Combined management report

Foundations of the Group

Business model

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

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

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

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

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

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

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

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

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

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

Management system

Value-based management

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

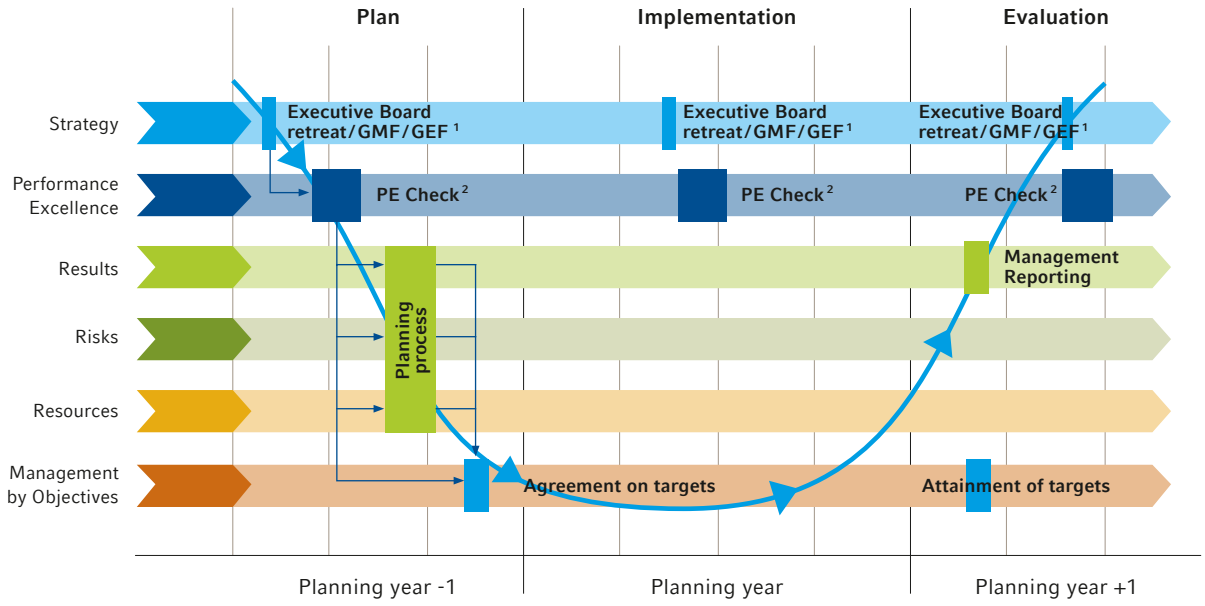
Target attainment **M01**

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

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

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

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



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

Management by Objectives

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

Management Reporting

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

Capital allocation

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

IVC – the strategic management ratio

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

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

In this way, we can

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

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

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

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

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

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

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

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

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

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

Operational management system

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

Research and development

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

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

Vision creates value.

Through innovation.

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

Innovative insurtech apps simplify lengthy application processes and enable contract formation in just a few clicks.

Through our collaboration with insurtech companies, we are able to provide our clients with optimal solutions to enhance their digital sales processes and customer engagement.

Report on economic position

Macroeconomic climate and industry-specific environment

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

Macroeconomic climate

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

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

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

United States

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

Europa

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

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

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

Germany

For the fifth year in succession the German economy sustained its upswing of the past four years in 2017. A vigorous start to the year was followed by a further acceleration in the pace of economic growth in the subsequent months, boosting gross domestic product – before working days adjustment – by 2.3% (1.9%). Since entering the boom of the years 2006/2007 the German economy recorded stronger growth than in the first three quarters only in the context of the catch-up effects following the great economic slump at the beginning of the previous

decade. In view of the very healthy cyclical demand, production capacity utilisation continued to increase and numerous sectors reached their capacity limits. Capacity utilisation remained exceptionally strong in the construction industry.

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

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

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

Asia

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

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

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

Capital markets

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

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

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

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

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

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

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

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

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

Industry-specific environment

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

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

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

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

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

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

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

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

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

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

Business development

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

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

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

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

Property & Casualty reinsurance

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

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

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

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

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

Life & Health reinsurance

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

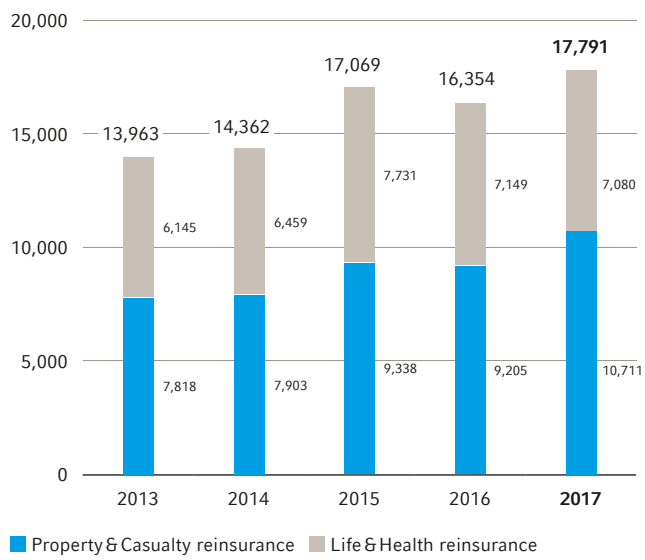
Our financial solutions business, which further increased its profit contribution, was thoroughly gratifying. We were less satisfied with the development of our US mortality business – and in particular with the portfolio assumed in 2009, which continues to show a mortality in excess of expectations.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

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

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

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

Gross premium by business group **M 04**
in EUR million



Investments

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

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

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

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

Total result

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

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

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

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

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

Business development in the year under review M 05

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

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

Vision creates value.

Through reliability.

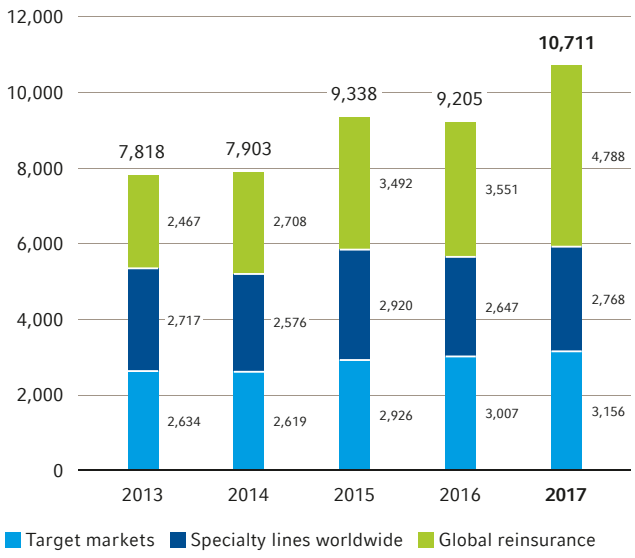
We settle claims quickly and straightforwardly to keep downtimes as short as possible.

Natural disasters cause damage to property, which can in turn trigger production losses and business interruptions.

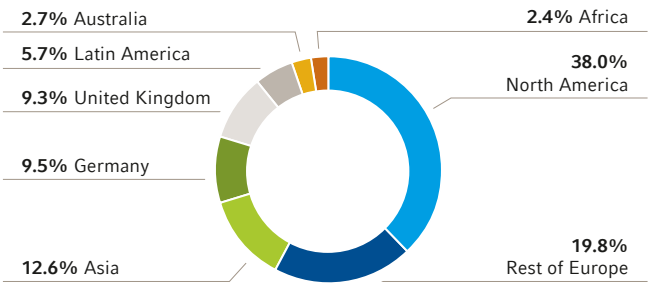
Extreme weather events are coming up against rising insured values: In 2017, insured losses from natural disasters amounted to more than USD 100 billion worldwide.

Property & Casualty reinsurance at a glance

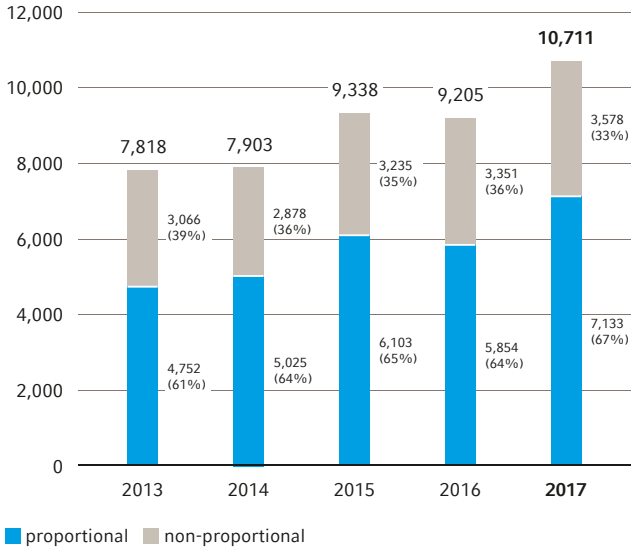
Gross written premium in P&C reinsurance M06
in EUR million



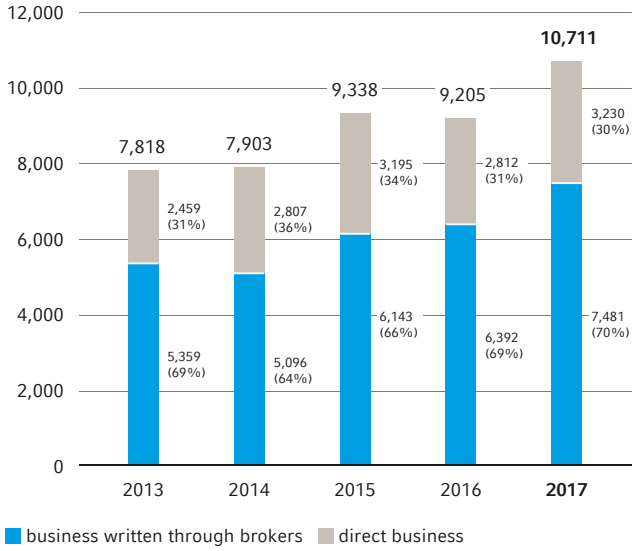
Geographical breakdown of gross written premium in 2017 M07



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



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



Overall assessment of the business position

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

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

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

Results of operations

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

Property & Casualty reinsurance

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

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

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

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

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

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

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

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

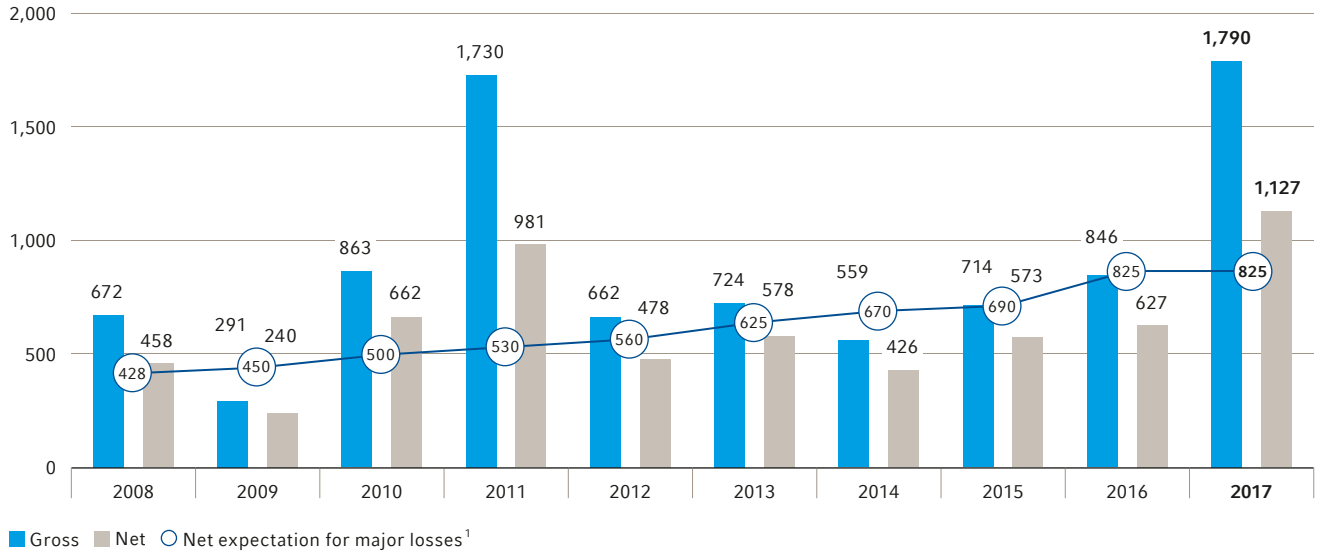
On the following pages we report in detail on developments in the individual markets and lines of our Property & Casualty reinsurance business group, split into the three areas of Board responsibility referred to at the beginning of this section.

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

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

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

Property & Casualty reinsurance: Major loss trend[1] **M 11**
in EUR million



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

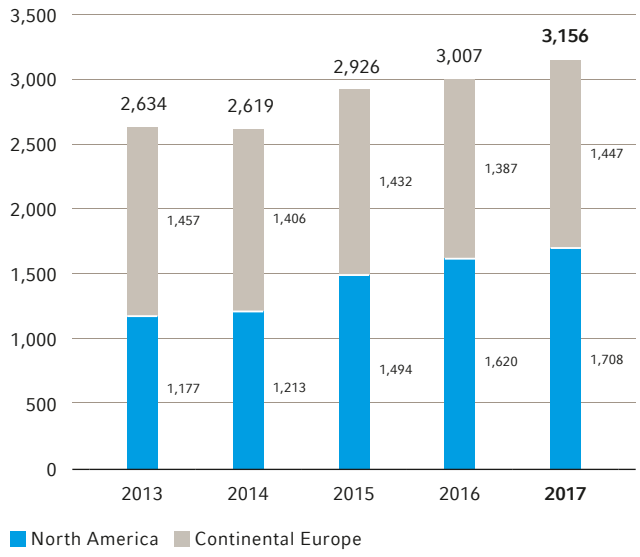
Property & Casualty reinsurance: Key figures for individual markets and lines in 2017 **M 12**

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

Target markets

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

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



North America

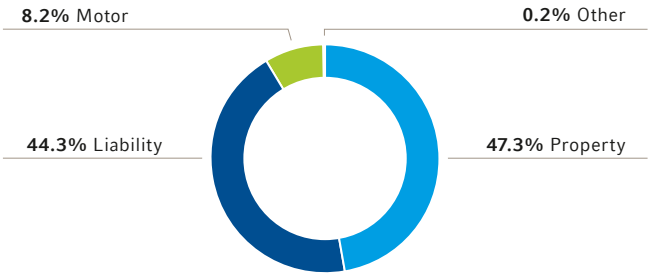
The North American (re)insurance market is the largest single market both worldwide and for Hannover Re. Our business here is written almost exclusively through brokers.

