006
–	–	1,490,840	1,489,853	1,804,218	1,798,337
1,659,712	1,747,491	(696,723)	(829,559)	3,113,072	3,053,628
<b>22,091,679</b>	<b>24,287,181</b>	<b>794,709</b>	<b>659,480</b>	<b>53,788,055</b>	<b>54,437,468</b>



## Consolidated segment report as at 31 December

### Segment statement of income

in EUR thousand

### Property and casualty reinsurance

	1.1. – 31.12.2016	1.1. – 31.12.2015
Gross written premium	9,204,554	9,337,973
thereof		
From insurance business with other segments	–	–
From insurance business with external third parties	9,204,554	9,337,973
Net premium earned	7,985,047	8,099,717
Net investment income	900,919	944,962
thereof		
Change in fair value of financial instruments	2,452	851
Total depreciation, impairments and appreciation of investments	75,997	35,556
Income/expense on funds withheld and contract deposits	24,031	20,162
Claims and claims expenses	5,330,662	5,616,450
Change in benefit reserve	–	–
Commission and brokerage, change in deferred acquisition costs and other technical income/expenses	1,975,912	1,849,059
Administrative expenses	199,380	201,962
Other income and expenses	(39,720)	(35,900)
<b>Operating profit/loss (EBIT)</b>	<b>1,340,292</b>	<b>1,341,308</b>
Interest on hybrid capital	–	–
<b>Net income before taxes</b>	<b>1,340,292</b>	<b>1,341,308</b>
Taxes	339,064	368,383
<b>Net income</b>	<b>1,001,228</b>	<b>972,925</b>
thereof		
Non-controlling interest in profit or loss	51,337	58,198
<b>Group net income</b>	<b>949,891</b>	<b>914,727</b>

Life and health reinsurance		Consolidation		Total	
1.1. – 31.12.2016	1.1. – 31.12.2015	1.1. – 31.12.2016	1.1. – 31.12.2015	1.1. – 31.12.2016	1.1. – 31.12.2015
7,149,023	7,730,885	45	(195)	16,353,622	17,068,663
(45)	195	45	(195)	–	–
7,149,068	7,730,690	–	–	16,353,622	17,068,663
6,432,387	6,492,412	181	913	14,417,615	14,593,042
638,898	709,173	10,603	10,958	1,550,420	1,665,093
23,702	50	(88)	–	26,066	901
31	177	–	2,365	76,028	38,098
308,118	374,871	–	–	332,149	395,033
5,480,293	5,458,957	370	–	10,811,325	11,075,407
80,490	101,123	22	34	80,512	101,157
1,032,384	1,075,078	2	2	3,008,298	2,924,139
201,973	197,254	192	(704)	401,545	398,512
67,122	35,919	(4,409)	(3,703)	22,993	(3,684)
<b>343,267</b>	<b>405,092</b>	<b>5,789</b>	<b>8,836</b>	<b>1,689,348</b>	<b>1,755,236</b>
–	–	71,693	84,316	71,693	84,316
<b>343,267</b>	<b>405,092</b>	<b>(65,904)</b>	<b>(75,480)</b>	<b>1,617,655</b>	<b>1,670,920</b>
86,522	109,713	(34,357)	(21,889)	391,229	456,207
<b>256,745</b>	<b>295,379</b>	<b>(31,547)</b>	<b>(53,591)</b>	<b>1,226,426</b>	<b>1,214,713</b>
3,860	5,790	–	–	55,197	63,988
<b>252,885</b>	<b>289,589</b>	<b>(31,547)</b>	<b>(53,591)</b>	<b>1,171,229</b>	<b>1,150,725</b>

## 6. Notes on the individual items of the balance sheet

### 6.1 Investments under own management

Investments are classified and measured in accordance with IAS 39 “Financial Instruments: Recognition and Measurement”.

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 are determined by the investment intent.

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

Investments		N 17	
in EUR thousand		2016	2015
<b>Regional origin</b>			
Germany		7,512,169	7,039,131
United Kingdom		2,705,587	2,959,291
France		1,834,876	1,605,671
Other		6,850,690	6,763,836
<b>Europe</b>		<b>18,903,322</b>	<b>18,367,929</b>
USA		14,141,199	12,525,280
Other		1,783,517	1,613,473
<b>North America</b>		<b>15,924,716</b>	<b>14,138,753</b>
Asia		2,210,353	2,429,402
Australia		2,435,296	2,352,170
<b>Australasia</b>		<b>4,645,649</b>	<b>4,781,572</b>
Africa		403,407	334,691
Other		1,916,401	1,723,958
<b>Total</b>		<b>41,793,495</b>	<b>39,346,903</b>

## Maturities of the fixed-income and variable-yield securities

N 18

in EUR thousand	2016		2015	
	Amortised cost <sup>1</sup>	Fair value	Amortised cost <sup>1</sup>	Fair value
<b>Held to maturity</b>				
due in one year	144,327	145,003	516,518	523,403
due after one through two years	87,517	90,601	142,835	147,242
due after two through three years	28,500	30,907	92,480	96,765
due after three through four years	35,083	40,284	28,933	31,692
due after four through five years	140,256	162,586	35,024	40,966
due after five through ten years	48,276	54,398	190,907	219,086
due after more than ten years	996	311	968	323
<b>Total</b>	<b>484,955</b>	<b>524,090</b>	<b>1,007,665</b>	<b>1,059,477</b>
<b>Loans and receivables</b>				
due in one year	209,243	210,524	411,608	422,774
due after one through two years	140,840	144,552	280,642	289,989
due after two through three years	185,067	198,725	152,075	159,589
due after three through four years	228,296	247,919	200,139	219,242
due after four through five years	329,506	354,351	220,728	243,500
due after five through ten years	987,545	1,194,792	898,664	1,035,482
due after more than ten years	483,097	543,506	706,009	858,523
<b>Total</b>	<b>2,563,594</b>	<b>2,894,369</b>	<b>2,869,865</b>	<b>3,229,099</b>
<b>Available for sale</b>				
due in one year <sup>2</sup>	4,470,510	4,479,500	4,088,058	4,096,488
due after one through two years	3,382,457	3,404,847	3,889,262	3,915,448
due after two through three years	2,820,187	2,866,629	3,803,539	3,827,843
due after three through four years	3,748,106	3,841,259	2,572,827	2,624,891
due after four through five years	3,134,627	3,190,102	3,829,675	3,915,469
due after five through ten years	11,351,605	11,588,659	9,449,584	9,659,645
due after more than ten years	4,234,143	4,498,831	3,253,590	3,482,398
<b>Total</b>	<b>33,141,635</b>	<b>33,869,827</b>	<b>30,886,535</b>	<b>31,522,182</b>
<b>Financial assets at fair value through profit or loss</b>				
due in one year	11,698	11,698	13,703	13,703
due after one through two years	210,510	210,510	19,027	19,027
due after two through three years	7,881	7,881	53,432	53,432
due after three through four years	9,828	9,828	19,841	19,841
due after four through five years	–	–	2,979	2,979
<b>Total</b>	<b>239,917</b>	<b>239,917</b>	<b>108,982</b>	<b>108,982</b>

<sup>1</sup> Including accrued interest

<sup>2</sup> 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**

in EUR thousand	2016				
	Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
<b>Investments held to maturity</b>					
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
<b>Total</b>	<b>484,955</b>	<b>9,522</b>	<b>39,824</b>	<b>689</b>	<b>524,090</b>

**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**

in EUR thousand	2015				
	Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
<b>Investments held to maturity</b>					
Fixed-income securities					
Government debt securities of EU member states	163,206	4,126	2,395	7	165,594
US Treasury notes	82,688	646	139	–	82,827
Other foreign government debt securities	20,074	65	65	–	20,139
Debt securities issued by semi-governmental entities	219,019	4,317	6,503	–	225,522
Corporate securities	92,070	1,521	7,635	81	99,624
Covered bonds/asset-backed securities	430,608	9,255	35,808	645	465,771
<b>Total</b>	<b>1,007,665</b>	<b>19,930</b>	<b>52,545</b>	<b>733</b>	<b>1,059,477</b>

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

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

in EUR thousand	2016				
	Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
<b>Loans and receivables</b>					
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
<b>Total</b>	<b>2,563,594</b>	<b>39,394</b>	<b>336,120</b>	<b>5,345</b>	<b>2,894,369</b>

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

in EUR thousand	2015				
	Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
<b>Loans and receivables</b>					
Debt securities issued by semi-governmental entities	1,595,127	26,617	243,934	1	1,839,060
Corporate securities	468,607	5,906	18,604	4,732	482,479
Covered bonds/asset-backed securities	806,131	12,968	101,457	28	907,560
<b>Total</b>	<b>2,869,865</b>	<b>45,491</b>	<b>363,995</b>	<b>4,761</b>	<b>3,229,099</b>

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**

in EUR thousand	2016				
	Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
<b>Available for sale</b>					
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
	<b>31,453,981</b>	<b>259,405</b>	<b>1,050,529</b>	<b>322,337</b>	<b>32,182,173</b>
Equity securities					
Shares	554,419	–	100,114	5,079	649,454
Investment funds	212,293	–	43,560	–	255,853
	<b>766,712</b>	<b>–</b>	<b>143,674</b>	<b>5,079</b>	<b>905,307</b>
Short-term investments	838,987	2,367	–	–	838,987
<b>Total</b>	<b>33,059,680</b>	<b>261,772</b>	<b>1,194,203</b>	<b>327,416</b>	<b>33,926,467</b>



**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	2015 <sup>1</sup>				
	Amortised cost including accrued interest	thereof accrued interest	Unrealised gains	Unrealised losses	Fair value
<b>Available for sale</b>					
Fixed-income securities					
Government debt securities of EU member states	2,394,804	19,460	135,191	3,849	2,526,146
US Treasury notes	5,382,835	12,699	13,566	32,877	5,363,524
Other foreign government debt securities	2,148,576	18,299	25,602	38,766	2,135,412
Debt securities issued by semi-governmental entities	4,436,469	41,568	236,064	11,728	4,660,805
Corporate securities	11,911,422	140,011	320,712	168,280	12,063,854
Covered bonds/asset-backed securities	2,599,092	27,919	147,909	19,549	2,727,452
Investment funds	107,603	–	33,096	1,444	139,255
	<b>28,980,801</b>	<b>259,956</b>	<b>912,140</b>	<b>276,493</b>	<b>29,616,448</b>
Equity securities					
Shares	290,609	–	26,733	4,979	312,363
Investment funds	125,744	–	14,001	–	139,745
	<b>416,353</b>	<b>–</b>	<b>40,734</b>	<b>4,979</b>	<b>452,108</b>
Short-term investments	1,084,739	1,585	–	–	1,084,739
<b>Total</b>	<b>30,481,893</b>	<b>261,541</b>	<b>952,874</b>	<b>281,472</b>	<b>31,153,295</b>

<sup>1</sup> Adjusted pursuant to IAS 8 (cf. section 3.1)