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

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

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

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



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

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

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

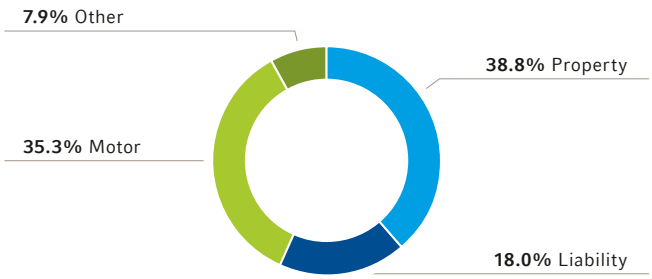
The "Covered Agreement" between the United States and European Union that was signed in September 2017 will have pleasing implications for future results. The reinsurance collateral that we are required to furnish to our customers for business written in the US will be reduced or entirely eliminated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

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

Continental Europe

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

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



Germany

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

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

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

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

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

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

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

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

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

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

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

Rest of Continental Europe

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

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

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

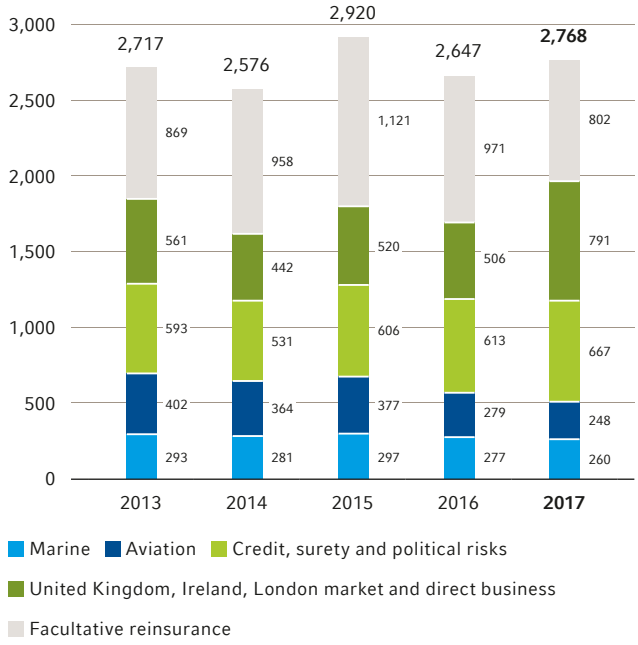
Despite the competition, the lively demand for reinsurance solutions continued unabated. A key driver here was the more demanding requirements placed on the capital resources of insurance companies under Solvency II. On the whole, we were able to secure broadly risk-adequate rates and conditions for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

Specialty lines worldwide

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

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

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



Marine

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

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

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

Aviation

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

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

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

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

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

Credit, surety and political risks

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

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

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

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

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

United Kingdom, Ireland, London Market and direct business

United Kingdom, Ireland and the London Market

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

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

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

Direct business

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

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

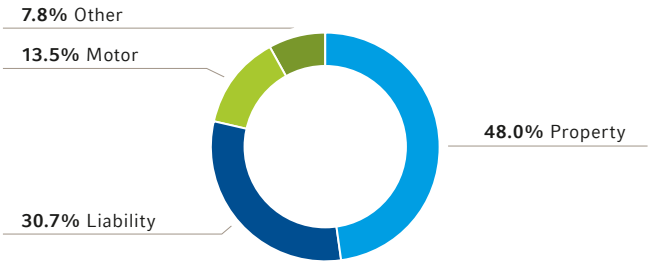
The gross premium booked from the United Kingdom, Ireland, the London Market and direct business rose from EUR 505.6 million to EUR 791.2 million. The vigorous growth derived in part from the aforementioned effects and was also due to a portfolio transfer from the area of facultative reinsurance. Reflecting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

Facultative reinsurance

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

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

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



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

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

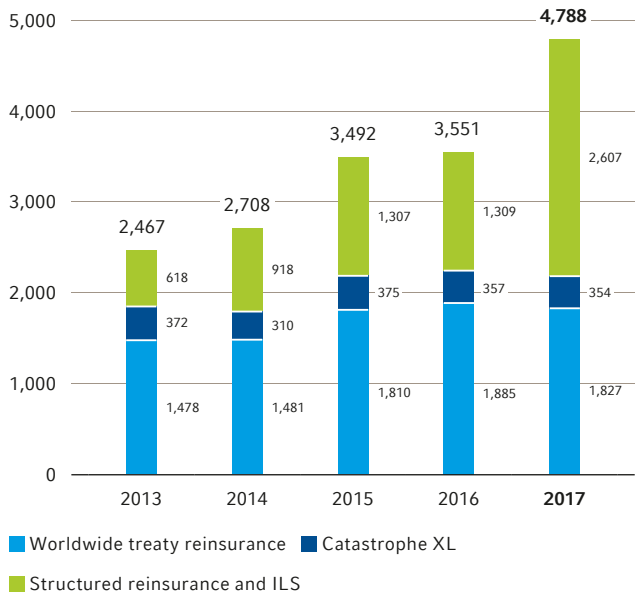
Despite the heavy losses incurred from natural disasters around the world, we are thoroughly satisfied with the development of our overall facultative portfolio in the 2017 financial year. In addition to the considerable expenditures on catastrophe losses, substantial losses were again recorded in industrial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

Global reinsurance

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

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

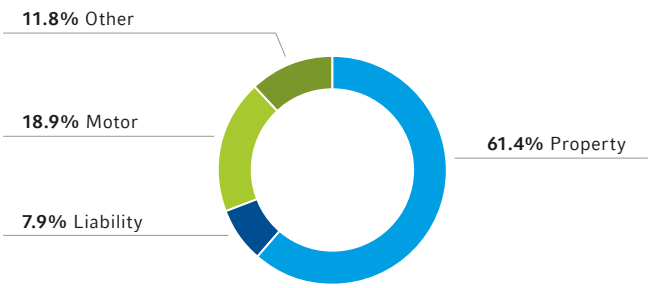
Property & Casualty reinsurance: Breakdown of gross written premium in global reinsurance M 18
in EUR million



Worldwide treaty reinsurance

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

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



Asia-Pacific region

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

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

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

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

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

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

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

South Africa

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

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

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

Latin America

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

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

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

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

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

Agricultural risks

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

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

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

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

Retakaful business

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

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

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

Catastrophe XL (Cat XL)

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

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

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

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

Structured reinsurance and insurance-linked securities

Structured reinsurance

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

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

Insurance-linked securities (ILS)

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

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

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

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

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

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

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

Life & Health reinsurance

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

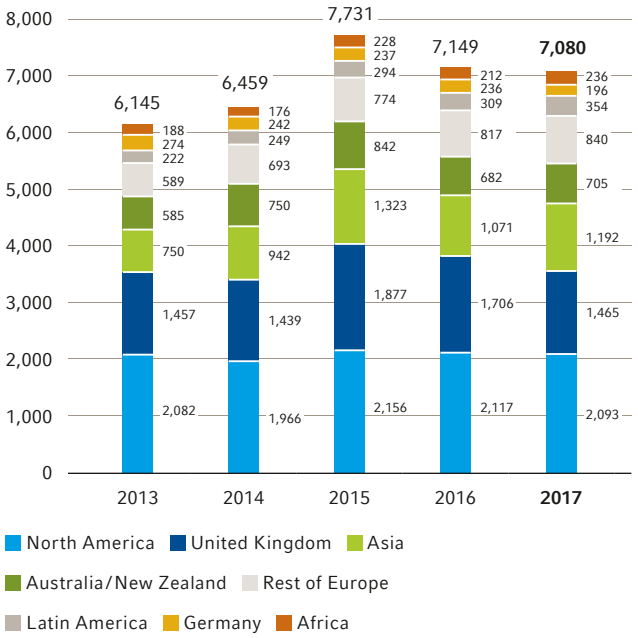
Life and health reinsurance contributed a substantial 40% (previous year: 44%) share of Group gross premium in the year under review. The business is characterised by enduring mutual commitments, and we attach great value to a partnership-based approach. Thanks to our global network and our know-how,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

Total business

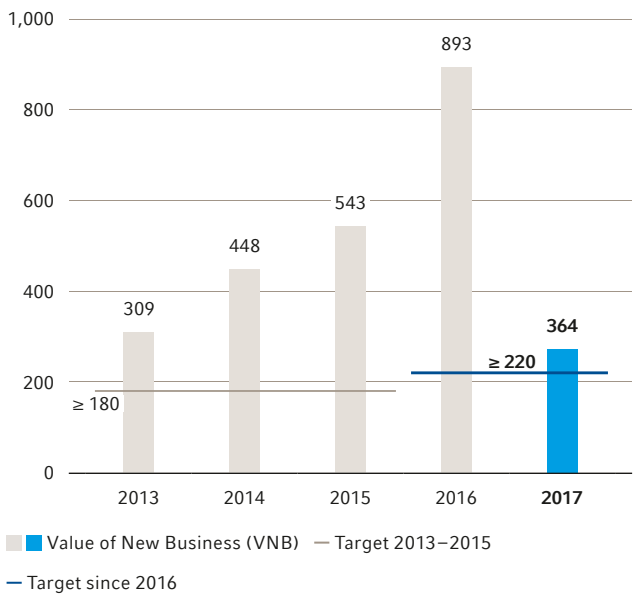
The numerous positive developments in our international life and health reinsurance portfolio were accompanied in the financial year just ended by individual parts of the business that fell short of our expectations. Essentially, this involved parts of the US mortality portfolio acquired in 2009. With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

Life & Health reinsurance at a glance

Breakdown of gross premium by markets M20
in EUR million

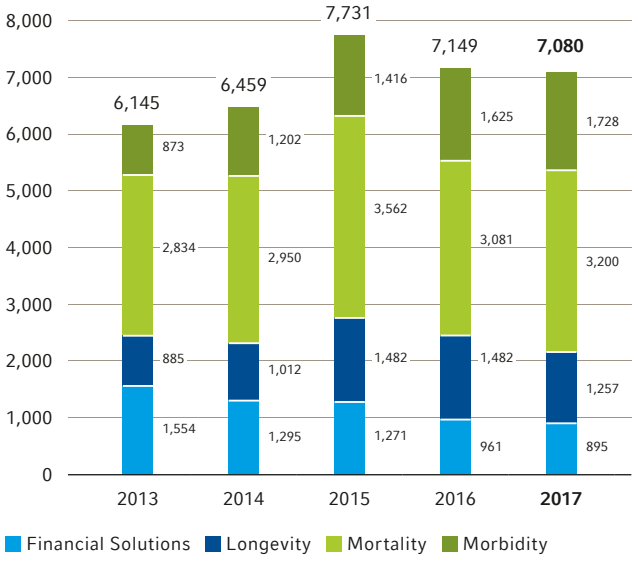


Value of New Business (VNB) growth[1] M21
in EUR million

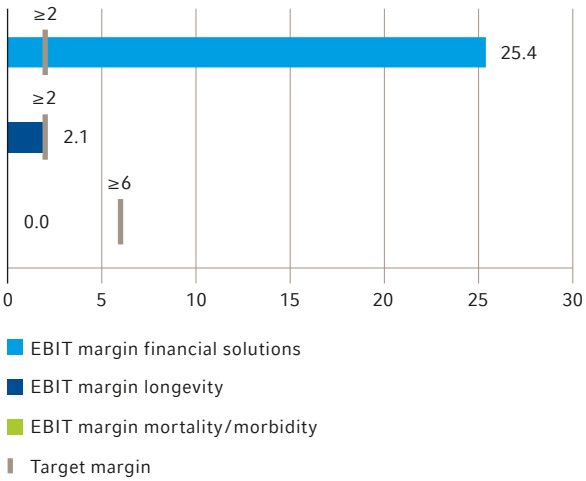


[1] Since 2016 based on Solvency II principles and pre-tax reporting; until 2015 MCEV principles (cost of capital already increased from 4.5% to 6% in 2015) and post-tax reporting

Breakdown of gross written premium by reporting categories M22
in EUR million



EBIT-margin per reporting category vs. target margins 2017 M23
in %



Key figures for Life & Health reinsurance M 24

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

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

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

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

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

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

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

The operating result (EBIT) in life and health reinsurance reached a level of EUR 245.2 million (EUR 343.3 million). This decline of 28.6% can be attributed in large measure to

the poorer-than-expected performance of the US mortality portfolio and the aforementioned one-off effect. Group net income for life and health reinsurance retreated accordingly to EUR 172.6 million (EUR 252.9 million).

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

Financial Solutions

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

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

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

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

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

Longevity

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

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

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

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

Mortality and Morbidity

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

Mortality

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

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

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

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

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

Morbidity

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

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

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

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

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

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

Underwriting services

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

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

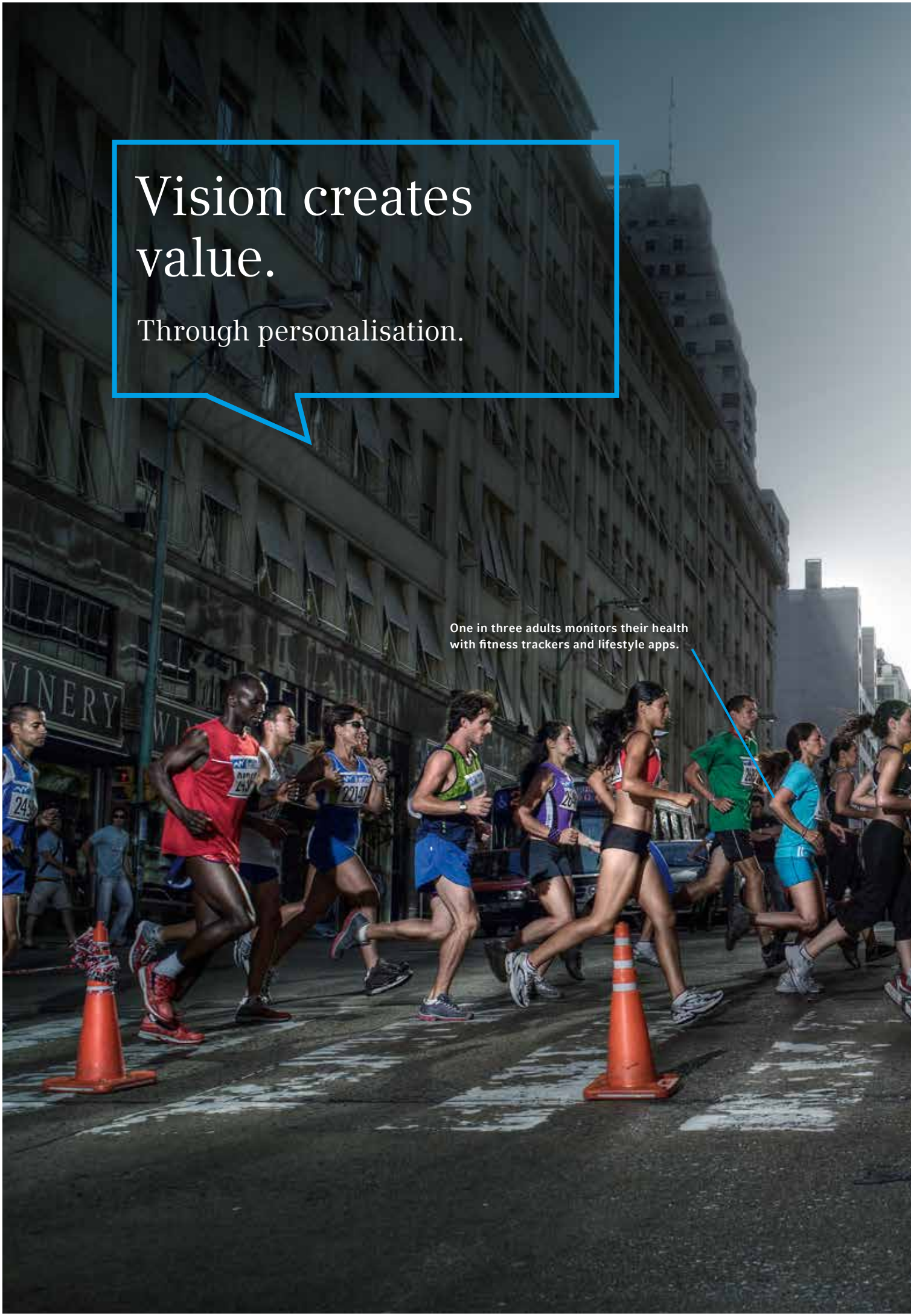
Along with these activities, we intensified the dialogue and interaction with (online) platforms specialised in insurance solutions as part of our drive towards digitalisation. Those policyholders who value their health and quality of life and would like to always keep track of their medical and biological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

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

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

Vision creates value.

Through personalisation.



One in three adults monitors their health with fitness trackers and lifestyle apps.

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

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

Investments

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

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

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

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

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

Investment income M25

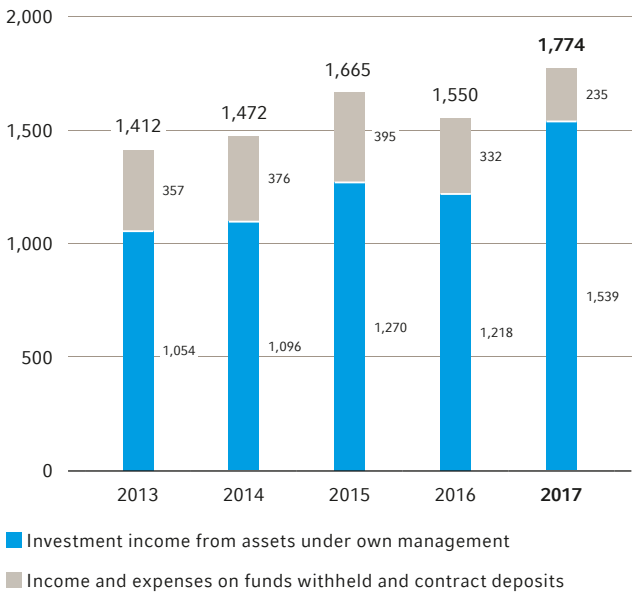
in EUR million	2017	+/– previous year	2016	2015	2014	2013
Ordinary investment income [1]	1,289.0	+10.9%	1,162.0	1,253.4	1,068.4	1,041.3
Result from participations in associated companies	16.0	+75.9%	9.1	19.2	1.0	12.5
Realised gains/losses	377.1	+82.8%	206.3	135.8	182.5	144.2
Appreciation	0.9	+210.5%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

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

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

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

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



Financial position and net assets

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

Investment policy

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

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

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

By adjusting the maturity pattern of our fixed-income securities to the expected payment patterns of our liabilities we reduce the economic exposure to the interest rate risk. In the current reporting period this gave rise to a broadly neutral modified duration of our bond portfolio, which stood at 4.8 (previous year: 5.0) as at 31 December 2017. Through active and regular

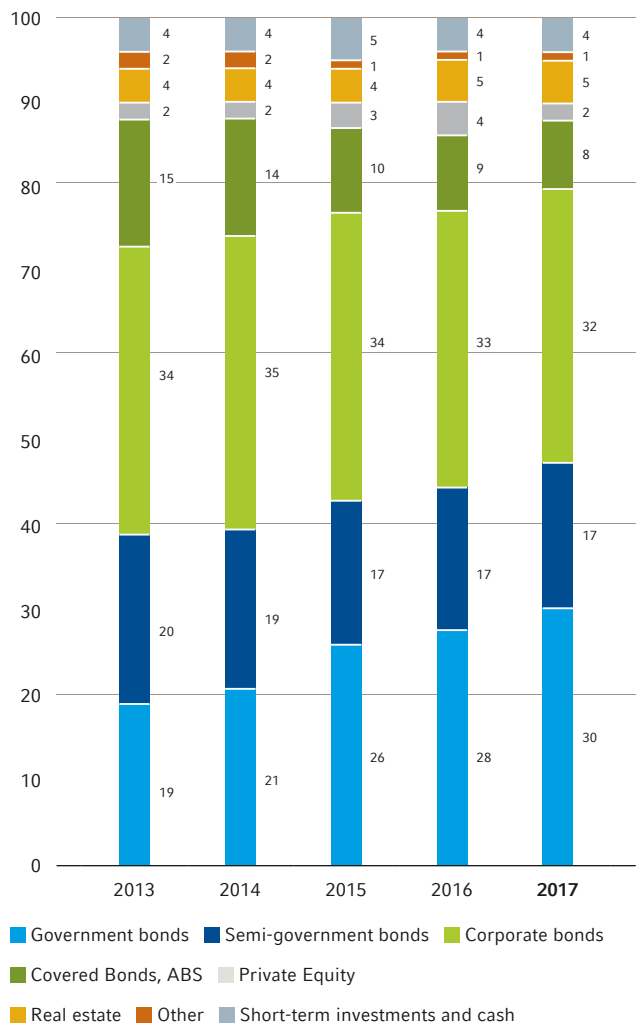
management of the currency spread in our fixed-income portfolio we bring about extensive matching of currencies on the assets and liabilities sides of the balance sheet, as a consequence of which fluctuations in exchange rates have only a limited effect on our result.

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

Investment portfolio M 27

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

Breakdown of investments under own management M 28
in %



Investments

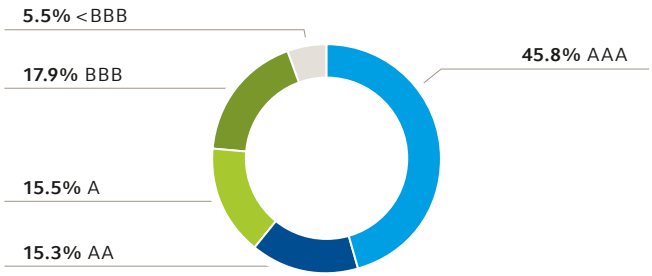
Our portfolio of assets under own management amounted to EUR 40.1 billion, a level lower than at the end of the previous year (31 December 2016: EUR 41.8 billion). This decline primarily reflects exchange rate effects – especially the strength of the euro against the US dollar. These were offset to some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

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

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

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

Rating of fixed-income securities M 29



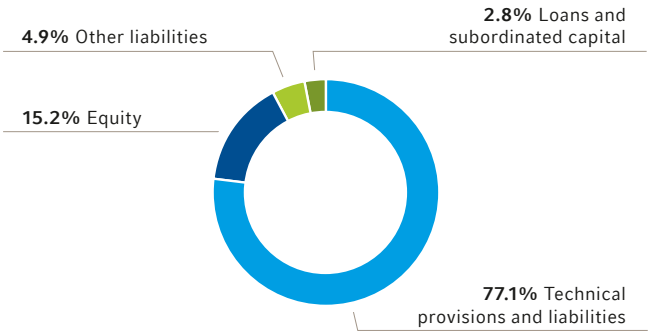
Holdings of alternative investment funds increased slightly overall. As at 31 December 2017 an amount of EUR 776.3 million (EUR 722.4 million) was invested in private equity funds; a further EUR 818.3 million (EUR 750.7 million) was attributable predominantly to investments in high-yield bonds and loans.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

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

Analysis of the capital structure

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

Capital structure as at 31 December 2017 M 30



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

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

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

Management of policyholders' surplus

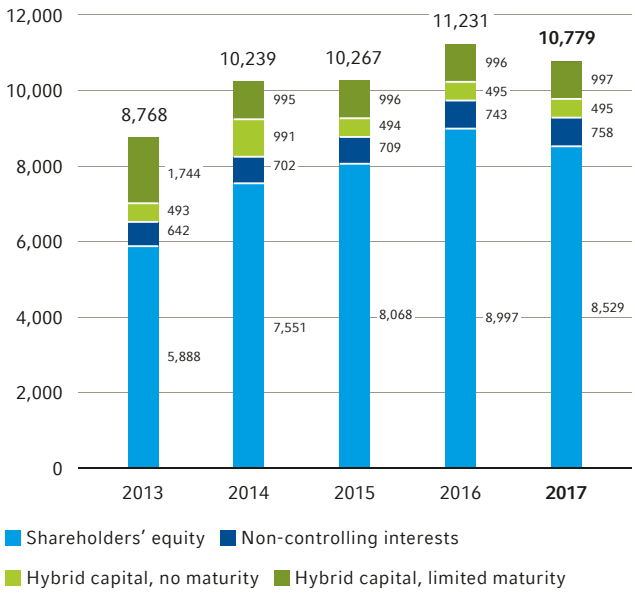
A key strategic objective of Hannover Re is long-term capital preservation. Just as in previous years, we issued hybrid capital as an equity substitute in order to keep the cost of capital on a low level. The policyholders' surplus is an important management ratio in the context of Hannover Re's comprehensive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

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

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

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

Development of policyholders' surplus M 31
in EUR million



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

Group shareholders' equity

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

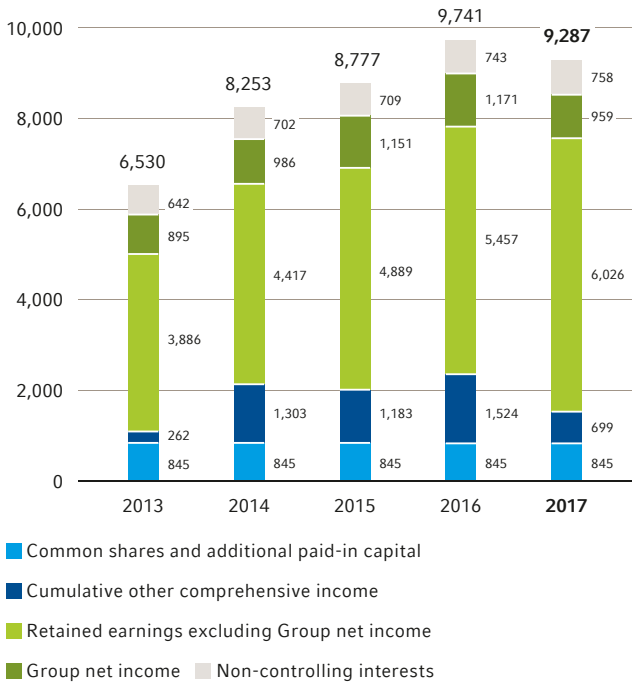
The foreign currency gains and losses contracted by EUR 742.6 million from EUR 680.1 million to EUR -62.5 million as a consequence of exchange rate movements of foreign currencies against the euro in the financial year. The decrease in the reserve for currency translation adjustments resulted principally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

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

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

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

Development of Group shareholders' equity M 32
in EUR million



Financing and Group debt

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

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

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

Amortised cost of our subordinated bonds M 33

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

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

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

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

Analysis of the consolidated cash flow statement

Liquidity

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

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

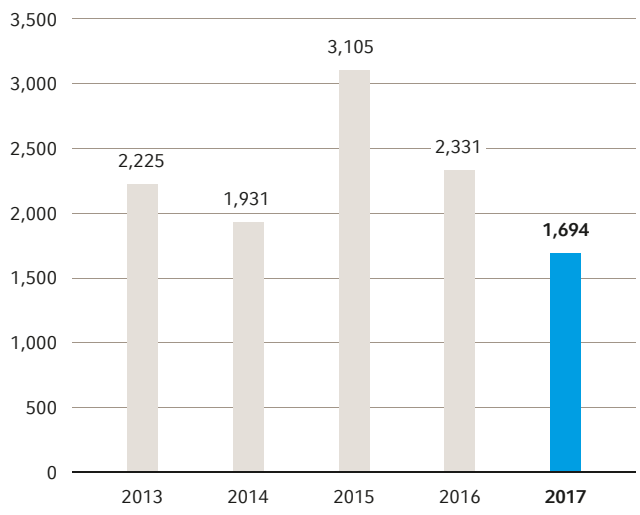
Consolidated cash flow statement M 34

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

Cash flow from operating activities

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

Cash flow from operating activities M 35
in EUR million



Cash flow from investing activities

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

Cash flow from financing activities

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

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

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

Financial strength ratings

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

Financial strength ratings of the Hannover Re Group M 36

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

Financial strength ratings of subsidiaries M 37

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

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

Issue ratings of issued debt

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

Issue ratings of issued debt **M 38**

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

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

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

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

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

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

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

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

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

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

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

Information on Hannover Rück SE

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

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

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

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

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

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

Results of operations

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

Condensed profit and loss account of Hannover Rück SE M 39

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

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

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

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

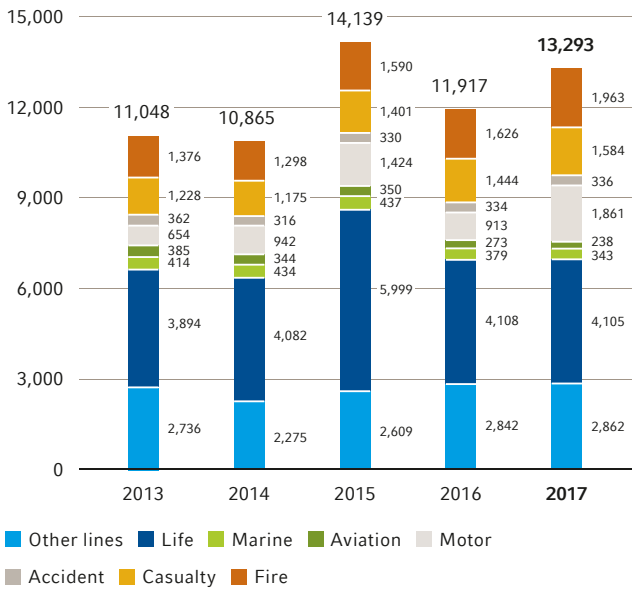
All in all, the net investment result retreated to EUR 1,197.5 million (EUR 1,287.0 million). The balance of other income and charges changed from EUR -113.2 million to EUR -196.3 million.