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	2016	2015	2016	2015	2016	2015
	Fair value before accrued interest		Accrued interest		Fair value	
<b>Financial assets at fair value through profit or loss</b>						
Fixed-income securities						
Corporate securities	239,917	108,566	–	416	239,917	108,982
	<b>239,917</b>	<b>108,566</b>	<b>–</b>	<b>416</b>	<b>239,917</b>	<b>108,982</b>
Other financial assets						
Derivatives	57,665	39,602	–	–	57,665	39,602
	<b>57,665</b>	<b>39,602</b>	<b>–</b>	<b>–</b>	<b>57,665</b>	<b>39,602</b>
<b>Total</b>	<b>297,582</b>	<b>148,168</b>	<b>–</b>	<b>416</b>	<b>297,582</b>	<b>148,584</b>

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 57.7 million (EUR 39.6 million) that are originally allocable to this item as well as fixed-income securities amounting to EUR 239.9 million (EUR 109.0 million) designated in this category. The increase in this item is largely attributable to a structured bond that was acquired in connection with a retrocession treaty 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 fair value reductions of EUR 2.2 million were attributable to a changed credit risk. In the previous year no fair value changes 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

in EUR thousand	2016		2015 <sup>1</sup>	
	Carrying amount before impairment	Impairment	Carrying amount before impairment	Impairment
Fixed-income securities – held to maturity	484,955	–	1,010,030	2,365
Fixed-income securities – loans and receivables	2,563,594	–	2,869,865	–
Fixed-income securities – available for sale	32,182,862	689	29,616,845	397
Short-term investments	838,987	–	1,084,739	–
Equity securities – available for sale	935,448	30,141	453,997	1,889
Participating interests and other invested assets, real estate funds	2,170,696	15,342	1,922,482	6,694
<b>Total</b>	<b>39,176,542</b>	<b>46,172</b>	<b>36,957,958</b>	<b>11,345</b>

<sup>1</sup> Adjusted pursuant to IAS 8 (cf. section 3.1)

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	2016								Total
	AAA	AA	A	BBB	BB	B	C	Other	
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
<b>Total fixed-income securities</b>	<b>16,255,194</b>	<b>5,584,696</b>	<b>5,694,317</b>	<b>6,301,061</b>	<b>990,607</b>	<b>151,673</b>	<b>3,251</b>	<b>489,840</b>	<b>35,470,639</b>

## Rating structure of fixed-income securities

N28

in EUR thousand	2015								Total
	AAA	AA	A	BBB	BB	B	C	Other	
Fixed-income securities – held-to-maturity	594,316	218,555	136,257	58,537	–	–	–	–	1,007,665
Fixed-income securities – loans and receivables	1,869,317	551,144	184,580	157,506	82,178	4,925	–	20,215	2,869,865
Fixed-income securities – available-for-sale	12,270,732	5,002,570	5,971,866	5,329,934	806,651	114,680	6,258	113,757	29,616,448
Fixed-income securities – at fair value through profit or loss	–	–	–	–	54,033	8,982	–	45,967	108,982
<b>Total fixed-income securities</b>	<b>14,734,365</b>	<b>5,772,269</b>	<b>6,292,703</b>	<b>5,545,977</b>	<b>942,862</b>	<b>128,587</b>	<b>6,258</b>	<b>179,939</b>	<b>33,602,960</b>

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

Breakdown of investments by currencies

N 29

in EUR thousand	2016								Total
	AUD	CAD	CNY	EUR	GBP	USD	ZAR	Other	
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
<b>Total</b>	<b>2,144,355</b>	<b>1,208,193</b>	<b>479,848</b>	<b>12,640,843</b>	<b>2,903,797</b>	<b>20,190,306</b>	<b>363,383</b>	<b>1,862,770</b>	<b>41,793,495</b>

## Breakdown of investments by currencies

N30

in EUR thousand	2015								Total
	AUD	CAD	CNY	EUR	GBP	USD	ZAR	Other	
Fixed-income securities – held to maturity	–	58,813	–	628,496	80,673	239,683	–	–	1,007,665
Fixed-income securities – loans and receivables	–	–	87,851	2,107,800	47,801	626,413	–	–	2,869,865
Fixed-income securities – available-for-sale	1,923,332	886,984	191,808	7,042,147	3,051,928	15,131,219	181,058	1,207,972	29,616,448
Fixed-income securities – at fair value through profit or loss	–	–	–	5,061	709	103,212	–	–	108,982
Equity securities – available-for-sale	–	–	–	333,222	–	118,886	–	–	452,108
Other financial assets – at fair value through profit or loss	–	–	–	9,045	1,265	29,292	–	–	39,602
Other invested assets	–	–	–	1,670,086	2,592	1,653,348	10,032	10,441	3,346,499
Short-term investments, cash	86,202	22,175	407,697	325,441	62,564	490,382	99,771	411,502	1,905,734
<b>Total</b>	<b>2,009,534</b>	<b>967,972</b>	<b>687,356</b>	<b>12,121,298</b>	<b>3,247,532</b>	<b>18,392,435</b>	<b>290,861</b>	<b>1,629,915</b>	<b>39,346,903</b>

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.

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

N31

in EUR thousand	2016	2015
Group share of net income from continuing operations	9,101	19,169
Group share of income and expense recognised directly in equity	(9,087)	2,407
<b>Group share of total recognised income and expense</b>	<b>14</b>	<b>21,576</b>

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

#### Investments in associated companies

N32

in EUR thousand	2016	2015
<b>Net book value at 31 December of the previous year</b>	<b>128,008</b>	<b>154,822</b>
Currency translation at 1 January	263	113
<b>Net book value after currency translation</b>	<b>128,271</b>	<b>154,935</b>
Disposals	6,395	33,952
Profit or loss on investments in associated companies	9,101	19,169
Dividend payments	7,158	14,713
Change recognised outside income	(9,087)	2,407
Currency translation at 31 December	(99)	162
<b>Net book value at 31 December of the year under review</b>	<b>114,633</b>	<b>128,008</b>

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 18.5 million (EUR 21.9 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.

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

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.

## Development of investment property

N33

in EUR thousand	2016	2015
Gross book value at 31 December of the previous year	1,374,305	1,023,281
Currency translation at 1 January	22,117	39,440
<b>Gross book value after currency translation</b>	<b>1,396,422</b>	<b>1,062,721</b>
Additions	119,252	314,661
Disposals	17,969	6,935
Reclassification	–	26
Currency translation at 31 December	5,095	3,832
<b>Gross book value at 31 December of the year under review</b>	<b>1,502,800</b>	<b>1,374,305</b>
Cumulative depreciation at 31 December of the previous year	71,602	44,979
Currency translation at 1 January	1,260	2,402
<b>Cumulative depreciation after currency translation</b>	<b>72,862</b>	<b>47,381</b>
Disposals	1,592	2,748
Depreciation	28,885	23,750
Impairments	–	3,619
Appreciation	273	616
Reclassification	–	26
Currency translation at 31 December	675	190
<b>Cumulative depreciation at 31 December of the year under review</b>	<b>100,557</b>	<b>71,602</b>
<b>Net book value at 31 December of the previous year</b>	<b>1,302,703</b>	<b>978,302</b>
<b>Net book value at 1 January of the year under review</b>	<b>1,323,560</b>	<b>1,015,340</b>
<b>Net book value at 31 December of the year under review</b>	<b>1,402,243</b>	<b>1,302,703</b>

The fair value of investment property amounted to EUR 1,541.1 million (EUR 1,388.7 million) as at the balance sheet date.

The additions to this item are attributable to the increased investment activities of the real estate companies belonging to the Hannover Re Group, principally due to investments in the United States.

In terms of diversification across various real estate sectors the focus is on office properties (78%), followed by retail properties (17%). 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 (50%), Europe (excluding Germany; 29%) as well as Germany (21%).

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 one property was reclassified to assets held for sale. At the time of reclassification and at the end of the reporting period the gross book value of the property amounted to EUR 16.6 million (previous year: none) and the cumulative depreciation totalled EUR 1.5 million (previous year: none). Measurement of the property in the context of classification as a non-current asset held for sale did not give rise to an impairment loss.



In addition, we held indirect real estate investments measured at fair values in an amount of EUR 390.7 million (EUR 371.3 million) in the year under review, the amortised costs of which amounted to EUR 323.5 million (EUR 316.0 million). The differences between the carrying amounts and amortised

costs were recognised as unrealised gains of EUR 70.8 million (EUR 56.4 million) and unrealised losses of EUR 3.7 million (EUR 1.2 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 1,463.1 million (EUR 1,396.0 million), the amortised cost of which amounted to EUR 1,042.2 million (EUR 976.5 million). The differences between the carrying amounts and the amortised costs were recognised as unrealised gains of EUR 427.8 million (EUR 426.2 million) and unrealised losses

of EUR 6.9 million (EUR 6.7 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 55.1 million (EUR 79.4 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.

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 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.

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

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

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

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

N34

in EUR thousand	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
<b>Total financial assets</b>	<b>1,782,887</b>	<b>32,441,946</b>	<b>2,044,588</b>	<b>36,269,421</b>
Other liabilities	–	17,820	168,943	186,763
<b>Total financial liabilities</b>	<b>–</b>	<b>17,820</b>	<b>168,943</b>	<b>186,763</b>

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

N35

in EUR thousand	2015 <sup>1</sup>			
	Level 1	Level 2	Level 3	Total
Fixed-income securities	34,077	29,691,353	–	29,725,430
Equity securities	452,098	–	10	452,108
Other financial assets	–	39,602	–	39,602
Real estate and real estate funds	–	–	371,254	371,254
Other invested assets	–	–	1,475,415	1,475,415
Short-term investments	1,084,739	–	–	1,084,739
Other assets	–	1,999	–	1,999
<b>Total financial assets</b>	<b>1,570,914</b>	<b>29,732,954</b>	<b>1,846,679</b>	<b>33,150,547</b>
Other liabilities	–	13,860	156,144	170,004
<b>Total financial liabilities</b>	<b>–</b>	<b>13,860</b>	<b>156,144</b>	<b>170,004</b>

<sup>1</sup> Adjusted pursuant to IAS 8 (cf. section 3.1)

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

N 36

	2016				
	Fixed-income securities	Equities, equity funds and other variable-yield securities	Real estate and real estate funds	Other invested assets	Other liabilities
in EUR thousand					
<b>Net book value at 31 December of the previous year</b>	–	10	371,254	1,475,415	156,144
Currency translation at 1 January	–	–	5,686	32,916	5,733
<b>Net book value after currency translation</b>	–	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)
Settlements	–	–	–	–	–
Transfers to level 3	–	–	–	–	–
Transfers from level 3	–	–	–	–	–
Currency translation at 31 December of the year under review	–	–	(501)	7,391	311
<b>Net book value at 31 December of the year under review</b>	–	10	390,676	1,653,902	168,943

#### Movements in level 3 financial assets and liabilities

N 37

	2015				
	Fixed-income securities	Equities, equity funds and other variable-yield securities	Real estate and real estate funds	Other invested assets	Other liabilities
in EUR thousand					
<b>Net book value at 31 December of the previous year</b>	522	8	320,956	1,258,903	136,486
Currency translation at 1 January	59	2	17,605	88,473	15,339
<b>Net book value after currency translation</b>	581	10	338,561	1,347,376	151,825
Income and expenses					
recognised in the statement of income	–	–	(921)	(13,829)	(17,771)
recognised directly in shareholders' equity	–	–	(9,679)	(41,991)	–
Purchases	–	–	143,631	368,895	53,050
Sales	–	–	99,962	182,540	31,038
Settlements	567	–	–	–	–
Transfers to level 3	–	–	–	–	–
Transfers from level 3	–	–	–	–	–
Currency translation at 31 December of the year under review	(14)	–	(376)	(2,496)	78
<b>Net book value at 31 December of the year under review</b>	–	10	371,254	1,475,415	156,144