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

Development of the individual lines of business

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

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



Fire

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

Casualty

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

Accident

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

Motor

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

Aviation

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

Marine

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

Life

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

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

Other lines

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

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

Assets and financial position

Balance sheet structure of Hannover Rück SE **M 41**

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

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

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

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

A dividend of EUR 3.50 plus a special dividend of EUR 1.50 per share, equivalent to EUR 603.0 million (EUR 572.8 million), was paid out in the year under review for the 2016 financial year.

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

Risks and opportunities

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

Other information

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

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

Outlook

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

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

Group non-financial information statement

Introduction

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

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

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

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

Description of the business model

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

Group and sustainability strategy

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

Group Strategy 2015-2017

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Responsible enterprise management

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

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

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

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

Goal to be achieved by 2017:
Value creation for our shareholders M 43

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

Goal to be achieved by 2017:
Attractive investment for sustainability-minded investor groups M 44

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

Compliance

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

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

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

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

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

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

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

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

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

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

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

M 45

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

Stakeholder dialogue

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

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

Goal to be achieved by 2017:
Purposeful stakeholder dialogue

M 46

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

Sustainable insurance solutions

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

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

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

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

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

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

M 47

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

ESG criteria in asset management

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

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

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

Goal to be achieved by 2017:
Extension of ESG guidelines for asset management **M 48**

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

Customer orientation and satisfaction

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

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

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

We regularly conduct customer surveys in order to measure the satisfaction of our customers regionally and Group-wide; these are carried out both independently and, when it comes to certain markets, by drawing on the services of external market research institutes. We process the results of our customer surveys and studies in-house so as to identify potential action fields. The steps that were taken not only served to improve the perception of our brand, they also made our

services and products stronger. In recent years, for example, we have increasingly expanded our automated underwriting systems according to the wishes of our customers and we have brought new product ideas to market.

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

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

Executive development/Employee advancement

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

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

Breakdown of employees by country M 50

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

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

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

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

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

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

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

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

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

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

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

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

M 52

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

Employee retention

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

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

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

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

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

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

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

Goal to be achieved by 2017:
Expansion of further training measures for specialist and executive staff M53

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

Diversity

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

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

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

Goal to be achieved by 2017:
Promoting diversity and a work/life balance M54

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

Vision creates value.

Through predictability.

Our reinsurance products contribute substantially to hedging against crop failure and stabilising the world's food situation.

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

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

Opportunity and risk report

Risk report

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

Strategy implementation

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

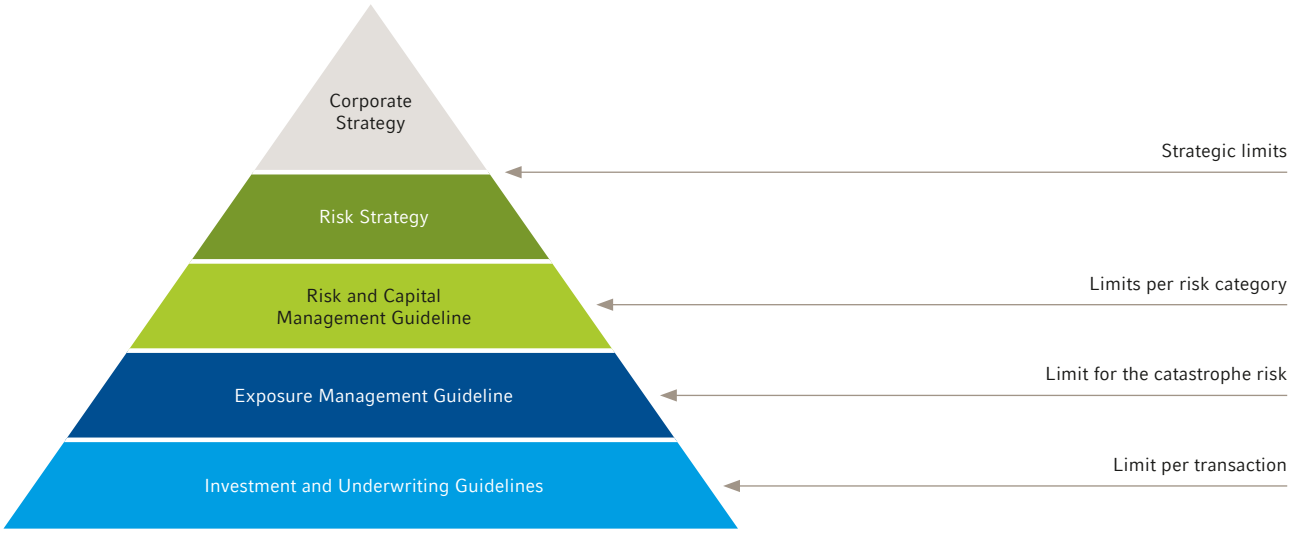
Our risk strategy is derived from the corporate strategy. The following principles of the corporate strategy constitute the key strategic points of departure for our Group-wide risk management:

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

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

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

Risk management through multiple levels of limits M55



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 **M 56**

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

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

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

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

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

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

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

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

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

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

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

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

Risk capital

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

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

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

Available capital and required risk capital **M 57**

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

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

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

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

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

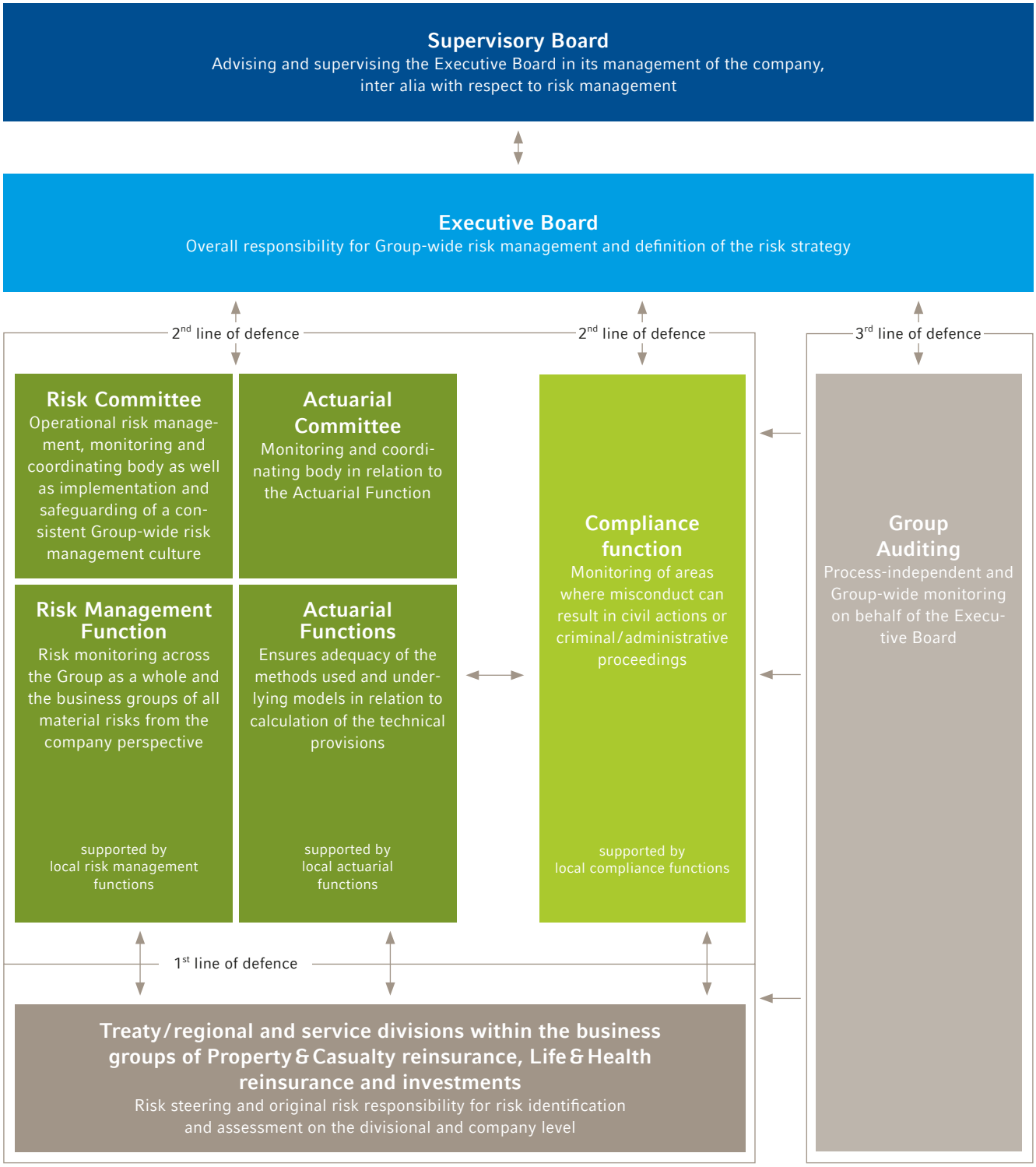
In awarding these ratings the agencies highlighted the company's very good risk management, the consistent and systematic implementation of corporate strategy by management and its excellent capital resources. Hannover Re's internal capital model was also subjected to expert appraisal. As a result of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

Organisation and processes of risk management

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

following chart provides an overview of the central functions and bodies within the overall system as well as of their major tasks and powers.

Central functions of risk monitoring and steering M58



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

Key elements of our risk management system

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

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

Risk-bearing capacity concept

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

Risk identification

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

Risk analysis and assessment

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

Risk steering

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

Risk monitoring

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

Risk communication and risk culture

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

Risk reporting

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

Process-integrated/-independent monitoring and quality assurance

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

Internal control system

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

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

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

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

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

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

Risk landscape of Hannover Re

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

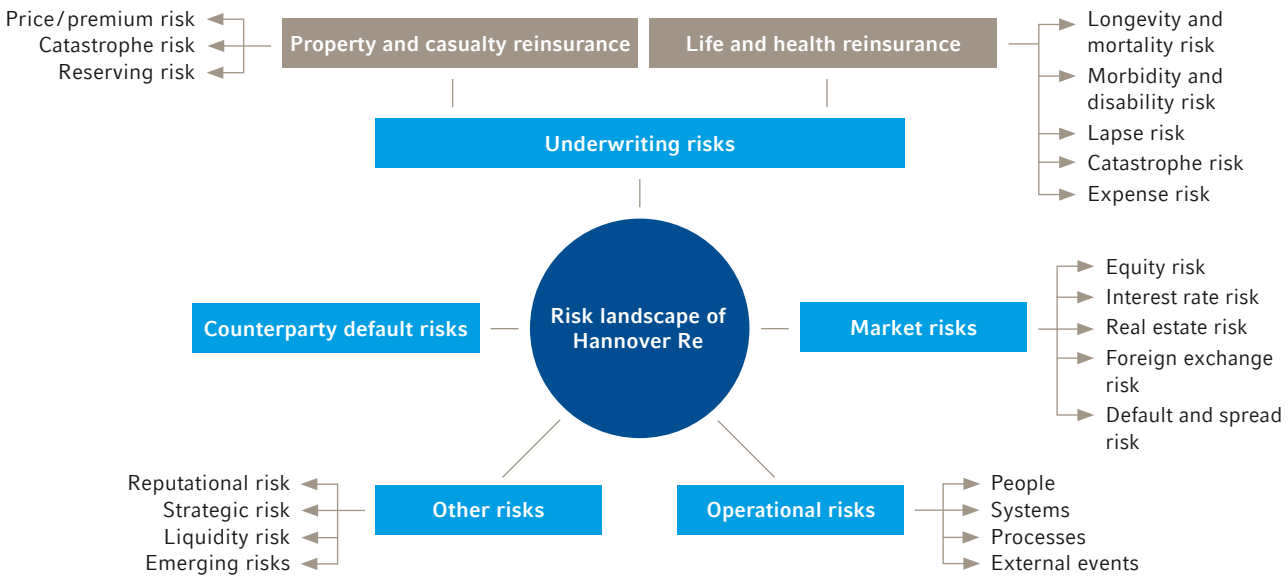
The risk landscape of Hannover Re encompasses:

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

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

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

Risk landscape of Hannover Re M 59



Internal risk assessment

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

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

Reconciliation (economic capital/shareholders' equity) **M 60**

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

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

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

3 Adjustments for technical provisions incl. risk margin.

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

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

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

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

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

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

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

Required risk capital M 61

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

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

Underwriting risks in property and casualty reinsurance

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

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

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

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

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

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

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

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

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

The reserve risk, i. e. the risk of under-reserving losses and the resulting strain on the underwriting result, is a high priority in our risk management. We attach importance to maintaining a conservative reserving level. In order to counter the risk of under-reserving we calculate our loss reserves based on our own actuarial estimations and establish, where necessary, additional reserves supplementary to those posted by our cedants as well as the segment reserve for losses that have already

occurred but have not yet been reported to us. Liability claims have a major influence on the segment reserve. The segment reserve is calculated on a differentiated basis according to risk categories and regions. The segment reserve established by the Hannover Re Group amounted to EUR 6,927.9 million in the year under review.

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

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

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

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

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

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

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

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

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

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

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

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

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

[1] Loss relative to the underwriting result

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

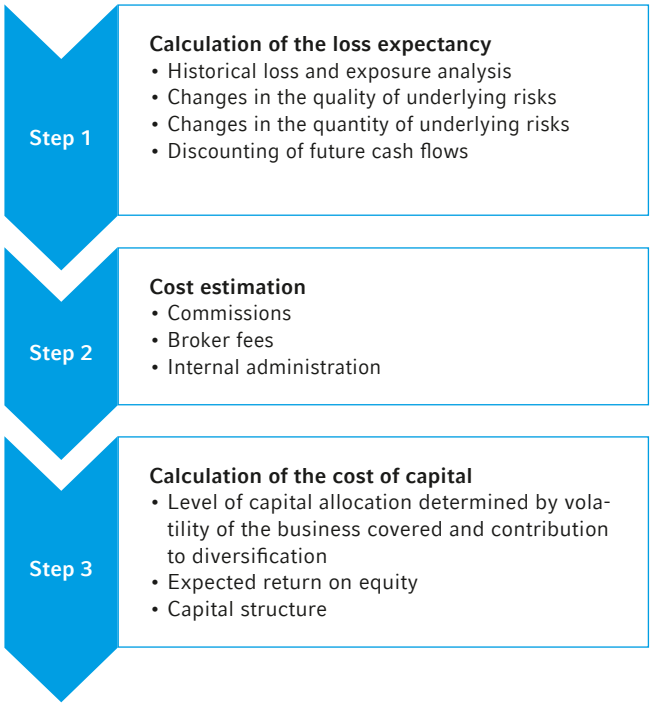
Catastrophe losses and major claims [1] in 2017 **M 67**

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

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

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

Ensuring the quality of our portfolios M 68



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

Combined and catastrophe loss ratio M 69

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

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

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

Underwriting risks in life and health reinsurance

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

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

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

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

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

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

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

in order to obtain an overall view of the risks in life and health reinsurance. Our global underwriting guidelines provide underwriters with an appropriate framework for this purpose.