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	2016		
	Real estate and real estate funds	Other invested assets	Other liabilities
<b>Total in the financial year</b>			
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)	–
<b>Thereof attributable to financial instruments included in the portfolio at 31 December of the year under review</b>			
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)	–

#### Income and expenses from level 3 financial assets and liabilities

N 39

in EUR thousand	2015		
	Real estate and real estate funds	Other invested assets	Other liabilities
<b>Total in the financial year</b>			
Realised gains and losses on investments	(79)	(16,108)	–
Change in fair value of financial instruments	–	8,131	17,771
Total depreciation, impairments and appreciation of investments	(842)	(5,852)	–
<b>Thereof attributable to financial instruments included in the portfolio at 31 December of the year under review</b>			
Change in fair value of financial instruments	–	8,131	17,771
Total depreciation, impairments and appreciation of investments	(842)	(5,851)	–

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 2,044.6 million (EUR 1,846.7 million) as at the balance sheet date, Hannover Re measures financial assets with a volume of EUR 1,853.8 million (EUR 1,767.3 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 190.8 million (EUR 79.4 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

in EUR thousand	2016			
	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
<b>Total financial assets</b>	<b>–</b>	<b>3,378,882</b>	<b>1,691,454</b>	<b>5,070,336</b>
Long-term debt and subordinated capital	–	1,977,801	–	1,977,801
<b>Total financial liabilities</b>	<b>–</b>	<b>1,977,801</b>	<b>–</b>	<b>1,977,801</b>

## Fair value hierarchy of financial assets and liabilities measured at amortised cost

N 41

in EUR thousand	2015			
	Level 1	Level 2	Level 3	Total
Fixed-income securities	–	4,276,334	12,242	4,288,576
Real estate and real estate funds	–	–	1,388,656	1,388,656
Other invested assets	–	11,224	57,894	69,118
<b>Total financial assets</b>	<b>–</b>	<b>4,287,558</b>	<b>1,458,792</b>	<b>5,746,350</b>
Long-term debt and subordinated capital	–	1,969,384	–	1,969,384
<b>Total financial liabilities</b>	<b>–</b>	<b>1,969,384</b>	<b>–</b>	<b>1,969,384</b>

## 6.2 Funds withheld (assets)

The funds withheld totalling EUR 11,673.3 million (EUR 13,801.8 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 18.1 million in the year under review from EUR 188.6 million to EUR 170.5 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 198 et seq. as well as the remarks in the risk report on page 73 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	2016	2015
Net book value at 31 December of the previous year	2,094,671	1,914,598
Currency translation at 1 January	1,728	71,870
<b>Net book value after currency translation</b>	<b>2,096,399</b>	<b>1,986,468</b>
Changes in the consolidated group	1,327	–
Additions	614,050	600,389
Amortisations	525,581	498,666
Currency translation at 31 December	11,894	6,480
<b>Net book value at 31 December of the year under review</b>	<b>2,198,089</b>	<b>2,094,671</b>

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

in EUR thousand	2016		2015	
	Three months to one year	More than one year	Three months to one year	More than one year
Accounts receivable	218,703	117,141	236,444	140,600

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 90 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	2016	2015
Cumulative value adjustments at 31 December of the previous year	35,992	42,221
Currency translation at 1 January	(274)	(4,047)
<b>Cumulative value adjustments after currency translation</b>	<b>35,718</b>	<b>38,174</b>
Value adjustments	30,602	23,565
Reversal	15,533	10,892
Utilisation	10,319	14,855
<b>Cumulative value adjustments at 31 December of the year under review</b>	<b>40,468</b>	<b>35,992</b>
Gross book value of accounts receivable at 31 December of the year under review	3,718,498	3,701,929
Cumulative value adjustments at 31 December of the year under review	40,468	35,992
<b>Net book value of accounts receivable at 31 December of the year under review</b>	<b>3,678,030</b>	<b>3,665,937</b>

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 90 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	2016	2015
Net book value at 31 December of the previous year	60,244	58,220
Currency translation at 1 January	(1,200)	1
<b>Net book value after currency translation</b>	<b>59,044</b>	<b>58,221</b>
Additions	5,368	2,365
Currency translation at 31 December	197	(342)
<b>Net book value at 31 December of the year under review</b>	<b>64,609</b>	<b>60,244</b>

This item principally includes the goodwill from the acquisition of E+S Rückversicherung AG as well as from the acquisition of the shares of Integra Insurance Solutions Limited. Goodwill equivalent to altogether EUR 5.4 million was added in the context of the initial consolidation of Glencar Underwriting Managers, Inc.

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	6.000%	0.800%
Integra Insurance Solutions Limited	7.312%	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	2016	2015
Present value of future profits on acquired life reinsurance portfolios	76,592	78,261
Other intangible assets	52,088	47,777
Insurance for pension commitments	87,303	82,152
Own-use real estate	67,171	66,736
Tax refund claims	58,129	96,986
Fixtures, fittings and equipment	27,234	28,707
Other receivables	8,921	8,533
Other	296,951	271,391
<b>Total</b>	<b>674,389</b>	<b>680,543</b>

Of this, other assets of EUR 3.9 million (EUR 4.6 million) are attributable to affiliated companies.

The item “Other” includes receivables of EUR 209.0 million (EUR 194.7 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 items of EUR 0.2 million (previous year: none) that were overdue by between three and twelve months but unadjusted 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	2016	2015
Gross book value at 31 December of the previous year	131,701	131,102
Currency translation at 1 January	4,352	598
<b>Gross book value at 31 December of the year under review</b>	<b>136,053</b>	<b>131,700</b>
Cumulative depreciation at 31 December of the previous year	53,440	48,712
Currency translation at 1 January	1,478	598
<b>Cumulative depreciation after currency translation</b>	<b>54,918</b>	<b>49,310</b>
Amortisation	4,343	5,186
Currency translation at 31 December	200	(1,057)
<b>Cumulative depreciation at 31 December of the year under review</b>	<b>59,461</b>	<b>53,439</b>
<b>Net book value at 31 December of the previous year</b>	<b>78,261</b>	<b>82,390</b>
<b>Net book value at 31 December of the year under review</b>	<b>76,592</b>	<b>78,261</b>

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 87.3 million (EUR 82.2 million).

### Fixtures, fittings and equipment

Fixtures, fittings and equipment		N 49
in EUR thousand	2016	2015
Gross book value at 31 December of the previous year	147,459	143,788
Currency translation at 1 January	1,290	3,078
<b>Gross book value after currency translation</b>	<b>148,749</b>	<b>146,866</b>
Additions	9,288	7,352
Disposals	3,281	7,848
Reclassifications	–	993
Changes in consolidated group	794	196
Currency translation at 31 December	262	(100)
<b>Gross book value at 31 December of the year under review</b>	<b>155,812</b>	<b>147,459</b>
Cumulative depreciation at 31 December of the previous year	118,752	110,621
Currency translation at 1 January	1,067	2,740
<b>Cumulative depreciation after currency translation</b>	<b>119,819</b>	<b>113,361</b>
Disposals	2,552	7,349
Depreciation	10,812	12,225
Reclassifications	–	419
Changes in consolidated group	490	144
Currency translation at 31 December	9	(48)
<b>Cumulative depreciation at 31 December of the year under review</b>	<b>128,578</b>	<b>118,752</b>
<b>Net book value at 31 December of the previous year</b>	<b>28,707</b>	<b>33,167</b>
<b>Net book value at 31 December of the year under review</b>	<b>27,234</b>	<b>28,707</b>

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

N50

in EUR thousand	2016	2015
Gross book value at 31 December of the previous year	247,773	220,296
Currency translation at 1 January	283	221
<b>Gross book value after currency translation</b>	<b>248,056</b>	<b>220,517</b>
Changes in the consolidated group	202	6,131
Additions	17,727	22,773
Disposals	635	632
Currency translation at 31 December	(130)	(1,016)
<b>Gross book value at 31 December of the year under review</b>	<b>265,220</b>	<b>247,773</b>
Cumulative depreciation at 31 December of the previous year	199,996	182,834
Currency translation at 1 January	(355)	103
<b>Cumulative depreciation after currency translation</b>	<b>199,641</b>	<b>182,937</b>
Changes in the consolidated group	–	50
Disposals	555	174
Appreciation	5	17
Depreciation	13,924	17,466
Currency translation at 31 December	127	(266)
<b>Cumulative depreciation at 31 December of the year under review</b>	<b>213,132</b>	<b>199,996</b>
<b>Net book value at 31 December of the previous year</b>	<b>47,777</b>	<b>37,462</b>
<b>Net book value at 31 December of the year under review</b>	<b>52,088</b>	<b>47,777</b>

The item includes EUR 0.8 million (EUR 1.6 million) for self-created software and EUR 37.3 million (EUR 31.2 million) for purchased software as at the balance sheet date. Scheduled depreciation is taken over useful lives of three to ten years. The additions can be broken down into EUR 10.1 million (EUR 13.4 million) for purchased software and EUR 0.3 million (EUR 1.1 million) for capitalised development costs for self-created 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 90 et seq.

## 6.7 Technical provisions

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

### Technical provisions

N51

in EUR thousand	2016			2015		
	gross	retro	net	gross	retro	net
Loss and loss adjustment expense reserve	28,129,418	1,506,292	26,623,126	26,556,388	1,395,281	25,161,107
Benefit reserve	10,289,854	1,189,420	9,100,434	12,206,699	1,367,173	10,839,526
Unearned premium reserve	3,340,651	134,927	3,205,724	3,159,363	164,023	2,995,340
Other technical provisions	362,390	12,231	350,159	325,528	8,687	316,841
<b>Total</b>	<b>42,122,313</b>	<b>2,842,870</b>	<b>39,279,443</b>	<b>42,247,978</b>	<b>2,935,164</b>	<b>39,312,814</b>

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.

in EUR thousand	2016			2015		
	gross	retro	net	gross	retro	net
Net book value at 31 December of the previous year	26,556,388	1,395,281	25,161,107	24,112,056	1,376,432	22,735,624
Currency translation at 1 January	383,428	37,654	345,774	1,118,172	55,998	1,062,174
<b>Net book value after currency translation</b>	<b>26,939,816</b>	<b>1,432,935</b>	<b>25,506,881</b>	<b>25,230,228</b>	<b>1,432,430</b>	<b>23,797,798</b>
Incurring claims and claims expenses (net) <sup>1</sup>						
Year under review	8,791,598	615,771	8,175,827	8,906,387	865,140	8,041,247
Previous years	2,985,840	350,342	2,635,498	3,211,467	177,307	3,034,160
	<b>11,777,438</b>	<b>966,113</b>	<b>10,811,325</b>	<b>12,117,854</b>	<b>1,042,447</b>	<b>11,075,407</b>
Less:						
Claims and claims expenses paid (net)						
Year under review	(2,753,750)	(231,712)	(2,522,038)	(2,896,318)	(444,929)	(2,451,389)
Previous years	(7,826,003)	(659,985)	(7,166,018)	(8,013,708)	(619,536)	(7,394,172)
	<b>(10,579,753)</b>	<b>(891,697)</b>	<b>(9,688,056)</b>	<b>(10,910,026)</b>	<b>(1,064,465)</b>	<b>(9,845,561)</b>
Changes in the consolidated group	4,179	2,613	1,566	–	–	–
Specific value adjustment for retrocessions	–	1,250	(1,250)	–	3	(3)
Reversal of impairments	–	3	(3)	–	29	(29)
Portfolio entries/exits	–	–	–	–	176	(176)
Currency translation at 31 December	(12,262)	(2,425)	(9,837)	118,332	(15,333)	133,665
<b>Net book value at 31 December of the year under review</b>	<b>28,129,418</b>	<b>1,506,292</b>	<b>26,623,126</b>	<b>26,556,388</b>	<b>1,395,281</b>	<b>25,161,107</b>

<sup>1</sup> Including expenses recognised directly in shareholders' equity

In the year under review, as in the previous year, minimal specific value adjustments were established and reversed on retrocessions, i.e. on the reinsurance recoverables on unpaid claims. On balance, therefore, cumulative specific value adjustments of EUR 1.4 million (EUR 0.1 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 26,621.7 million (EUR 25,161.0 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.

triangle). The figures reported for the 2006 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 2016 financial year for the individual run-off years.

The following table shows the net loss reserve for the property and casualty reinsurance business group in the years 2006 to 2016 as well as the run-off of the reserve (so-called run-off

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

N53

in EUR million	31.12. 2006	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
Loss and loss adjustment expense reserve (from balance sheet)											
	13,646.5	13,017.0	13,882.1	14,179.4	15,465.5	16,823.2	17,439.3	18,029.3	19,859.1	21,851.1	22,759.8
Cumulative payments for the year in question and previous years											
One year later	2,643.2	2,569.4	3,041.8	2,832.7	2,521.3	3,220.0	2,999.0	3,265.1	3,587.9	3,353.0	
Two years later	4,446.5	4,427.5	4,721.7	4,086.3	4,202.5	5,002.4	4,654.5	5,096.2	5,364.9		
Three years later	5,826.6	5,576.2	5,494.2	4,923.5	5,220.5	5,954.9	5,872.9	6,233.0			
Four years later	6,654.7	6,133.3	6,092.3	5,584.1	5,881.8	6,908.0	6,736.1				
Five years later	7,056.1	6,574.5	6,581.8	6,095.8	6,655.3	7,636.4					
Six years later	7,400.7	6,942.7	6,915.5	6,604.3	7,208.4						
Seven years later	7,677.4	7,222.7	7,264.6	6,957.0							
Eight years later	7,906.7	7,515.6	7,530.0								
Nine years later	8,143.5	7,729.0									
Ten years later	8,308.8										
Loss and loss adjustment expense reserve (net) for the year in question and previous years plus payments made to date on the original reserve											
<b>End of year</b>	<b>13,646.5</b>	<b>13,017.0</b>	<b>13,882.1</b>	<b>14,179.4</b>	<b>15,465.5</b>	<b>16,823.2</b>	<b>17,439.3</b>	<b>18,029.3</b>	<b>19,859.1</b>	<b>21,851.1</b>	<b>22,759.8</b>
One year later	12,911.4	13,307.8	14,977.3	13,643.3	14,773.9	16,519.8	16,984.2	17,769.4	19,341.7	21,046.1	
Two years later	12,494.1	13,239.1	13,690.3	12,832.4	14,136.6	16,143.6	16,570.7	17,127.7	18,296.8		
Three years later	12,419.9	12,747.0	12,763.5	12,234.1	13,717.1	15,650.3	16,057.3	16,125.7			
Four years later	11,988.9	11,828.6	12,255.1	11,813.6	13,234.1	15,029.7	15,331.6				
Five years later	11,145.6	11,472.8	11,917.2	11,336.3	12,667.6	14,321.8					
Six years later	10,870.7	11,167.3	11,407.9	10,805.5	12,094.4						
Seven years later	10,592.8	10,755.0	10,918.3	10,385.4							
Eight years later	10,272.6	10,335.9	10,540.5								
Nine years later	9,857.3	10,058.7									
Ten years later	9,656.1										
Change relative to previous year											
Net run-off result	201.2	76.1	100.6	42.3	153.0	134.8	17.7	276.3	43.0	(240.9)	
As percentage of original loss reserve	1.5	0.6	0.7	0.3	1.0	0.8	0.1	1.5	0.2	-1.1	

The run-off profit of altogether EUR 804.1 million in the 2016 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 marine/aviation, motor third party liability.

## 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

in EUR thousand	2016					
	Loss and loss adjustment expense reserves			Benefit reserve		
	gross	retro	net	gross	retro	net
Due in one year	7,632,814	358,009	7,274,805	612,059	137,894	474,165
Due after one through five years	10,812,304	661,217	10,151,087	1,941,731	853,841	1,087,890
Due after five through ten years	4,160,760	224,772	3,935,988	1,061,394	71,956	989,438
Due after ten through twenty years	2,726,059	128,750	2,597,309	506,519	4,983	501,536
Due after twenty years	1,240,032	59,955	1,180,077	1,197,415	117,231	1,080,184
	<b>26,571,969</b>	<b>1,432,703</b>	<b>25,139,266</b>	<b>5,319,118</b>	<b>1,185,905</b>	<b>4,133,213</b>
Deposits	1,557,449	74,983	1,482,466	4,970,736	3,515	4,967,221
<b>Total</b>	<b>28,129,418</b>	<b>1,507,686</b>	<b>26,621,732</b>	<b>10,289,854</b>	<b>1,189,420</b>	<b>9,100,434</b>

### Maturities of the technical reserves

N55

in EUR thousand	2015					
	Loss and loss adjustment expense reserves			Benefit reserve		
	gross	retro	net	gross	retro	net
Due in one year	7,307,701	391,609	6,916,092	889,225	448,136	441,089
Due after one through five years	10,514,893	561,676	9,953,217	2,074,902	790,242	1,284,660
Due after five through ten years	3,869,011	187,607	3,681,404	1,074,674	69,053	1,005,621
Due after ten through twenty years	2,527,158	112,346	2,414,812	722,625	34,890	687,735
Due after twenty years	1,182,110	55,298	1,126,812	1,076,414	20,569	1,055,845
	<b>25,400,873</b>	<b>1,308,536</b>	<b>24,092,337</b>	<b>5,837,840</b>	<b>1,362,890</b>	<b>4,474,950</b>
Deposits	1,155,515	86,891	1,068,624	6,368,859	4,283	6,364,576
<b>Total</b>	<b>26,556,388</b>	<b>1,395,427</b>	<b>25,160,961</b>	<b>12,206,699</b>	<b>1,367,173</b>	<b>10,839,526</b>



The average maturity of the loss and loss adjustment expense reserves was 5.1 years (5.0 years), or 5.1 years (5.0 years) after allowance for the corresponding retrocession shares. The benefit reserve had an average maturity of 10.7 years (9.9 years) – or 12.1 years (11.8 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

in EUR thousand	2016			2015		
	gross	retro	net	gross	retro	net
Net book value at 31 December of the previous year	12,206,699	1,367,173	10,839,526	11,757,132	676,219	11,080,913
Currency translation at 1 January	(615,388)	4,822	(620,210)	716,643	48,141	668,502
<b>Net book value after currency translation</b>	<b>11,591,311</b>	<b>1,371,995</b>	<b>10,219,316</b>	<b>12,473,775</b>	<b>724,360</b>	<b>11,749,415</b>
Changes	197,019	116,507	80,512	502,461	401,304	101,157
Portfolio entries/exits	(1,529,022)	(327,771)	(1,201,251)	(813,517)	245,745	(1,059,262)
Currency translation at 31 December	30,546	28,689	1,857	43,980	(4,236)	48,216
<b>Net book value at 31 December of the year under review</b>	<b>10,289,854</b>	<b>1,189,420</b>	<b>9,100,434</b>	<b>12,206,699</b>	<b>1,367,173</b>	<b>10,839,526</b>

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.

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.

in EUR thousand	2016			2015		
	gross	retro	net	gross	retro	net
Net book value at 31 December of the previous year	3,159,363	164,023	2,995,340	2,748,594	149,257	2,599,337
Currency translation at 1 January	25,681	5,658	20,023	114,612	6,266	108,346
<b>Net book value after currency translation</b>	<b>3,185,044</b>	<b>169,681</b>	<b>3,015,363</b>	<b>2,863,206</b>	<b>155,523</b>	<b>2,707,683</b>
Changes in the consolidated group	4,694	3,167	1,527	–	–	–
Changes	156,575	(29,808)	186,383	259,834	3,307	256,527
Portfolio entries/exits	(9,917)	(5,919)	(3,998)	–	–	–
Currency translation at 31 December	4,255	(2,194)	6,449	36,323	5,193	31,130
<b>Net book value at 31 December of the year under review</b>	<b>3,340,651</b>	<b>134,927</b>	<b>3,205,724</b>	<b>3,159,363</b>	<b>164,023</b>	<b>2,995,340</b>

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 1,234.1 million (EUR 1,265.0 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 384.2 million in the year under review from EUR 4,682.5 million to EUR 4,298.3 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 pension plans are unfunded. 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

in %	2016			2015	
	Germany	Australia	United Kingdom	Germany	Australia
Discount rate	1.65	3.62	2.70	2.36	3.60
Rate of compensation increase	1.59	3.00	2.35	2.50	3.50
Pension indexation	2.17	3.00	2.15	1.86	3.00

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

#### Movements in net liability from defined benefit pension plans

N59

	2016	2015	2016	2015	2016	2015
	Defined benefit obligation		Fair value of plan assets		Impact of minimum funding requirement/asset ceiling	
in EUR thousand						
Position at 1 January of the financial year	154,832	187,034	4,533	15,533	–	–
<b>Recognised in profit or loss</b>						
Current service costs	3,169	4,274	–	–	–	–
Past service cost and plan curtailments	–	1,285	–	–	–	–
Net interest component	3,459	2,636	133	37	–	–
	<b>6,628</b>	<b>8,195</b>	<b>133</b>	<b>37</b>	<b>–</b>	<b>–</b>
<b>Recognised in cumulative other comprehensive income</b>						
Actuarial gain (–)/loss (+) from change in biometric assumptions	–	–	–	–	–	–
Actuarial gain (–)/loss (+) from change in financial assumptions	21,998	(17,840)	–	–	–	–
Experience gains (–)/losses (+)	17,755	(1,034)	–	–	–	–
Return on plan assets, excluding amounts included in interest income	–	–	11,904	123	–	–
Change in asset ceiling	–	–	–	–	40	–
Exchange differences	(431)	47	(403)	14	–	–
	<b>39,322</b>	<b>(18,827)</b>	<b>11,501</b>	<b>137</b>	<b>40</b>	<b>–</b>
<b>Other changes</b>						
Employer contributions	–	–	123	5,084	–	–
Employee contributions and deferred compensation	27	–	382	–	–	–
Benefit payments	(4,701)	(20,191)	(2)	(16,247)	–	–
Additions and disposals	11,605	(1,155)	10,311	(225)	–	–
Effects of plan settlements	(92)	(224)	–	214	–	–
	<b>6,839</b>	<b>(21,570)</b>	<b>10,814</b>	<b>(11,174)</b>	<b>–</b>	<b>–</b>
<b>Position at 31 December of the financial year</b>	<b>207,621</b>	<b>154,832</b>	<b>26,981</b>	<b>4,533</b>	<b>40</b>	<b>–</b>

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 decrease in the discount rate compared to the previous year.