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

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

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

Market risks

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

Required risk capital[1] for market risks **M 71**

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

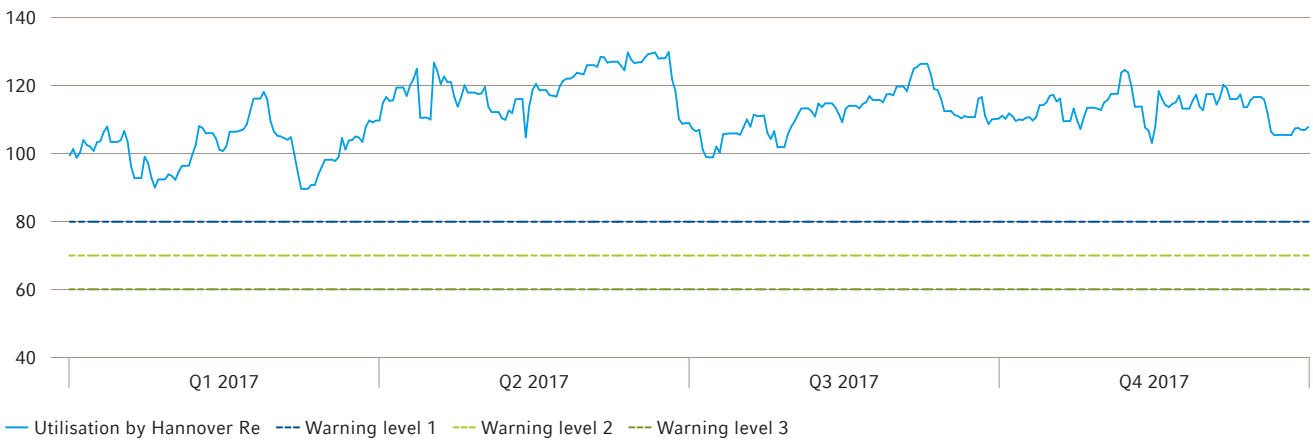
1 Required risk capital at a confidence level of 99.5%
2 Including Private Equity

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

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

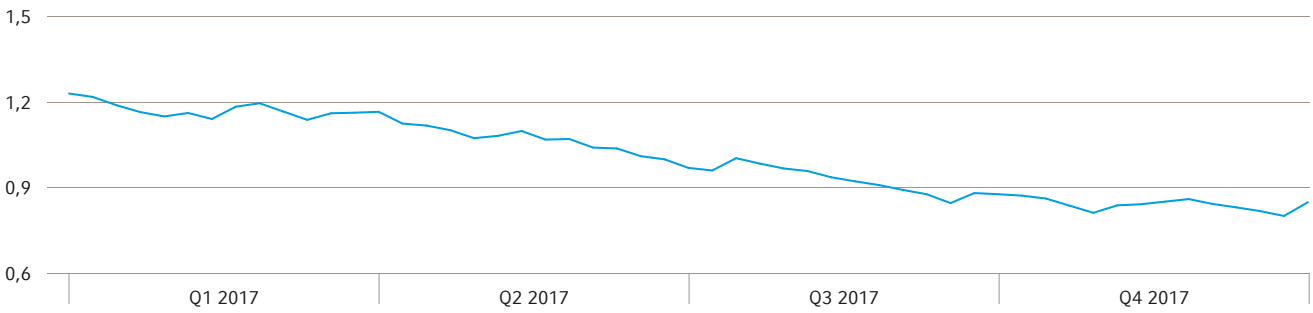
At no time were the escalation levels of the trigger system reached in this connection.

Utilisation of the trigger system **M 72**
in %



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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Counterparty default risks

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

Required risk capital[1] counterparty default risk **M 76**

in EUR million	31.12.2017	31.12.2016
Counterparty default risk	282.0	296.5

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

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

Gross written premium retained **M 77**

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

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

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

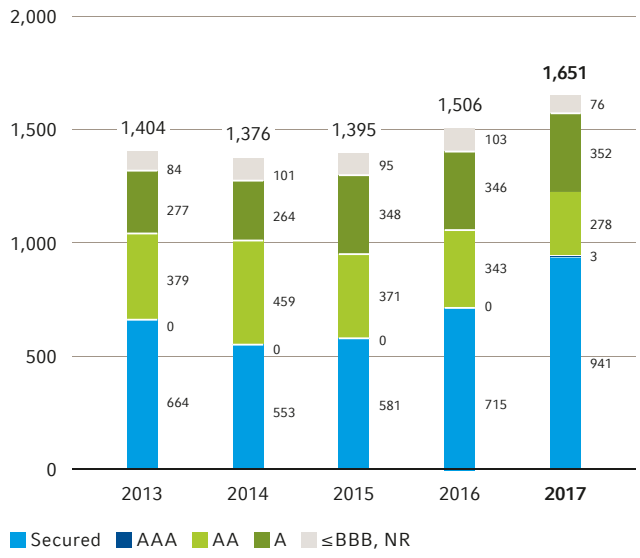
57.0% of our recoverables from reinsurance business are secured by deposits or letters of credit. For the majority of our retrocessionaires we also function as reinsurer, meaning that in most cases recoverables can potentially be set off against our own liabilities. In terms of the Hannover Re Group's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

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

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

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

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



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

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

Operational risks

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

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

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

in EUR million	31.12.2017	31.12.2016
Operational risk	637.0	503.9

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

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

Subcategories of operational risks

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

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

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

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

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

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

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

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

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

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

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

Other risks

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

Subcategories included under other risks

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

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

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

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

The liquidity risk refers to the risk of being unable to meet our financial obligations when they become due. The liquidity risk consists of the refinancing risk (necessary cash could not be obtained or could only be obtained at increased costs) and the market liquidity risk (financial market transactions could only be completed at a poorer price than expected due to a lack of market liquidity). Core elements of the liquidity management of our investments are, in the first place, management of the maturity structure of our investments on the basis of the planned payment profiles arising out of our technical liabilities and, secondly, regular liquidity planning as well as the asset

structure of the investments. Above and beyond the foreseeable payments, unexpected and exceptionally large payments may pose a threat to liquidity. In reinsurance business, however, significant events (major losses) are normally paid out after a lead time that can be reliably planned. As part of our liquidity management we have nevertheless defined asset holdings that have proven to be highly liquid – even in times of financial stress such as the 2008 financial crisis. Our holdings of unrestricted German, UK and US government bonds as well as cash during the year under review were larger than possible disbursements for assumed extreme events, which means that our liquidity is assured even in the unlikely case of financial crises coinciding with an extreme event that needs to be paid out quickly. The liquid asset reserve stood at EUR 5.1 billion as at the balance sheet date. In addition, we manage the liquidity of the portfolio by checking on each trading day the liquidity of the instruments contained therein. These measures serve to effectively reduce the liquidity risk.

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

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

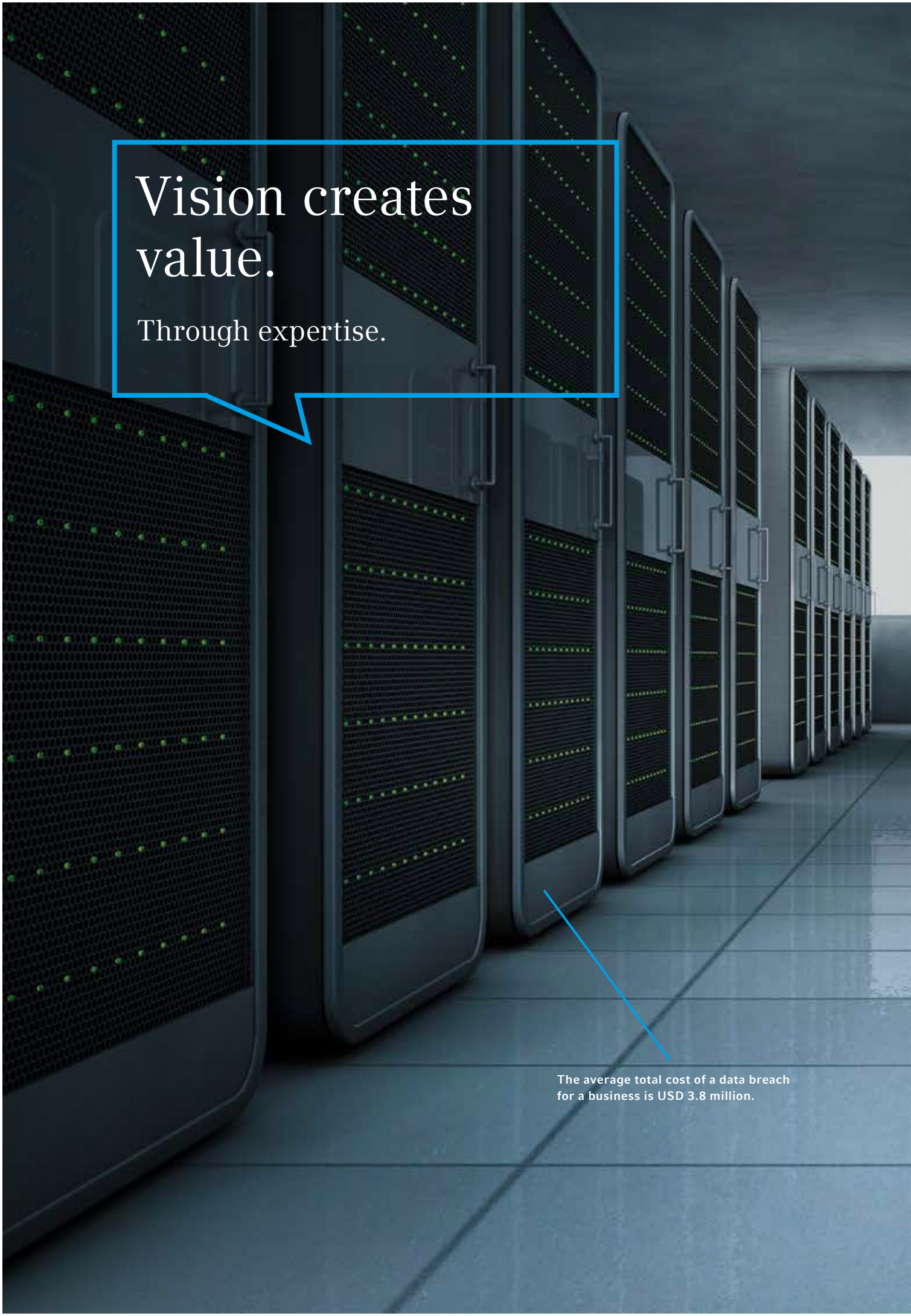
Opportunity report

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

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

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

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


Vision creates value.
Through expertise.
The average total cost of a data breach for a business is USD 3.8 million.


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

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

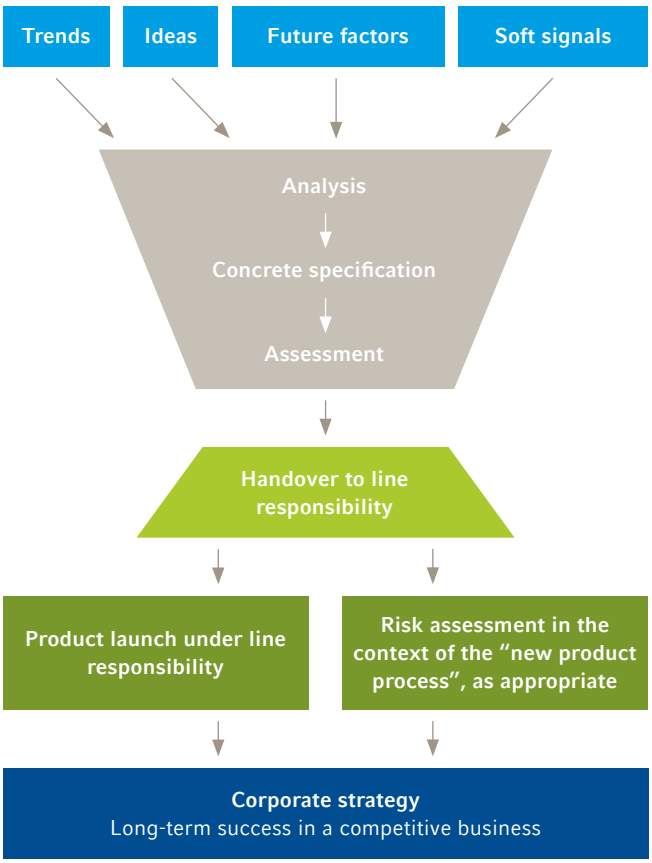
The networking of the innovative minds involved gives rise to close links with other projects, working groups and bodies, such as with the working group on "Emerging Risks und Scientific Affairs" in regard to emerging risks and opportunities (see page 100 et seq. "Other risks"). This working group carries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

Cyber risks

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

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

Opportunity management process **M 80**



Overall assessment by the Executive Board

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

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

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

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

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

Enterprise management

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

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

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

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

Corporate Governance

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Hannover, 7 November 2017

For the Executive Board, for the Supervisory Board

Further enterprise management principles of Hannover Re

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

Sustainability of enterprise management

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

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

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

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

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

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

Working practice of the Executive Board and Supervisory Board

The Executive Board and Supervisory Board of Hannover Rück SE work together on a trusting basis to manage and monitor the company and the Group as a whole. In accordance with the Rules of Procedure of the Executive Board, matters of fundamental importance require the consent of the Supervisory Board. The Supervisory Board is comprised of nine members. Six members are elected as shareholder representatives by the shareholders at the Annual General Meeting. The three seats held by employee representatives, which are currently allocated to Germany pursuant to Part III. § 13 (3) of the Agreement regarding the Participation of Employees in Hannover Rück SE of 23 January 2013, are elected in accordance with the provisions of the SE Participation Act (SEBG) by the responsible representative body (currently the joint Employee Council of Hannover Rück SE and E+S Rückversicherung AG). The Supervisory Board appoints the members of the Executive Board. Since members of the Supervisory Board cannot at the same time belong to the Executive Board, a high degree of

independence in the oversight of the Executive Board is thus already ensured by structural means. In addition, the Supervisory Board is kept informed on a regular and timely basis of the business development, the execution of strategic decisions, material risks and planning as well as relevant compliance issues. The Chairman of the Supervisory Board stays in regular contact with the Chairman of the Executive Board in order to discuss with him significant business occurrences. The composition of the Executive Board (including areas of responsibility) as well as of the Supervisory Board and its committees is set out on pages 6 et seq. and 261 respectively of the present Annual Report.