As a consequence of developments on the capital markets, funding of the minimum adjustment to current benefits from the surplus participation can no longer be anticipated. From a longer-term perspective, a required excess interest share of at

least 1% p. a. can no longer be assumed. For this reason, certain pension commitments given through provident funds were actuarially measured for the first time in the year under review in accordance with the requirements for defined benefit plans. The modified measurement of these pension commitments is reflected in the rise in experience losses to EUR 17.8 million (experience gain of EUR 1.0 million). This reclassification further gives rise to an increase in the return on plan assets to EUR 11.9 million (EUR 0.1 million).

The additions shown under the “Other changes” reflect the acquisition of CGI in the 2016 financial 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	2016	2015
Projected benefit obligations at 31 December of the financial year	207,621	154,832
Fair value of plan assets at 31 December of the financial year	26,981	4,533
Effect of minimum funding requirement on asset ceiling	40	–
<b>Recognised pension obligations at 31 December of the financial year</b>	<b>180,680</b>	<b>150,299</b>
Provisions for pensions	180,680	150,299

In the current financial year Hannover Re anticipates contribution payments of EUR 2.4 million under the plans set out above. The weighted average duration of the defined benefit obligation is 17.9 (17.5) 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%)	-15,848	20,409
Rate of compensation increase	(+/- 0.25%)	1,034	-1,013
Pension indexation	(+/- 0.25%)	6,106	-5,818

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 6.9 million (EUR 5.0 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 17.9 million (EUR 20.0 million), of which EUR 7.2 million (EUR 6.6 million) was attributable to the most significant defined contribution commitment, the contribution to the statutory pension insurance scheme in Germany. The other amounts recognised here result from defined contribution plans of the Group companies abroad. The 2000 pension plan, which had

also been recognised in the previous years as a defined contribution plan, was for the first time in its entirety no longer estimated as a defined contribution plan as at the balance sheet date, but rather it was measured as a defined benefit plan.

## 6.11 Other liabilities

### Other liabilities

N62

in EUR thousand	2016	2015
Liabilities from derivatives	186,763	170,004
Interest	31,387	30,908
Deferred income	32,579	28,819
Direct minority interests in partnerships	6,475	25,155
Sundry non-technical provisions	199,626	191,711
Sundry liabilities	223,566	252,336
<b>Total</b>	<b>680,396</b>	<b>698,933</b>

Of this, other liabilities of EUR 7.6 million (EUR 10.4 million) are attributable to affiliated companies.

With regard to the liabilities from derivatives in an amount of EUR 186.8 million (EUR 170.0 million), please see our explanatory remarks on derivative financial instruments in Section 8.1 “Derivative financial instruments and financial guarantees”.

The sundry liabilities include, most notably, distributions within the year of EUR 76.9 million (EUR 84.6 million) from interests in private equity funds that had still to be recognised in income as at the balance sheet date.

## Development of sundry non-technical provisions

N 63

in EUR thousand	Balance at 31 December 2015	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	7,092	41	7,133
Consultancy fees	1,805	16	1,821
Suppliers' invoices	11,040	121	11,161
Partial retirement arrangements and early retirement obligations	2,518	(7)	2,511
Holiday entitlements and overtime	9,233	111	9,344
Anniversary bonuses	3,664	24	3,688
Management bonuses	36,886	594	37,480
Other	119,473	720	120,193
<b>Total</b>	<b>191,711</b>	<b>1,620</b>	<b>193,331</b>

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

## Maturities of the sundry non-technical provisions

N 64

in EUR thousand	2016	2015
Due in one year	98,652	86,075
Due after one through five years	94,488	101,640
Due after five years	6,486	3,996
<b>Total</b>	<b>199,626</b>	<b>191,711</b>

## 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.



Changes in consolidated group	Additions	Utilisation	Release	Currency translation at 31 December	Balance at 31 December 2016
(1)	6,974	6,515	55	38	7,574
–	2,380	1,783	170	(3)	2,245
(4)	9,574	15,715	521	(14)	4,481
–	(245)	333	–	–	1,933
–	5,836	5,253	–	(3)	9,924
–	747	27	–	10	4,418
128	29,884	23,985	438	90	43,159
45	43,210	27,067	10,640	151	125,892
<b>168</b>	<b>98,360</b>	<b>80,678</b>	<b>11,824</b>	<b>269</b>	<b>199,626</b>

Altogether three (three) subordinated bonds were recognised as at the balance sheet date with an amortised cost of EUR 1,490.8 million (EUR 1,489.9 million).

#### Debt and subordinated capital

N65

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
				<b>1,490,841</b>	<b>170,404</b>	<b>29,802</b>	<b>1,691,047</b>
Debt				313,377	3,179	1,218	317,774
<b>Total</b>				<b>1,804,218</b>	<b>173,583</b>	<b>31,020</b>	<b>2,008,821</b>

## Debt and subordinated capital

N 66

in EUR thousand				2015			
Subordinated loans	Coupon	Maturity	Currency	Amortised cost	Fair value measurement	Accrued interest	Fair value
Hannover Rück SE, 2014	3.375	n/a	EUR	493,950	4,025	8,668	506,643
Hannover Finance (Luxembourg) S.A., 2012	5.00	2043	EUR	497,246	82,054	12,568	591,868
Hannover Finance (Luxembourg) S.A., 2010	5.75	2040	EUR	498,657	78,838	8,484	585,979
				<b>1,489,853</b>	<b>164,917</b>	<b>29,720</b>	<b>1,684,490</b>
Debt				308,483	6,130	1,188	315,801
Other long-term liabilities				1	–	–	1
<b>Total</b>				<b>1,798,337</b>	<b>171,047</b>	<b>30,908</b>	<b>2,000,292</b>

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

2016							
in EUR thousand	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 <sup>1</sup>	65,972	219,933	985	–	–	643	–
Debt	40,165	63,754	185,234	24,224	–	–	–
Subordinated loans	–	–	–	–	–	996,370	494,471
<b>Total</b>	<b>106,137</b>	<b>283,687</b>	<b>186,219</b>	<b>24,224</b>	<b>–</b>	<b>997,013</b>	<b>494,471</b>

<sup>1</sup> 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

N68

in EUR thousand	2015						
	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 <sup>1</sup>	55,112	256,058	893	–	–	–	–
Debt	–	39,047	246,117	23,319	–	–	–
Subordinated loans	–	–	–	–	–	995,903	493,950
Other long-term liabilities	–	1	–	–	–	–	–
<b>Total</b>	<b>55,112</b>	<b>295,106</b>	<b>247,010</b>	<b>23,319</b>	<b>–</b>	<b>995,903</b>	<b>493,950</b>

<sup>1</sup> 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

N69

in EUR thousand	2016	2015	2016	2015	2016	2015
	Ordinary income/expenses		Amortisation		Net result	
Debt	(11,967)	(11,862)	780	732	(11,187)	(11,130)
Subordinated loans	(70,706)	(80,954)	(987)	(3,362)	(71,693)	(84,316)
<b>Total</b>	<b>(82,673)</b>	<b>(92,816)</b>	<b>(207)</b>	<b>(2,630)</b>	<b>(82,880)</b>	<b>(95,446)</b>

The ordinary expenses principally include interest expenses of nominally EUR 70.7 million (EUR 81.0 million) resulting from the issued subordinated debt.

## 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.

### 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 16,413 (12,922) treasury shares during the second quarter of 2016 and delivered them to eligible employees at preferential conditions. These shares are blocked until 31 May 2020. This transaction

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 2016 that a gross dividend of EUR 4.75 per share should be paid for the 2015 financial year. This corresponds to a total distribution of EUR 572.8 million (EUR 512.5 million). The distribution consists of a dividend of EUR 3.25 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 10.1 million (decrease recognised in equity of EUR 11.9 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 56 et seq. 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 73 et seq.

resulted in an expense of EUR 0.4 million (EUR 0.3 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 743.3 million (EUR 709.1 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 55.2 million (EUR 64.0 million) in the year under review.

### Subsidiaries with material non-controlling interests

N 70

in EUR thousand	2016	2015
	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	133,367	147,794
thereof attributable to non-controlling interests	46,956	52,036
Income/expense recognised directly in equity	60,473	(41,416)
Total recognised income and expense	193,840	106,378
Shareholders' equity	1,978,546	1,894,706
thereof attributable to non-controlling interests	696,615	667,096
Dividends paid	110,000	120,000
thereof attributable to non-controlling interests	38,729	42,250
Assets	10,627,940	11,321,496
Liabilities	8,649,394	9,426,790
Cash flow from operating activities	293,299	358,705
Cash flow from investing activities	(187,314)	(239,012)
Cash flow from financing activities	(110,000)	(124,365)

## 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		N71
in EUR thousand	2016	2015
<b>Regional origin</b>		
Germany	1,241,991	1,368,419
United Kingdom	2,532,399	2,759,809
France	682,894	701,380
Other	1,880,892	1,776,980
<b>Europe</b>	<b>6,338,176</b>	<b>6,606,588</b>
USA	4,566,467	4,318,201
Other	766,434	771,729
<b>North America</b>	<b>5,332,901</b>	<b>5,089,930</b>
Asia	2,416,250	2,950,202
Australia	913,780	1,008,059
<b>Australasia</b>	<b>3,330,030</b>	<b>3,958,261</b>
Africa	454,514	503,754
Other	898,001	910,130
<b>Total</b>	<b>16,353,622</b>	<b>17,068,663</b>

## 7.2 Investment income

### Investment income

N72

in EUR thousand	2016	2015
Income from real estate	142,956	140,994
Dividends	27,481	6,928
Interest income	943,682	993,218
Other investment income	47,857	112,303
<b>Ordinary investment income</b>	<b>1,161,976</b>	<b>1,253,443</b>
Profit or loss on shares in associated companies	9,101	19,169
Appreciation	294	616
Realised gains on investments	294,017	234,465
Realised losses on investments	87,721	98,618
Change in fair value of financial instruments	26,066	901
Impairments on real estate	31,966	28,212
Impairments on equity securities	30,141	1,889
Impairments on fixed-income securities	689	2,762
Impairments on participating interests and other financial assets	13,526	5,851
Other investment expenses	109,140	101,202
<b>Net income from assets under own management</b>	<b>1,218,271</b>	<b>1,270,060</b>
Interest income on funds withheld and contract deposits	453,643	462,898
Interest expense on funds withheld and contract deposits	121,494	67,865
<b>Total investment income</b>	<b>1,550,420</b>	<b>1,665,093</b>

The impairments totalling EUR 47.4 million (EUR 15.0 million) were attributable in an amount of EUR 30.1 million (EUR 1.9 million) 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. Impairments of EUR 11.7 million (EUR 5.9 million) were taken on alternative investments, thereof EUR 11.4 million (EUR 5.9 million) on private equity. An impairment loss of just EUR 0.7 million (EUR 2.8 million) was taken in the area of

fixed-income securities. In the real estate sector EUR 3.1 million (EUR 4.5 million) of the investments were recognised as impaired.