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

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

Working practice of the committees of the Supervisory Board

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

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

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

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

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

Compliance

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

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

Risk monitoring and steering

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

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

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

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

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

Remuneration report

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

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

The remuneration report is guided by the recommendations of the German Corporate Governance Code and contains information which forms part of the notes to the 2017 consolidated financial statement as required by IAS 24 "Related Party Disclosures". Under German commercial law, too, this information includes data specified as mandatory for the notes (§ 314 HGB) and the management report (§ 315 HGB). These details are discussed as a whole in this remuneration report and presented in summary form in the notes.

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

Remuneration of the Executive Board

Responsibility

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

Objective, structure and system of Executive Board remuneration

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

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

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

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

Measurement basis and payment procedures for fixed remuneration M81

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

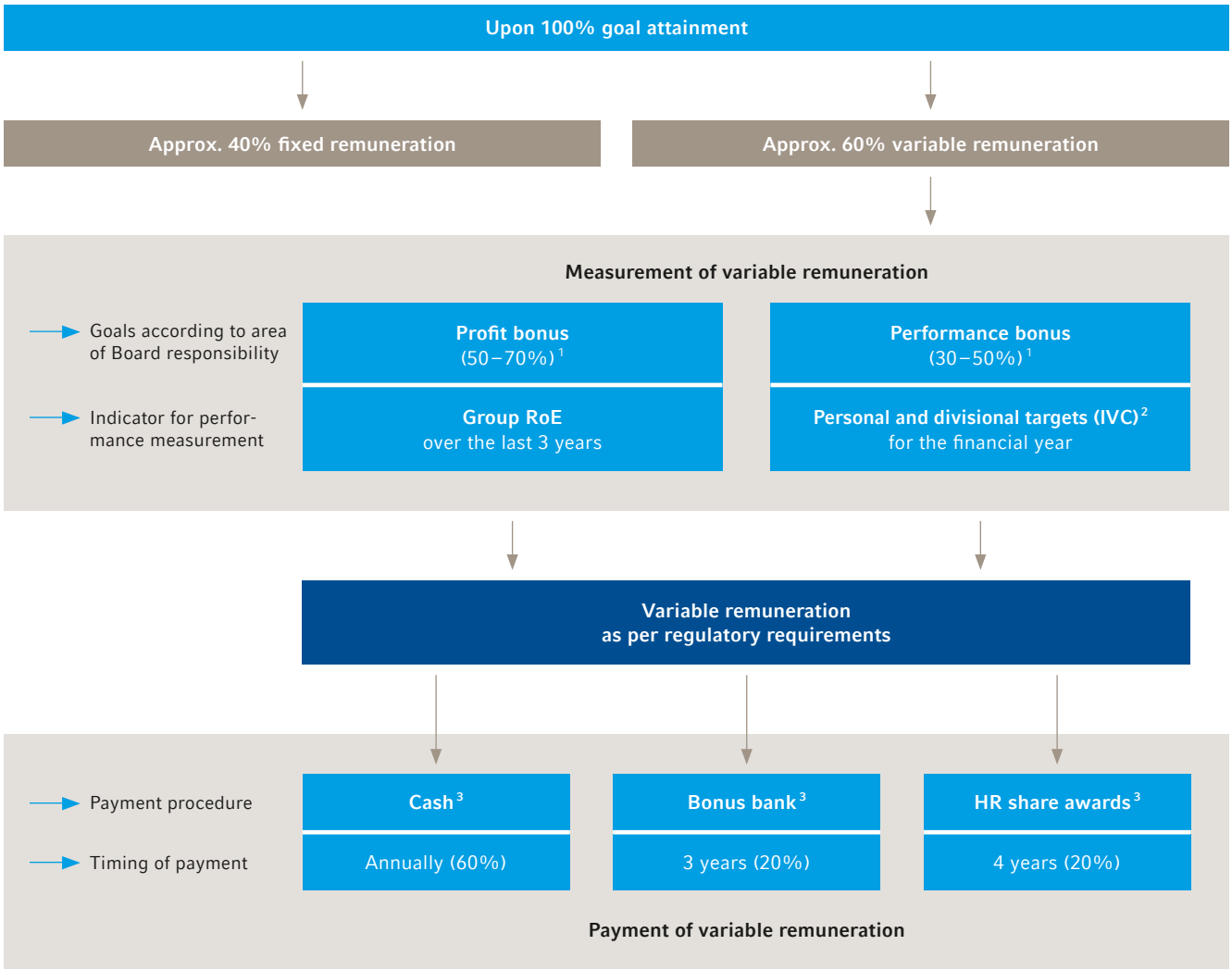
Variable remuneration (approx. 60% of total remuneration upon 100% goal attainment)

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

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

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

Overview of the composition of variable remuneration M 82



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

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

3 Split defined by legal minimum requirements

Measurement bases/conditions of payment for variable remuneration M83

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

Performance bonus
The performance bonus for the Chief Executive Officer and the Chief Financial Officer is arrived at from individual qualitative and, as appropriate, quantitative targets defined annually by the Supervisory Board that are to be accomplished in the subsequent year. For members of the Executive Board with responsibility for a certain division, the performance bonus consists in equal parts of the divisional bonus and the individual bonus.

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

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

Payment procedures for the total variable remuneration

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

Payment procedures for the total variable remuneration **M84**

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

Handling of payment of variable remuneration components in special cases

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

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

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

Variable remuneration under the old remuneration structure (until 2011)

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

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

Continued payment in case of disability

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

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

Other information

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

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

Amount of remuneration received by the Executive Board

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

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

Total remuneration of the active members of the Executive Board pursuant to DRS 17 (modified in 2010) **M85**

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

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

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

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

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

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

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

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

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

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

Total expense for share-based remuneration of the Executive Board **M86**

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

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

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

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

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

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

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

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

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

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

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

German Corporate Governance Code, Item 4.2.5 Para. 3 – Table 2 (cash allocations in 2016 and 2017) M88

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

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

[1] This refers in each case to payment of the variable remuneration for the previous year. Remuneration for seats with Group bodies that is counted towards the variable remuneration accrues in the year of occurrence. The company's Supervisory Board only decides on the final amount paid out for the 2017 financial year after the remuneration report has been drawn up.

[2] In the case of Mr. Althoff the payment of share awards in 2012 relates to his work as a senior executive before his appointment as a member of the Executive Board.

[3] Stock appreciation rights were awarded in 2010, exercise option at the discretion of the Executive Board until 31 December 2020 in the following tranches: 60% from 2015, 80% from 2016, 100% from 2017 onwards.

[4] Stock appreciation rights were awarded to Mr. Althoff in 2011 as a senior executive, exercise option discretionary until 31 December 2021 in the following tranches: 60% from 2016, 80% from 2017, 100% from 2018 onwards

[5] For details of the service cost see the table "Pension commitments" on page 127.
The service costs for Mr. Chèvre and Mr. Miller refer to the funding contribution for 2016 and for the first time to the personnel expense for 2017.

Claude Chèvre Board member with divisional responsibility		Jürgen Gräber Board member with divisional responsibility Coordinator of worldwide property & casualty reinsurance	
2016	2017	2016	2017
380.0	380.0	445.1	463.4
13.6	1.8	7.1	15.0
393.6	**381.8**	**452.2**	**478.4**
463.8	474.0	534.6	519.0
173.8	346.3	676.0	554.1
117.3	113.5	159.5	148.3
56.5	232.8	427.3	316.6
0.0	0.0	89.2	89.2
0.0	0.0	0.0	0.0
1,031.2	**1,202.1**	**1,662.8**	**1,551.5**
150.1	140.2	95.1	109.6
1,181.3	1,342.3	1,757.9	1,661.1

Roland Vogel Chief Financial Officer	
2016	2017
422.9	450.7
17.0	16.5
439.9	**467.2**
430.1	421.6
560.3	415.6
126.0	120.8
389.7	250.2
44.6	44.6
0.0	0.0
1,430.3	**1,304.4**
53.8	53.8
1,484.1	1,358.2

Sideline activities of the members of the Executive Board

The members of the Executive Board require the approval of the Supervisory Board to take on sideline activities. This ensures that neither the remuneration granted nor the time required for this activity can create a conflict with their responsibilities on the Executive Board. If the sideline activities involve seats on supervisory boards or comparable control boards, these are listed and published in the Annual Report of Hannover Rück SE. The remuneration received for such seats at Group companies and other board functions is deducted when calculating the variable bonus and shown separately in the table of total remuneration.

Retirement provision

Defined benefit pension commitment (appointment before 2009)

The contracts of members of the Executive Board first appointed prior to 2009 contain commitments to an annual retirement pension calculated as a percentage of the pensionable fixed annual remuneration (defined benefit). The target pension is at most 50% of the monthly fixed salary payable on reaching the age of 65. A non-pensionable fixed remuneration component was introduced in conjunction with the remuneration structure applicable from 2011 onwards.

Defined contribution pension commitment (appointment from 2009 onwards)

The commitments given to members of the Executive Board from 2009 onwards are based on a defined contribution scheme.

A Board member who has reached the age of 65 and left the company's employment receives a life-long retirement pension. The amount of the monthly retirement pension is calculated according to the reference date age (year of the reference date less year of birth) and the funding contribution on the reference date. The annual funding contribution for these contracts is paid by the company in the amount of a contractually specified percentage of the pensionable income (fixed annual remuneration as at the contractually specified reference date).

In both contract variants (i. e. defined benefit and defined contribution) other income received while drawing the retirement pension is taken into account pro rata or in its entirety under certain circumstances (e. g. in the event of incapacity for work or termination of the service contract before reaching the age of 65).

Provision for surviving dependants

If the Board member dies during the period of the service contract, the surviving spouse – or alternatively the eligible children – shall be entitled to continued payment of the fixed monthly salary for the month in which the Board member dies and the six months thereafter, at most until termination of the service contract. If the member of the Executive Board dies after pension payments begin, the surviving spouse and alternatively the dependent children shall receive continued payment of the retirement pension for the month of death and the following six months.

The widow's pension amounts to 60% of the retirement pay that the Board member received or would have received if he had been incapacitated for work at the time of his death.

An orphan's pension shall be granted in the amount of 15% – in the case of full orphans 25% (final-salary pension commitment) or 30% (contribution-based pension commitment) – of the retirement pay that the Board member received or would have received on the day of his death if the pensionable event had occurred owing to a permanent incapacity for work.

Adjustments

The following parameters are used for adjustments to retirement, widow's and orphan's benefits: the price index for the cost of living of all private households in Germany (contracts from 2001 onwards) or the price index for the cost of living of four-person households of civil servants and higher-income salaried employees (contracts from 1997 to 2000).

Current pensions based on the commitments given from 2009 onwards (defined contribution commitment) are increased annually by at least 1% of their most recent (gross) amount.

Pension payments to former members of the Executive Board

The pension payments to former members of the Executive Board and their surviving dependants, for whom 17 (16) pension commitments existed, totalled EUR 1.6 million (EUR 1.6 million) in the year under review. The projected benefit obligation of the pension commitments to former members of the Executive Board amounted to altogether EUR 24.7 million (EUR 25.3 million).

Pension commitments M 89

Name in EUR thousand	Financial year	Attainable annual pension (age 65)	DBO 31.12.	Personnel expense	Annual funding contribution[1]	Premium
Ulrich Wallin	**2017**	**257.5**	**5,830.6**	**163.2**	**–**	**–**
	2016	229.1	5,370.1	144.2	–	–
Sven Althoff[2, 3]	**2017**	**92.5**	**1,222.4**	**46.9**	**25%**	**70.0**
	2016	92.2	1,185.3	37.4	25%	70.0
Claude Chèvre[4]	**2017**	**118.7**	**868.8**	**140.2**	**39.5%**	**150.1**
	2016	118.4	731.7	–	39.5%	150.1
Jürgen Gräber	**2017**	**182.5**	**3,840.2**	**109.6**	**–**	**–**
	2016	182.5	3,731.1	95.1	–	–
Dr. Klaus Miller[4]	**2017**	**55.0**	**652.2**	**86.1**	**25%**	**93.5**
	2016	53.3	557.8	–	25%	89.0
Dr. Michael Pickel	**2017**	**160.0**	**2,712.5**	**152.8**	**–**	**–**
	2016	135.5	2,509.2	123.4	–	–
Roland Vogel[2, 5]	**2017**	**96.9**	**1,674.9**	**53.8**	**25%**	**110.4**
	2016	94.3	1,623.5	53.8	25%	105.7
Total	**2017**	**963.1**	**16,801.6**	**752.6**		**424.0**
Total	2016	905.3	15,708.7	453.9		414.8

1 Percentage of pensionable income (fixed annual remuneration as at the contractually specified reference date).
2 Mr. Althoff and Mr. Vogel were first granted a pension commitment prior to 2001 on the basis of their service to the company prior to their appointment to the Executive Board; the earned portion of the commitment from the Unterstützungskasse is therefore established as a proportion (in the ratio [currently attained service years since entry] / [attainable service years from entry to exit age]) of the final benefit. Measurement under IAS 19 consequently uses the defined benefit method. The values shown include the entitlements prior to appointment to the Executive Board, which in accordance with a resolution of the company's Supervisory Board shall remain unaffected by the pension commitment as a member of the Executive Board.
3 The guaranteed interest rate is 3.25%.
4 Measured under IAS 19 as a defined benefit commitment for the first time as at 31 December 2016. The guaranteed interest rate is 2.25%.
5 The guaranteed interest rate under the basic insurance is 3.25%; the interest rate for the bonus insurance is 1.25%.

Remuneration of the Supervisory Board

The remuneration of the Supervisory Board is determined by the Annual General Meeting of Hannover Rück SE and regulated by the Articles of Association.

In accordance with § 14 of the Articles of Association as amended on 30 May 2016 and the resolution of the Annual General Meeting on 7 May 2013, the members of the Supervisory Board receive fixed annual remuneration of EUR 30,000 per member in addition to reimbursement of their expenses. Furthermore, each member of the Supervisory Board receives variable remuneration measured according to the average earnings per share (EPS) of the company over the past three financial years preceding the Annual General Meeting at which the actions of the Supervisory Board for the last of these three years are ratified. The variable remuneration amounts to EUR 330 for each EUR 0.10 average earnings per share (EPS) of the company. The measurement of this performance-based remuneration component according to the average earnings per share of the last three financial years ensures that the variable remuneration is geared to sustainable corporate development. The variable remuneration is limited to an annual maximum of EUR 30,000. The Chairman of the Supervisory Board receives twice the aforementioned remuneration amounts and the Deputy Chairman of the Supervisory Board receives one-and-a-half times the said amounts.

In addition, the members of the Finance and Audit Committee formed by the Supervisory Board receive remuneration of EUR 15,000 for their committee work and the members of the Standing Committee formed by the Supervisory Board receive remuneration of EUR 7,500. In this case, too, the Chairman of the Committee receives twice and the Deputy Chairman one-and-a-half times the stated amounts. No remuneration is envisaged for the Nomination Committee.

Members who have only belonged to the Supervisory Board or one of its Committees for part of the financial year receive the remuneration pro rata temporis.