These write-downs contrasted with write-ups of EUR 0.3 million (EUR 0.6 million) made on investment property that had been written down in previous periods. 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

N73

in EUR thousand	2016	2015
Fixed-income securities – held to maturity	25,280	61,439
Fixed-income securities – loans and receivables	96,696	106,911
Fixed-income securities – available for sale	798,618	802,858
Financial assets – at fair value through profit or loss	3,188	3,215
Other	19,900	18,795
<b>Total</b>	<b>943,682</b>	<b>993,218</b>

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 109.1 million (EUR 101.2 million), net income from assets under own management of altogether EUR 1,218.3 million (EUR 1,270.1 million) was recognised in the year under review.

#### Net gains and losses on investments

N 74

in EUR thousand	2016				
	Ordinary investment income <sup>1</sup>	Realised gains and losses	Impairments/appreciation	Change in fair value	Net income from assets under own management <sup>2</sup>
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
<b>Total</b>	<b>1,171,077</b>	<b>206,296</b>	<b>76,028</b>	<b>26,066</b>	<b>1,327,411</b>

<sup>1</sup> Including income from associated companies, for reconciliation with the consolidated statement of income

<sup>2</sup> Excluding other investment expenses

#### Net gains and losses on investments

N 75

in EUR thousand	2015				
	Ordinary investment income <sup>1</sup>	Realised gains and losses	Impairments/appreciation	Change in fair value	Net income from assets under own management <sup>2</sup>
Held to maturity					
Fixed-income securities	61,646	981	2,365	–	60,262
Loans and receivables					
Fixed-income securities	103,734	3,975	–	–	107,709
Available for sale					
Fixed-income securities	733,577	170,517	397	–	903,697
Equity securities	2,117	114	1,889	–	342
Other invested assets	192,983	646	6,694	–	186,935
Short-term investments	18,659	72	–	–	18,731
At fair value through profit or loss					
Fixed-income securities	3,215	110	–	(260)	3,065
Other financial assets	1,099	(5,684)	–	(25,823)	(30,408)
Other invested assets	–	(23,525)	–	9,468	(14,057)
Other	155,582	(11,359)	26,753	17,516	134,986
<b>Total</b>	<b>1,272,612</b>	<b>135,847</b>	<b>38,098</b>	<b>901</b>	<b>1,371,262</b>

<sup>1</sup> Including income from associated companies, for reconciliation with the consolidated statement of income

<sup>2</sup> Excluding other investment expenses



## 7.3 Reinsurance result

### Reinsurance result

N 76

in EUR thousand	2016	2015
Gross written premium	16,353,622	17,068,663
Ceded written premium	1,749,624	2,219,094
Change in unearned premium	(156,575)	(259,834)
Change in ceded unearned premium	(29,808)	3,307
<b>Net premium earned</b>	<b>14,417,615</b>	<b>14,593,042</b>
Other technical income	470	1,290
<b>Total net technical income</b>	<b>14,418,085</b>	<b>14,594,332</b>
Claims and claims expenses paid	9,688,056	9,845,561
Change in loss and loss adjustment expense reserve	1,123,269	1,229,846
<b>Claims and claims expenses</b>	<b>10,811,325</b>	<b>11,075,407</b>
Change in benefit reserve	80,512	101,157
<b>Net change in benefit reserve</b>	<b>80,512</b>	<b>101,157</b>
Commissions	3,057,375	3,025,208
Change in deferred acquisition costs	89,150	97,673
Change in provision for contingent commissions	20,254	(9,106)
Other acquisition costs	16,292	5,652
Other technical expenses	3,997	1,348
Administrative expenses	401,545	398,512
<b>Net technical result</b>	<b>115,935</b>	<b>93,827</b>

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 2.8% (2.7%) of net premium earned.

### Other technical income

N 77

in EUR thousand	2016	2015
Other technical income (gross)	4,110	4,074
Reinsurance recoverables	3,640	2,784
<b>Other technical income (net)</b>	<b>470</b>	<b>1,290</b>

**Commissions and brokerage, change in deferred acquisition costs****N 78**

in EUR thousand	2016	2015
Commissions paid (gross)	3,240,829	3,313,301
Reinsurance recoverables	183,454	288,093
Change in deferred acquisition costs (gross)	7,927	119,918
Reinsurance recoverables	(81,223)	22,245
Change in provision for contingent commissions (gross)	23,661	(5,643)
Reinsurance recoverables	3,407	3,463
<b>Commissions and brokerage, change in deferred acquisition costs (net)</b>	<b>2,988,479</b>	<b>2,918,429</b>

**Other technical expenses****N 79**

in EUR thousand	2016	2015
Other technical expenses (gross)	5,434	2,180
Reinsurance recoverables	1,437	832
<b>Other technical expenses (net)</b>	<b>3,997</b>	<b>1,348</b>

**7.4 Other income and expenses****Other income/expenses****N 80**

in EUR thousand	2016	2015
<b>Other income</b>		
Exchange gains	496,755	374,351
Reversals of impairments on receivables	15,536	10,920
Income from contracts recognised in accordance with the deposit accounting method	105,858	98,377
Income from services	26,338	2,156
Deconsolidation	2,265	412
Other interest income	30,120	43,810
Sundry income	42,242	28,033
	<b>719,114</b>	<b>558,059</b>
<b>Other expenses</b>		
Other interest expenses	26,630	80,258
Exchange losses	457,884	289,467
Expenses from contracts recognised in accordance with the deposit accounting method	35,246	35,718
Separate value adjustments on receivables	31,885	23,570
Expenses for the company as a whole	64,814	57,986
Depreciation, amortisation, impairments	12,182	14,060
Expenses for services	27,593	7,961
Sundry expenses	39,887	52,723
	<b>696,121</b>	<b>561,743</b>
<b>Total</b>	<b>22,993</b>	<b>(3,684)</b>

The separate value adjustments were attributable to accounts receivable in an amount of EUR 30.6 million (EUR 23.6 million).

## 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.

Effective 1 January 2016 the raising of the trade tax multiplier for the City of Hannover from 460.0% to 480.0% was approved.

A tax rate of 32.63% (rounded to 32.7%; previous year: 31.93%, rounded to 32.0%) was therefore used to calculate the deferred taxes of the major domestic companies. It is

arrived at from the unchanged corporate income tax rate of 15.0%, the unchanged German solidarity surcharge of 5.5% and a trade earnings tax rate of 16.8% (16.1%). The Group tax rate showed a corresponding increase to 32.7% (32.0%). 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 81
in EUR thousand	2016	2015
Actual tax for the year under review	460,017	261,328
Actual tax for other periods	20,425	16,620
Deferred taxes due to temporary differences	(76,024)	186,579
Deferred taxes from loss carry-forwards	7,482	(24,905)
Change in deferred taxes due to changes in tax rates	(2,676)	21,548
Value adjustments on deferred taxes	(17,995)	(4,963)
<b>Total</b>	<b>391,229</b>	<b>456,207</b>

Domestic/foreign breakdown of recognised tax expenditure/income		N 82
in EUR thousand	2016	2015
<b>Current taxes</b>		
Germany	413,063	195,884
Abroad	67,379	82,064
<b>Deferred taxes</b>		
Germany	(97,845)	186,898
Abroad	8,632	(8,639)
<b>Total</b>	<b>391,229</b>	<b>456,207</b>

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

N83

in EUR thousand	2016	2015 <sup>1</sup>
<b>Deferred tax assets</b>		
Tax loss carry-forwards	105,940	118,379
Loss and loss adjustment expense reserves	325,929	229,865
Benefit reserve	135,794	156,980
Other technical/non-technical provisions	71,228	55,897
Funds withheld	21,060	22,780
Deferred acquisition costs	44,434	41,907
Accounts receivable/reinsurance payable	45,183	13,989
Valuation differences relating to investments	36,748	6,787
Contract deposits	3,196	–
Other valuation differences	46,841	41,680
Value adjustments <sup>2</sup>	(27,527)	(45,352)
<b>Total</b>	<b>808,826</b>	<b>642,912</b>
<b>Deferred tax liabilities</b>		
Loss and loss adjustment expense reserves	215,852	55,223
Benefit reserve	149,531	124,232
Other technical/non-technical provisions	108,894	98,954
Equalisation reserve	1,119,135	1,214,395
Funds withheld	15,850	18,551
Deferred acquisition costs	186,623	205,227
Accounts receivable/reinsurance payable	71,446	63,613
Valuation differences relating to investments	255,699	239,012
Contract deposits	76,859	–
Present value of future profits on acquired life reinsurance portfolios (PVFP)	9,574	9,783
Other valuation differences	34,044	113,144
<b>Total</b>	<b>2,243,507</b>	<b>2,142,134</b>
Deferred tax liabilities	1,434,681	1,499,222

<sup>1</sup> For the year under review expanded netting opportunities arose in the calculation of deferred taxes. The previous year's figures were restated accordingly for the sake of comparability. There are no implications for recognition in the balance sheet.

<sup>2</sup> Thereof on tax loss carry-forwards: -EUR 26,880 thousand (-EUR 44,737 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

N84

in EUR thousand	2016	2015
Deferred tax assets	408,292	433,500
Deferred tax liabilities	1,842,973	1,932,722
<b>Net deferred tax liabilities</b>	<b>1,434,681</b>	<b>1,499,222</b>

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 4.8 million (EUR 142.8 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

N85

in EUR thousand	2016	2015
Profit before taxes on income	1,617,655	1,670,920
Group tax rate	32.7%	32.0%
Expected expense for income taxes	528,973	534,694
Change in tax rates	(2,677)	21,548
Differences in tax rates affecting subsidiaries	(112,973)	(120,541)
Non-deductible expenses	44,122	66,902
Tax-exempt income	(41,654)	(39,216)
Tax expense/income not attributable to the reporting period	30,435	16,117
Value adjustments on deferred taxes/loss carry-forwards	(17,995)	(4,963)
Trade tax modifications	(39,645)	(24,597)
Other	2,644	6,263
<b>Actual expense for income taxes</b>	<b>391,229</b>	<b>456,207</b>

The expense for income taxes in the financial year was EUR 65.0 million lower than in the previous year at EUR 391.2 million (EUR 456.2 million).

The effective tax rate amounted to 24.2% (27.3%).

#### Availability of non-capitalised loss carry-forwards

Unused tax loss carry-forwards and tax credits of EUR 459.4 million (EUR 455.4 million) existed as at the balance sheet date. Making allowance for local tax rates, EUR 109.7 million (EUR 164.4 million) thereof was not capitalised since realisation is not sufficiently certain.