All the members of the Supervisory Board receive an attendance allowance of EUR 1,000 for their participation in each meeting of the Supervisory Board and the Committees in addition to the aforementioned remuneration. If a meeting of the Supervisory Board and one or more committee meetings fall on the same day, the attendance allowance for this day is only paid once in total.

Individual remuneration received by the members of the Supervisory Board M 90

Name in EUR thousand [1]	Function	Type of remuneration	2017	2016
Herbert K. Haas [2]	Chairman of the • Supervisory Board • Standing Committee • Finance and Audit Committee • Nomination Committee	Fixed remuneration	100.0	100.0
		Variable remuneration	100.7	92.5
		Remuneration for committee work	85.0	85.0
		Attendance allowances	14.0	18.0
			299.7	**295.5**
Dr. Klaus Sturany	Deputy Chairman of the Supervisory Board Member of the Standing Committee	Fixed remuneration	45.0	45.0
		Variable remuneration	45.5	44.0
		Remuneration for committee work	7.5	7.5
		Attendance allowances	6.0	5.0
			104.0	**101.5**
Wolf-Dieter Baumgartl [2]	Member of the • Supervisory Board • Standing Committee • Finance and Audit Committee • Nomination Committee	Fixed remuneration	33.5	50.0
		Variable remuneration	33.8	46.2
		Remuneration for committee work	22.5	22.5
		Attendance allowances	9.0	14.0
			98.8	**132.7**
Frauke Heitmüller [3]	Member of the Supervisory Board	Fixed remuneration	30.0	30.0
		Variable remuneration	30.3	29.4
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			64.3	**63.4**
Otto Müller [3]	Member of the Supervisory Board	Fixed remuneration	30.0	30.0
		Variable remuneration	30.3	29.4
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			64.3	**63.4**
Dr. Andrea Pollak	Member of the • Supervisory Board • Nomination Committee	Fixed remuneration	30.0	30.0
		Variable remuneration	30.3	29.4
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			64.3	**63.4**
Dr. Immo Querner [2]	Member of the Supervisory Board	Fixed remuneration	50.0	50.0
		Variable remuneration	50.3	46.2
		Remuneration for committee work	10.0	10.0
		Attendance allowances	7.0	7.0
			117.3	**113.2**

Name in EUR thousand[1]	Function	Type of remuneration	2017	2016
Dr. Erhard Schipporeit	Member of the • Supervisory Board • Finance and Audit Committee	Fixed remuneration	30.0	30.0
		Variable remuneration	30.3	29.4
		Remuneration for committee work	15.0	15.0
		Attendance allowances	7.0	9.0
			82.3	**83.4**
Maike Sielaff[3]	Member of the Supervisory Board	Fixed remuneration	30.0	30.0
		Variable remuneration	30.3	29.4
		Remuneration for committee work	–	–
		Attendance allowances	4.0	4.0
			64.3	**63.4**
Total			**959.3**	**979.9**

1 Amounts excluding reimbursed VAT
2 Including supervisory board remuneration and remuneration for committee work as well as advisory board remuneration received from entities affiliated with the company
3 Employee representatives

The individualised presentation of the remuneration shows the expense charged to the financial year in question. Since the remuneration for a financial year becomes due at the end of the Annual General Meeting that ratifies the acts of the Supervisory Board for the financial year, the relevant reserve allocations for the variable remuneration are recognised allowing for any fractional amounts. Value-added tax payable upon the remuneration is reimbursed by the company.

In the year under review no payments or benefits were granted to members of the Supervisory Board in return for services provided individually outside the committee work described above, including for example consulting or mediation services, with the exception of the remuneration paid to employee representatives on the basis of their employment contracts.

Loans to members of the management boards and contingent liabilities

In order to avoid potential conflicts of interest, Hannover Rück SE or its subsidiaries may only grant loans to members of the Executive Board or Supervisory Board or their dependants with the approval of the Supervisory Board.

In 2017 no loan relationships existed with members of the Executive Board or Supervisory Board of Hannover Rück SE, nor did the company enter into any contingent liabilities for members of the management boards.

Securities transactions and shareholdings (directors' dealings)

Dealings in shares, options and derivatives of Hannover Rück SE effected by members of the Executive Board or Supervisory Board of Hannover Re or by other persons with managerial functions who regularly have access to insider information concerning the company and who are authorised to take major business decisions – as well as such dealings conducted by certain persons closely related to the aforementioned individuals – in excess of EUR 5,000 are to be reported pursuant to § 15a Securities Trading Act (WpHG). The reportable transactions listed in the following table took place in the 2017 financial year.

Members of the Supervisory Board and Executive Board of Hannover Rück SE as well as their spouses or registered partners and first-degree relatives hold less than 1.0% of the issued shares. The total holding as at 31 December 2017 amounted to 0.004% (0.004%) of the issued shares, i. e. 4,681 (4,625) shares.

Securities transactions M 91

Name	Type of transaction	Type of security	ISIN	Transaction date	Number of securities	Price in EUR	Total volume in EUR
Herbert K. Haas	Sale	Share	DE0008402215	22.3.2017	1,415	106.20	150,018.30
Herbert K. Haas	Purchase	Share	DE0008402215	22.3.2017	1,415	106.30	150,414.50

Remuneration of staff and senior executives

Structure and system

The remuneration scheme for senior executives below the Executive Board (management levels 2 and 3) and for key function holders in Germany belonging as a matter of principle to the ranks of senior executives consists of a fixed annual salary and a system of variable remuneration. This is comprised of a short-term variable remuneration component, the annual cash bonus, and a long-term share-based remuneration component, the Share Award Plan. This variable remuneration has been uniformly applied worldwide since 1 January 2012 to all Group senior executives (i. e. Managing Directors, Directors and General Managers). As part of the reorientation of the remuneration system for senior executives the Share Award Plan of the Executive Board was consciously extended to include management levels 2 and 3. Given that at the same time the stock appreciation rights plan for senior executives was cancelled with effect from the 2012 allocation year, this means that a uniform share-based remuneration component has been maintained for the Executive Board and senior executives alike.

Members of staff on the levels of Chief Manager, Senior Manager and Manager are also able to participate in a variable remuneration system through the Group Performance Bonus (GPB). The Group Performance Bonus (GPB) is a remuneration model launched in 2004 that is linked to the success of the company. This tool is geared to the minimum return on equity of 750 basis points above the risk-free interest rate and the return on equity actually generated. For those participating in the GPB 14.15 monthly salary payments are guaranteed; a maximum of 16.7 salary payments is attainable.

The group of participants and the total number of eligible participants in the variable remuneration system of Hannover Re are set out in the following table.

Measurement of variable remuneration for senior executives

The measurement of the variable remuneration is based on three elements: Group net income, targets in the Property & Casualty and Life & Health business groups and individual targets. The weighting of the elements is dependent upon whether responsibility is carried in a treaty/regional department or in a service department. In the treaty/regional departments the measurement of the variable remuneration is based on weightings of 20% for Group net income, 40% for goal attainment in the respective Property & Casualty or Life & Health business group and 40% for individual goal attainment. In service departments the variable remuneration is based on Group net income and individual targets with a corresponding weighting of 40% and 60%. The degree of goal attainment is defined for both the Group net income and the business groups. Individual targets and the degree of goal attainment are agreed between the senior executive and their supervisor.

The Group net income is measured by the three-year average return on equity (RoE) of the Hannover Re Group above the risk-free interest rate. Goal attainment is calculated as follows: for each individual financial year of the last three financial years it is calculated by how many percentage points the RoE of the Hannover Re Group exceeds the risk-free interest rate. The average of these three differences determines the three-year average RoE above the risk-free interest rate. The risk-free interest rate is the average market interest rate over the past five years for 10-year German government bonds.

If the three-year average RoE above the risk-free interest rate reaches the expected minimum return on equity of 750 basis points, goal attainment stands at 85%. Goal attainment of 100% is recorded at 882 basis points. The maximum possible goal attainment is 200%. A lower limit is placed on goal attainment of -50% (penalty) for management level 2 (Managing Director) and 0% for management level 3 (Director and General Manager).

Group of participants and total number of eligible participants in variable remuneration systems **M92**
Valid: 31 December 2017

Participants		Variable remuneration system	Number of eligible participants in the variable remuneration system
Managing Director	Management level 2	Cash bonus and Share Award Plan	**Hannover Re Group** All 160 Group senior executives worldwide receive a cash bonus upon corresponding goal attainment and participate in the Share Award Plan.
Director	Management level 3		
General Manager			
Chief Manager		Group Performance Bonus (GPB)	**Head office Hannover** 754 staff (excl. seconded employees) out of the altogether 1,385 at Hannover head office (incl. 91 senior executives) are GPB-eligible.
Senior Manager			
Manager			

The measurement of the business group targets – which in the case of the treaty/regional departments accounts for 40% of overall goal attainment – is geared to the economic value created. The Excess Return on Capital Allocated (xRoCA) of the business group encompassing the respective area of responsibility, namely Property & Casualty reinsurance or Life & Health reinsurance, is therefore taken as a one-year measurement basis. The xRoCA describes the IVC in relation to the allocated capital and shows the relative excess return generated above and beyond the weighted cost of capital. Goal attainment of 100% exists if the xRoCA in Property & Casualty reinsurance reaches 2% and the xRoCA in Life & Health reinsurance reaches 3%. Negative performance contributions are excluded; the minimum goal attainment is 0%. The maximum possible goal attainment is 150%.

Individual targets are agreed and measured for a period of one year. The degree of goal attainment is between 0% and 100%.

Amount and payment of variable remuneration for senior executives

The overall degree of goal attainment determines the amount of variable remuneration including share awards. On management level 2 (Managing Director) 60% of the variable remuneration is paid out annually in cash and 40% is granted in the form of share awards. On management level 3 (Director and General Manager) the variable remuneration is split into 65% cash payment and 35% granted as share awards.

On management level 3 (Director and General Manager) the minimum variable remuneration amounts to EUR 0 on the premise that the degree of attainment for all goals is 0%. For management level 2 (Managing Director) in treaty/regional departments the minimum limit for the variable remuneration is set at -10% if the degree of goal attainment for Group net income is -50% while at the same time goal attainment of 0% is determined for the divisional targets and individual targets. For management level 2 (Managing Director) in service departments -20% of the variable remuneration is possible as the lower limit, if the degree of goal attainment for Group net income is -50% and at the same time goal attainment of 0% is determined for the individual targets.

In view of the fact that outperformance of up to 200% is possible for Group net income and up to 150% for business group targets, a maximum total degree of goal attainment of 140% can be attained in both treaty/regional departments and service departments. Given outperformance of all targets, a maximum of 140% of the variable remuneration can therefore be attained on management levels 2 and 3.

Allocation and payment of share awards to senior executives

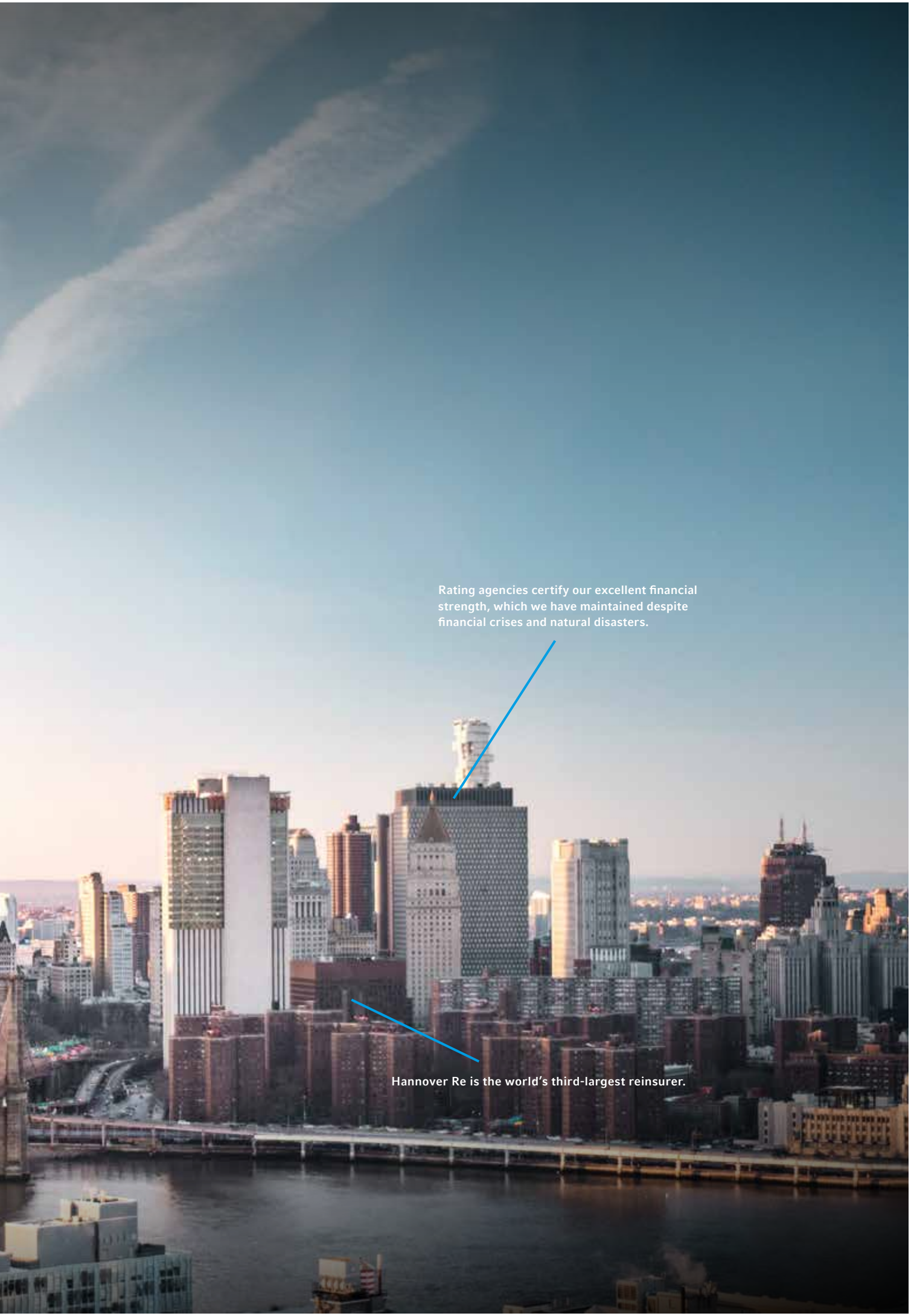
The total number of share awards allocated is determined according to the value per share of Hannover Re. This value is arrived at from the average of the closing prices of the shares in a period extending from 20 trading days before to 10 trading days after the meeting of the Supervisory Board at which the consolidated financial statement is approved. The number of share awards is established by dividing the specified portion of the total bonus (40% or 35%) by the value per share, rounded up to the next full share.