No deferred taxes were established on liabilities-side taxable temporary differences amounting to EUR 40.2 million (EUR 57.5 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

N86

in EUR thousand	One to five years	Six to ten years	More than ten years	Unlimited	Total
Temporary differences	–	–	–	3,804	3,804
Loss carry-forwards	–	–	–	105,876	105,876
<b>Total</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>109,680</b>	<b>109,680</b>

## 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 2.5 million (EUR 3.6 million) and other financial assets at fair value through profit or loss in an amount of EUR 0.2 million (EUR 0.1 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 10.0 million (EUR 3.1 million) and other financial assets at fair value through profit or loss in an amount of EUR 16.8 million (EUR 15.0 million). The reduction in equity from hedging instruments recognised directly in equity pursuant to IAS 39 in an amount 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 2.3 million. Ineffective components of the hedge were recognised in profit or loss under other investment expenses in an amount 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 (EUR 2.0 million) as at the balance sheet date and was 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 0.9 million (increase in equity recognised directly in equity of EUR 5.9 million); ineffective components of the hedge were recognised in a minimal amount under other investment expenses and income of EUR 1.1 million was realised through profit or loss.

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

A87

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

## Maturity structure of derivative financial instruments

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in EUR thousand	2015			31.12.2015
	Less than one year	One to five years	Five to ten years	
<b>Interest rate hedges</b>				
Fair values	(709)	(2,776)	–	(3,485)
Notional values	83,781	119,813	–	203,594
<b>Currency hedges</b>				
Fair values	8,891	2,403	561	11,855
Notional values	655,412	33,122	6,396	694,930
<b>Share price hedges</b>				
Fair values	1,999	–	–	1,999
Notional values	25,486	–	–	25,486
<b>Total hedging instruments</b>				
Fair values	10,181	(373)	561	10,369
Notional values	764,679	152,935	6,396	924,010

The net changes in the fair value of these instruments resulted in a charge of EUR 6.6 million to the result of the financial year (improvement in the result of EUR 4.0 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.

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

	2015				Net amount
	Fair value	Netting agreement	Cash collateral received / furnished	Other collateral received / furnished	
in EUR thousand					
Derivative receivables	17,881	1,678	5,081	1,802	9,320
Derivative liabilities	3,146	1,678	–	–	1,468

### Derivative financial instruments in connection with reinsurance

A number of treaties in life and health reinsurance meet criteria which require application of the prescriptions 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 24.6 million (EUR 23.2 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 0.5 million before tax (expense of EUR 26.1 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 4.1 million (other liabilities of EUR 3.5 million). The performance of this derivative improved the result by EUR 7.5 million in the financial year (charge to the result of EUR 3.6 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 168.9 million (EUR 156.1 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 22.6 million (EUR 17.8 million) in investment income in the financial year.

A retrocession agreement was concluded in the financial year in the area of life and health reinsurance, under which the premiums are deposited with Hannover Re and invested in a structured bond, the fair value of which has been guaranteed by the retrocessionaire. 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 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 income of EUR 10.1 million. Conversely, the performance of the structured bond, which is also measured at fair value, gave rise to a charge in the same amount.

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 40.6 million

### 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 3,674.6 million (EUR 3,544.4 million); an amount equivalent to EUR 2,745.8 million (EUR 2,483.4 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

(EUR 24.5 million) as well as recognition of liabilities in an amount of EUR 174.3 million (EUR 163.3 million) from the derivatives resulting from technical items as at the balance sheet date. Improvements in investment income amounting to EUR 40.9 million (EUR 18.5 million) as well as charges to income of EUR 1.8 million (EUR 29.7 million) were recognised in the year under review from all separately measured derivatives in connection with the technical account.

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

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in EUR thousand	2016		2015	
	Premium	Underwriting result	Premium	Underwriting result
<b>Business assumed</b>				
Property and casualty reinsurance	479,433	15,045	579,410	(67,022)
Life and health reinsurance	149,279	21,470	158,803	23,909
	<b>628,712</b>	<b>36,515</b>	<b>738,213</b>	<b>(43,113)</b>
<b>Business ceded</b>				
Property and casualty reinsurance	(7,091)	(5,095)	(10,784)	(2,377)
Life and health reinsurance	(34,237)	(11,201)	(67,276)	(10,963)
	<b>(41,328)</b>	<b>(16,296)</b>	<b>(78,060)</b>	<b>(13,340)</b>
<b>Total</b>	<b>587,384</b>	<b>20,219</b>	<b>660,153</b>	<b>(56,453)</b>

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-processing computer 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 14 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.

### 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 9.0 million (EUR 8.1 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 0.7 million). The pension payments to previous members of the Executive Board and their surviving dependants, for whom 16 (16) pension commitments existed, totalled EUR 1.6 million (EUR 1.6 million) in the year under review; altogether, a provision of EUR 25.3 million (EUR 25.0 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 0.9 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,

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.

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 Item 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 103 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 2016 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 2016 financial year 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 2016 financial year shown in the following table. No allocations were made for the years 2005 or 2008.

#### Stock appreciation rights of Hannover Rück SE

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	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 2016 (in EUR)	32.13	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 2016	110,310	398,639	42,159	8,356
Provisions at 31 December 2016 (in EUR million)	3.25	3.56	0.37	0.09
Amounts paid out in the 2016 financial year (in EUR million)	4.40	2.73	0.18	0.03
Expense in the 2016 financial year (in EUR million)	0.65	0.54	–	(0.05)

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 103.00 as at the reference date of 15 December 2016, expected volatility of 21.09% (historical volatility on a five-year basis), an expected dividend yield of 4.61% and risk-free interest rates of -0.79% for the 2007 allocation year, -0.71% for the 2009 allocation year, -0.59% for the 2010 allocation year and -0.43% for the 2011 allocation year.

In the 2016 financial year the waiting period expired for 100% of the stock appreciation rights awarded in 2007 and 2009, for 80% of those awarded in 2010 and for 60% of those awarded in 2011. 2,443 stock appreciation rights from the 2007 allocation year, 20,809 stock appreciation rights from the 2009 allocation year, 305,726 stock appreciation rights from the 2010 allocation year and 136,746 stock appreciation rights from the 2011 allocation year were exercised. The total amount paid out stood at EUR 7.3 million.

On this basis the aggregate provisions – included in the sundry non-technical provisions – amounted to EUR 7.3 million (EUR 13.5 million) for the 2016 financial year. The expense totalled altogether EUR 1.1 million (EUR 3.6 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.

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

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	Allocation year								
	2016	2015		2014		2013		2012	
	Anticipated allocation	Final allocation 2016 for 2015	Anticipated allocation	Final allocation 2015 for 2014	Anticipated allocation	Final allocation 2014 for 2013	Anticipated allocation	Final allocation 2013 for 2012	Anticipated allocation
Valuation date									
Executive Board	30.12.2016	17.3.2016	30.12.2015	17.3.2015	30.12.2014	18.3.2014	30.12.2013	14.3.2013	28.12.2012
Senior executives	30.12.2016	24.3.2016	30.12.2015	24.3.2015	30.12.2014	25.3.2014	30.12.2013	21.3.2013	28.12.2012
Value per share award in EUR									
Executive Board	102.80	97.64	105.65	89.06	74.97	60.53	62.38	61.54	58.96
Senior executives	102.80	95.30	105.65	87.26	74.97	61.38	62.38	59.86	58.96
Number of allocated share awards in the allocation year									
Executive Board	10,704	11,244	9,355	12,172	13,308	16,631	14,418	16,452	16,053
Senior executives	81,322	79,383	65,107	85,460	85,159	99,783	91,660	102,900	100,531
Other adjustments <sup>1</sup>	–	(284)	–	(3,047)	–	(4,795)	–	(5,756)	–
Total	92,026	90,343	74,462	94,585	98,467	111,619	106,078	113,596	116,584

<sup>1</sup> This figure results from originally granted share awards that have since lapsed.

#### Development of the provision for share awards of Hannover Rück SE

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in EUR thousand	Allocation year						Total
	2016	2015	2014	2013	2012	2011	
Allocation 2011	–	–	–	–	–	289	289
Allocation 2012	–	–	–	–	1,839	409	2,248
Allocation 2013	–	–	–	1,426	1,442	285	3,153
Allocation 2014	–	–	1,534	2,364	2,549	529	6,976
Allocation 2015	–	1,658	3,102	4,288	5,020	1,036	15,104
<b>Provision at 31 December of the previous year</b>	<b>–</b>	<b>1,658</b>	<b>4,636</b>	<b>8,078</b>	<b>10,850</b>	<b>2,548</b>	<b>27,770</b>
Allocation 2016	1,918	2,429	1,920	2,177	2,133	–	10,577
Utilisation 2016	–	–	–	–	–	2,445	2,445
Release 2016	–	–	–	–	–	103	103
<b>Provision at 31 December of the year under review</b>	<b>1,918</b>	<b>4,087</b>	<b>6,556</b>	<b>10,255</b>	<b>12,983</b>	<b>–</b>	<b>35,799</b>

The aggregate provision – recognised under the sundry non-technical provisions – amounted to EUR 35.8 million (EUR 27.8 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 10.6 million (EUR 15.1 million). This consists of the expense for share awards of the 2015 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 1.4 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 22,232 share awards finally allocated in 2011 with a value of EUR 97.64 each plus the dividend entitlement of EUR 12.35 each were paid out to the eligible members of the Executive Board. The release of the provision for this tranche results from the difference between the share price of EUR 105.65 as at the last balance sheet date and the price of EUR 97.64 from March 2016 on which the payout was based.

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 2,804 (2,747); of this number, 2,575 (2,553) were employed at Group companies allocable to

operational insurance business. As at the balance sheet date altogether 2,893 (2,762) staff were employed by the Hannover Re Group, with 1,349 (1,337) employed in Germany and 1,544 (1,425) working for the consolidated Group companies abroad.

#### Personnel information

N 95

	2016					2015	
	31.3.	30.6.	30.9.	31.12.	Average	31.12.	Average
Number of employees (excluding Board members)	2,780	2,789	2,794	2,893	2,804	2,762	2,747

### 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 96

in EUR thousand	2016	2015
a) Wages and salaries	258,111	246,391
	<b>258,111</b>	<b>246,391</b>
b) Social security contributions and expenditure on provisions and assistance		
ba) Social security contributions	22,082	23,037
bb) Expenditures for pension provision	25,520	25,430
bc) Expenditures for assistance	5,016	4,784
	<b>52,618</b>	<b>53,251</b>
<b>Total</b>	<b>310,729</b>	<b>299,642</b>

## 8.5 Earnings per share and dividend proposal

### Calculation of the earnings per share

N 97

	2016	2015
Group net income in EUR thousand	1,171,229	1,150,725
Weighted average of issued shares	120,596,997	120,597,026
Basic earnings per share in EUR	9.71	9.54
Diluted earnings per share in EUR	9.71	9.54

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 16,413 (12,922) 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 572.8 million (EUR 512.5 million) was paid in the year under review for the 2015 financial year.

It will be proposed to the Annual General Meeting on 10 May 2017 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 2016 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 3,850.7 million (EUR 3,511.5 million) and EUR 45.6 million (EUR 27.2 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 1,857.5 million (EUR 1,810.3 million) in the form of so-called "single trust funds". This amount includes a sum equivalent to EUR 1,328.7 million (EUR 1,281.2 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 2,954.6 million (EUR 2,775.8 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. A syndicated letter of credit facility taken out in 2011 with a volume of nominally USD 1.0 billion originally had a term maturing at the beginning of 2019. It was terminated in January 2016 and partially refinanced through bilateral credit facilities.

Letter of credit facilities with various terms (maturing at the latest in 2021) and a total volume equivalent to EUR 2,826.0 million (EUR 2,764.4 million) exist on a bilateral basis with financial institutions.

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 1,343.7 million (EUR 1,335.2 million). In a departure from the previous year, this figure does not include letters of credit furnished in favour of Group companies in an amount of EUR 996.3 million (EUR 1,729.4 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 60 et seq., on the information pursuant to § 315 Para. 4 German Commercial Code (HGB).

We put up own investments with a book value of EUR 49.8 million (EUR 57.9 million) as collateral for existing derivative transactions. We received collateral with a fair value of EUR 17.7 million (EUR 6.9 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 594.4 million (EUR 592.7 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 1,096.4 million (EUR 837.1 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.

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 Rents and leasing

### Leased property

#### Future leasing commitments

N 98

in EUR thousand	Payments
2017	9,874
2018	9,425
2019	7,835
2020	6,354
2021	5,471
Subsequent years	7,100

Operating leasing contracts produced expenditures of EUR 11.3 million (EUR 10.8 million) in the year under review.

### Rented property

Altogether, non-cancellable contracts will produce the rental income shown below in subsequent years:

#### Rental income

N 99

in EUR thousand	Payments to be received
2017	89,118
2018	84,775
2019	80,844
2020	77,208
2021	70,654
Subsequent years	95,066

Rental income totalled EUR 94.8 million (EUR 87.8 million) in the year under review. The rental income resulted principally

from the 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:

in EUR thousand	2016		2015	
	KPMG worldwide	thereof KPMG AG	KPMG worldwide	thereof KPMG AG
Services relating to auditing of the financial statements	8,540	2,445	7,124	1,603
Other assurance services	401	320	534	428
Tax consultancy services	678	515	614	152
Other services	2,283	2,088	3,253	3,242
<b>Total</b>	<b>11,902</b>	<b>5,368</b>	<b>11,525</b>	<b>5,425</b>

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

In a press release dated 28 December 2016 we announced that we had been given final approval to establish a branch in India. After Hannover Re received this approval from the Insurance Regulatory and Development Authority of India (IRDAI) in December 2016, an application was submitted to the Indian Registrar of Companies in January 2017 for registration of the Hannover Rück SE-India Branch with its registered office in Mumbai. The branch, which writes both property and casualty reinsurance – including agricultural risks – and life and health reinsurance, commenced its business operations on 1 February 2017.

On 2 December 2016 the rating agency Standard & Poor's (S & P) downgraded South Africa's local debt rating to BBB. Consequently, the ratings of our subsidiaries Hannover Reinsurance

Africa Limited and Hannover Life Reassurance Africa Limited, both with their registered office in Johannesburg, were put on credit watch negative on 12 December 2016. In order to avert a possible downgrade, Hannover Rück SE (guarantor) furnished a guarantee for each of the companies effective 1 January 2017. The guarantees extend to all payment obligations of the companies arising out of the insurance and reinsurance contracts written by them. No conditions are attached to the guarantees, which are ongoing and binding upon the guarantor, and the commitments under the guarantees are equally ranked with all other unsecured liabilities of the guarantor. Upon recognition of the guarantees by S & P the negative credit watch was lifted on 8 February 2017 and both companies received the group rating (AA-/stable outlook).

Hannover, 7 March 2017

Executive Board



Wallin



Althoff



Chèvre



Gräber



Dr. Miller



Dr. Pickel



Vogel

## Auditors' report

We have audited the consolidated financial statements prepared by Hannover Rück SE, Hannover – comprising the consolidated balance sheet, consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in equity, consolidated cash flow statement and notes to the consolidated financial statements – as well as the combined management report of the company and the Group for the business year from 1 January to 31 December 2016. The preparation of the consolidated financial statements and the combined management report in accordance with IFRS, as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315a Para. 1 HGB are the responsibility of the parent company's management. Our responsibility is to express an opinion on the consolidated financial statements and on the combined management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institute of Public Auditors in Germany (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the combined management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations

as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the combined management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements and combined management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRS, as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315a Para. 1 HGB and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The combined management report is consistent with the consolidated financial statements, complies with the legal requirements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Hannover, 7 March 2017

KPMG AG  
Wirtschaftsprüfungsgesellschaft

Möller  
Wirtschaftsprüfer

Bock  
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 2017

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 2016 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 two meetings 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 2016. 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 and orally about the course of business and the position of the company and the Group on the basis of the quarterly financial statements. 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.

### 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. In addition, we received a report on the status of the Market Consistent Embedded Value in life and health reinsurance. A further key point of deliberation was the examination of the various reports in accordance with Solvency II (including ORSA, Day 1 Report). The Information Policy for the Supervisory Board was also revised against this backdrop. In addition, the Rules of Procedure for the Executive Board were updated. In the annual review of the investment guidelines the table of permitted share indices was revised. The updating of the minimum liquidity limit and the revision of the corresponding guideline also came under

We received an analysis of the 2015 results in property & casualty and life & health reinsurance as well as a presentation from the Executive Board covering the profit expectations for the 2016 financial year and the operational planning for the 2017 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 German Stock Corporation Act were required in the 2016 financial year.

scrutiny. Furthermore, a report was received on the return on investment in comparison with competitors. Extensive consideration was also given to the EU Audit Reform and the corresponding resolution (including in relation to the updated Rules of Procedure for the Finance and Audit Committee). In addition, the strategic approach of acquiring capital participations in a Lloyd's syndicate was discussed at length. 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 2015 financial year.

### Committees of the Supervisory Board

Of the committees formed by the Supervisory Board within the meaning of § 107 Para. 3 German Stock Corporation Act, the Finance and Audit Committee met on four occasions and the Standing Committee met three times. 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 2016 financial year. The Committee was provided with detailed reports on the purchase of The Congregational & General Insurance Public Limited Company (CGI) as well as on the recognition and measurement of the risk-oriented book of US life reinsurance business acquired in 2009 from Scottish Re. The Committee also received an explanation of the capital market risks in life and health reinsurance and considered various M&A projects. Furthermore, the future form of the company's regular financial reporting with an eye to transposition of the EU Transparency Directive into national law was explored. The Committee prepared various resolutions to be adopted by the Supervisory Board, including a resolution on the approach to be taken in connection with the EU audit reform. The reporting on the Auditor Supervision Act and the Audit Reform Act as well as the resulting considerations and measures were a major point of emphasis in the work of the Finance and Audit Committee. Once it had been agreed that the independent auditor of the company's individual and consolidated financial statements

should be changed early for the 2018 financial year, a project was set in motion to prepare and initiate the tender procedure. At an extraordinary meeting of the Committee on 30 November 2016 three auditing firms presented and enlarged upon the bids that they had submitted in writing. The validation of the report compiled by the company on the conclusions drawn by the Finance and Audit Committee in the selection process as well as the adoption of board resolutions in this connection will take place in the 2017 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 2015 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 Mr. Ulrich Wallin, Mr. Sven Althoff, Mr. Jürgen Gräber and Mr. Roland Vogel.

## Corporate Governance

The Government Commission on the German Corporate Governance Code (DCKG) did not make any changes to the German Corporate Governance Code in 2016. The Supervisory Board nevertheless devoted considerable attention to the topic of corporate governance. For example, the results of the efficiency evaluation of the Supervisory Board's activities in accordance with Item 5.6 of the Code as well as the optimisation measures to be adopted on this basis were considered at length. It also determined the differentiations that are required for the vertical comparison of remuneration pursuant to Item 4.2.2 of the Code. 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.

In connection with the implementation of Solvency II the company offered the Supervisory Board an internal training event in 2016. This enabled the members of the Supervisory Board to improve their knowledge of the new regulatory developments resulting from the laws and policies adopted in the context of Solvency II. Topical concentrations included, among others,

the special demands placed on the Supervisory Board, requirements with respect to the business organisation and key functions as well as the company's internal model. 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 Item 4.2.3 Para. 2 regarding caps on the amount of variable compensation elements in management board contracts, in Code Item 4.2.3 Para. 4 concerning a cap on severance payments in management board contracts, in Code Item 5.2 Para. 2 concerning the Chair of the Audit Committee and in Code Item 5.3.2 concerning the independence of the Chair of the Audit Committee. Justification for these divergences is provided in the Declaration of Conformity pursuant to § 161 German Stock Corporation Act 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 2016 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 German Stock Corporation Act (Report on relations with affiliated companies)

– in each case drawn up as at 31 December 2016 – 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 2016 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. Mr. Sven Althoff, Mr. Jürgen Gräber, Mr. Roland Vogel and Mr. Ulrich Wallin were reappointed as members of the Executive Board, with the latter at the same time being appointed as Chairman of the Executive Board.

### Word of thanks to the Executive Board and members of staff

The very good result once again generated by Hannover Rück SE for the 2016 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 2017

For the Supervisory Board

Herbert K. Haas  
Chairman



# Supervisory Board of Hannover Rück SE

**Herbert K. Haas**<sup>1, 2, 4</sup>

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**<sup>1</sup>

Ascona, Switzerland

**Deputy Chairman**

**Former member of the Executive Board of RWE AG**

**Wolf-Dieter Baumgartl**<sup>1, 2, 4</sup>

Berg

**Former Chief Executive Officer of Talanx AG and HDI Haftpflichtverband der Deutschen Industrie V.a.G.**

**Frauke Heitmüller**<sup>5</sup>

Hannover

**Employee**

**Otto Müller**<sup>5</sup>

Hannover

**Employee**

**Dr. Andrea Pollak**<sup>4</sup>

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**<sup>2, 3</sup>

Hannover

**Member of various supervisory boards**

**Maike Sielaff**<sup>5</sup>

Burgwedel

**Employee**

<sup>1</sup> Member of the Standing Committee

<sup>2</sup> Member of the Finance and Audit Committee

<sup>3</sup> Independent financial expert on the Finance and Audit Committee

<sup>4</sup> Member of the Nomination Committee

<sup>5</sup> 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**

Level 7  
70 Phillip Street  
Sydney NSW 2000  
Tel. +61 2 9251-6911  
Fax +61 2 9251-6862  
**Managing Director & CEO:**  
Gerd Obertopp

#### **Hannover Rueck SE Australian Branch**

The Re Centre, Level 21  
Australia Square  
264 George Street  
Sydney NSW 2000  
G.P.O. Box 3973  
Sydney NSW 2001  
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**

Level 12  
20 Bond Street  
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  
17<sup>th</sup> Floor  
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# 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:** innovative 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 products:** reinsurance with limited potential for profits and losses; the primary objective is to strive for risk equalisation over time and to stabilise the cedant's balance sheet.

**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

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## I Introductory Sections

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# Financial calendar 2017

## **9 March 2017**

**Annual financial statements 2016**

**Annual Results Press Conference**, Hannover

**Analysts' Meeting**, London

## **10 May 2017**

**Quarterly Statement as at 31 March 2017**

**Annual General Meeting**

Hannover Congress Centrum

Theodor-Heuss-Platz 1–3

30175 Hannover

## **10 August 2017**

**Half-yearly Financial Report 2017**

## **19 October 2017**

**20<sup>th</sup> International Investors' Day**, Frankfurt am Main

## **8 November 2017**

**Quarterly Statement as at 30 September 2017**