Following expiry of a vesting period of four years the value of one Hannover Re share calculated at the disbursement date is paid out for each share award. The value of the Hannover Re share is again determined from the average of the closing prices of the shares in a period from 20 trading days before to 10 trading days after the meeting of the Supervisory Board that approves the consolidated financial statement. In addition, a sum in the amount of the dividend is paid out for each share award, insofar as dividends were distributed to shareholders. The level of the dividend payment is the sum total of all dividends per share paid out during the period of the share awards multiplied by the number of share awards.

In the case of the allocation and payment of share awards to participants in the Share Award Plan who are located abroad, the rate of exchange used to convert the average share price is the average of the relevant exchange rate in a period from 20 trading days before to 10 trading days after the meeting of the Supervisory Board that approves the consolidated financial statement. For payment of the dividend to participants in the Share Award Plan who are located abroad, the rate of exchange used to convert the dividend per share is the average of the relevant exchange rate in a period from 20 trading days before to 10 trading days after the Annual General Meeting that approves the dividend payment for the financial year just ended.

The cash bonus for the 2016 financial year was paid out in June 2017. The share awards for the 2016 financial year were also allocated in June 2017; they will be paid out in the spring of 2021 including dividends paid for the 2016, 2017, 2018 and 2019 financial years.


Vision creates value.
Through financial strength.
Global reinsurance capital of around USD 440 billion provides long-term protection for investments and assets.


Rating agencies certify our excellent financial strength, which we have maintained despite financial crises and natural disasters.
Hannover Re is the world's third-largest reinsurer.

Outlook

Forecast

- Successful treaty renewals in property and casualty reinsurance as at 1 January 2018
- Stable premium volume in life and health reinsurance
- Return on investment target of ≥ 2.7% for assets under own management
- Group net income expected to exceed EUR 1 billion

Economic developments

Global economy

The pace of the upward trend that can now be observed in virtually all large national economies will show another slight increase overall in the current year. In its year-end forecast the Kiel Institute for the World Economy expects global output to grow by 0.1 percentage points in 2018 to 3.9%. The principal reason why stronger growth is not anticipated is the already high level of production capacity utilisation.

The upturn in advanced economies, which include the United States, Japan and Germany as well as 30 other economically developed countries, will lose scarcely any impetus: after 2.4% in the financial year just ended, growth in the current year is expected to reach 2.3%. Economists expect to see a continuation of expansionary monetary policy, albeit on a slightly more muted scale, increased stimuli from the financial policy side and a fresh resurgence in demand from developing and emerging nations.

The world economy is again faced with numerous political risks in the current year. While the widely held fear that the new US administration might appreciably harm global economic growth through a pivot towards protectionism has so far failed to materialise, the scepticism expressed by the US government towards multilateral agreements could produce unexpected outcomes at any time. In Europe, the current efforts to secure independence for Catalonia clearly highlight the considerable fragility that still permeates the European Union. Risks associated with monetary policy are also taking on greater prominence again. It is entirely possible, for example, that the approaching normalisation of monetary policy could trigger sudden uncertainty on capital markets, triggering episodic corrections.

Growth in gross domestic product (GDP) M93

in %	2017 (forecast from previous year)	2017 (provisional calculation)	2018 (forecast)
Economic areas			
World economy	3.6	3.8	3.9
Eurozone	1.7	2.4	2.3
Selected countries			
United States	2.5	2.3	2.5
China	6.4	6.8	6.4
India	6.8	6.4	7.3
Japan	1.2	1.8	1.5
Germany	1.7	2.3	2.5

Source: Kiel Institute for the World economy; figures for Germany are calendar-adjusted.

United States

After the US economy gathered more momentum than anticipated in 2017, the Kiel-based experts expect the growth in output to accelerate by a further 0.2 percentage points to 2.5% on the back of the robust state of the economy. Key drivers here are sustained positive consumer sentiment, rising disposable incomes and swelling corporate profits. The latter will be further boosted by the corporate tax reform passed in December, hence leaving room for the forecast to be revised upwards. With financing conditions still favourable, capital spending is also likely to be highly stimulated.

Europe

In the Eurozone, too, the upturn in cyclical activity is set to continue. Industrial output is high and new orders in the manufacturing sector are very brisk, prompting the experts at the Kiel Institute for the World Economy to forecast expansion of 2.3% for 2018. France should be able to modestly extend its growth (+2.0%), with expansion in Spain set to continue at a slower pace (+2.6%). In Italy the balance of power will probably remain problematic even after the parliamentary elections scheduled for March 2018. This also dilutes the potential for economic stimuli, and growth is therefore likely to stay stubbornly low (+1.5%). The recovery in Greece is expected to continue (+2.1%).

In the United Kingdom the uncertainties surrounding Brexit continue to prove a drag on growth, which will likely show another modest decline to 1.4% with a sustained downward tendency. Despite intensive talks over the past year, it was still unclear coming into this year how a smooth transition to a new economic and political framework could be structured for both sides.

With the upswing set to continue, unemployment in the Eurozone is forecast to decrease further from 9.1% in the previous year to 8.5% in the current year. Given the increasingly high utilisation of production capacities, core inflation in the Eurozone will probably see a further gradual increase. The overall rise in consumer prices will, however, likely be on a par with the previous year at 1.7% because oil price effects will work against inflation.

Germany

The Kiel-based economists expect the positive trend in Germany to see a further slight improvement in 2018, hence boosting growth in gross domestic product by two-tenths of a percentage point to 2.5%. With utilisation levels already far above normal, production capacities are close to their limit. Supported by income gains, private consumption will keep on rising, while the construction boom is set to continue in view of unchanged favourable financing conditions. Corporate investments will be another growth driver, as companies increasingly cast aside their reluctance to spend in view of high capacity utilisation and excellent business prospects.

Exports will likely receive another boost from the surging global economy and rise by 5.0% (previous year: 4.3%). Most notably, exports of goods to the Eurozone and Asia will be further expanded. The import side will gain added impetus from the lively state of the domestic economy, with the value of imported goods forecast to grow by 5.7% in the current year (4.8%).

China, India, Japan

The Kiel Institute for the World Economy expects growth in China to experience a further slowdown in 2018, declining to 6.4%. Whereas in recent years the government has been able to stabilise the economy through a more expansive fiscal and monetary policy, it is now dialling this back in favour of qualitative targets. With this in mind, it is focused on stemming rising indebtedness and on the overdue structural transformation towards a service-oriented economy with growth that is socially and environmentally more sustainable.

Following the successful implementation of reforms, India's economy will be able to pick up the pace of expansion again and should grow by 7.3% in 2018. Measured by the size of its economy, India will thus move past the United Kingdom and France to become the fifth-largest national economy in the world.

The pace of growth in Japan, on the other hand, will likely ease somewhat in 2018 to 1.5%, with a further downward trend. While the country is enjoying its longest growth stretch in more than 16 years, this is being driven primarily by strong export demand. Domestic demand, by contrast, remains soft.

Capital markets

In 2018 financial markets are again likely to see promising growth opportunities but also an abundance of volatility and uncertainty. Most significantly, geopolitical risks and protectionism have continued potential for adverse repercussions in some areas. Attention will be focused on two main arenas: firstly, Europe, where it is still impossible to foresee how the Brexit vote will be translated into political and economic reality and, secondly, the United States, where moves by political actors are difficult to predict and may disturb the existing balance due to their impact on global politics.

The basic starting point for the world economy should nevertheless be assessed as positive, since none of the major world economies is in or entering retrocession; instead, they moving in relative lockstep on an expansionary course for the first time in quite a while. The Eurozone is enjoying a stable upturn

and benefiting from low interest rates and what is still a comparatively weak euro. The US economy can profit from a historic package of tax reforms, although it remains to be seen whether this is reflected in real economic factors since many business actors likely realise that low taxes today can mean higher charges down the road. Increased commodity prices should, however, assist the economic recovery in numerous emerging markets.

With its announcement that it would scale back its monthly corporate bond purchases but at the same time extend the programme until at least September 2018 against the backdrop of a historically low reference rate, the ECB is standing by its policy of ultra-low interest rates. A change in the key interest rate cannot be expected until well after the bond purchases have stopped. This is intended to support business activity in the Eurozone and bring inflation back towards the ECB's 2% target. More and more voices are, however, drawing attention to the growing dangers of this policy for business and the markets.

In contrast, the US Federal Reserve will progressively turn away from an expansionary policy in response to the economic upswing in the United States and will press ahead with the cycle of rate hikes. This may also be reflected in a strengthening US dollar. Observers are keenly waiting to see how the upcoming personnel changes at the Fed will affect its policy. The new faces, just like the old ones, will face the challenge of keeping inflation under control without jeopardising domestic consumption as well as a need to combat systemic risks with an appropriate overall policy framework.

Central banks will therefore be compelled to strike a new balance, which may lead to elevated volatility. In this context, the goal will still be to put in place a foundation on which national economies can be less dependent on the previous extremely relaxed monetary policy.

International bond markets will thus once again see largely below-average and continued divergent interest rate levels in 2018. In the relevant currency areas for our company we expect slightly upsloping yield curves. For the most part, government bonds with higher risk premiums issued by countries of the European Monetary Union that have been the focus of so much attention of late should continue to stabilise. The prevailing credit cycle in the United States, which has proven its durability, and the stabilisation of emerging markets will continue to shape the economic environment. This may potentially be positively influenced by the ending of austerity drives undertaken by several industrial nations and by a worldwide upswing in private consumption.

Compared to the soaring valuations of US equities, which delivered another exceptional performance in 2017, equities in Europe and emerging markets are lagging somewhat behind the cycle and some markets are even seeing bubble tendencies. These could deflate quickly and trigger turmoil on other markets too. Virtually historically low risk premiums on corporate and financial bonds also suggest that a great deal of positive momentum has already been priced in and the speculative scope for further price jumps on the scale seen in recent years appears rather limited, given that central banks are now stepping away from providing markets with an unconditional supply of liquidity. The extent to which effects associated with expectations placed on Donald Trump's economic policy – which have already been factored into valuations – may be changed by adverse geopolitical developments or restrictive trade measures remains one of the elements of uncertainty for 2018, the implications of which will not leave Europe and emerging economies untouched. After all, the question arises as to who else can invest if everyone is already appropriately invested and liquidity is tending to tighten. On the other hand, we anticipate a thoroughly positive scenario in the emerging economies, which for the most part have proven astonishingly stable in coping with volatility associated with uncertainties in China and the oil price distortions of the recent past. 2018 will thus again be distinguished by an unusual combination of geopolitical and monetary policy uncertainty as well as the risk of bubbles forming in certain asset classes and markets. All in all, it should be noted that the strongly liquidity-driven search by investors for assets offering high returns is leading to inflation in asset prices which in some areas now makes the risk/reward ratio look rather critical. To this extent, increased attention must be paid to investment decisions. Consequently, broad diversification within the investment portfolio will continue to be of considerable importance in 2018.

Insurance industry

Even though the insurance industry still finds itself facing numerous – in some cases considerable – challenges in 2018, the mood throughout the sector is gradually lifting. The reasons here include the generally good overall economic sentiment and the positive approach taken by the industry in addressing the demands of change. This includes the fact that many companies are now actively partnering with insurtechs, as new market entrants, in their business models and finding numerous points of connection for developing new products.

Two key areas drawing attention continue to be the low interest rate environment and increasingly exacting regulatory requirements: the decisions taken by the ECB in the autumn of 2017 indicate that the Eurozone will not see any quick turning away from the extremely low level of interest rates. Life insurers are particularly hard hit, having no choice but to adjust their business models. The Federal Reserve in the United States, on the other hand, continues to chart a course towards higher interest rates in 2018. Going forward, there is at least the prospect that this will also lead to a normalisation of interest rates in Europe. On the regulatory side the industry is currently grappling with implementation of the EU Insurance Distribution Directive (IDD) and the EU General Data Protection Regulation (GDPR).

The industry also remains intensely preoccupied with changes in customer expectations. Against a backdrop of advancing digitalisation, customer habits are becoming increasingly unpredictable. Expectations are also shifting significantly when it comes to benefits and services. Insurers are responding by enhancing the quality of their services, stepping up customer contact management and developing new products that live up to the changed requirements.

The pressure to act on cutting costs remains considerable, prompting companies to accelerate the drive towards digitalisation of their business processes. They are expanding automation of their back office processes and enhancing the flexibility of their IT structures, at the same time opening up further scope to improve customer care. The consolidation process that has already been ongoing in the reinsurance sector for a number of years will continue in 2018. Surplus capacities are thereby eliminated, efficiency increased and operational rigour in the process of transformation maintained on a high level.

Reinsurers are continuing to shift their focus towards the quality of the solutions that they offer. This move is also prompted by the demand side, since their insurance partners are increasingly calling for bespoke solutions. Against this backdrop insurance products are created that actively support their partners' strategic objectives and growth targets.

The increasing need to protect against climate change, elevated political risks and the ever more important segment of cyber risks continue to open up numerous entry points for the industry to launch new products. The digital transformation, in particular, is opening up new avenues for loss prevention. Going forward, it will prompt the industry to cooperate more closely with partners from the technology sector.

Property & Casualty reinsurance

Overview

The heavy natural catastrophe losses incurred in 2017 caused prices to move higher again or at least remain stable across the board for the first time after four years of declining reinsurance rates. The supply of reinsurance capacity – from both the traditional reinsurance sector and the ILS market – nevertheless still exceeded demand. Although the rate increases fell somewhat short of expectations, we are satisfied with the outcome of the treaty renewals in property and casualty reinsurance as at 1 January 2018. On this date 65% of our life and health reinsurance portfolio (excluding facultative business and structured reinsurance) was renegotiated. Our premium volume was boosted by altogether 12.7%, primarily from new business. The increases were particularly marked in Australia, Asia and in the United Kingdom. In addition, we were thoroughly satisfied with the treaty renewals in North America as well as in Western and Eastern Europe. In the area of cyber covers, too, attractive opportunities opened up to expand the portfolio. We noted another sharp rise in demand among customers for reinsurance solutions designed to provide solvency relief, enabling us to book further good gains in the structured reinsurance segment. Including this business, the growth booked from the treaty renewals in property and casualty reinsurance totalled 21.8%.

The pleasing growth achieved in the treaty renewals as at 1 January 2018 was made possible by the higher prices that could be obtained, increases in shares and the expansion of strategic cooperation arrangements. The outcome of the renewals constitutes a solid basis for attainment of our targets in the current financial year.

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

Property & Casualty reinsurance: Forecast development for 2018 M 94

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

1 In EUR, development in original currencies can be different
2 ++ = significantly above the cost of capital
+ = above the cost of capital
+/– = on a par with the cost of capital
– = below the cost of capital
3 All lines with the exception of those reported separately

Target markets

North America

In North America we expect to see further mergers and acquisitions, both in the insurance and reinsurance market. This does not, however, in any way have adverse implications for our market position. On the contrary, we anticipate further business opportunities based on our long-standing, close customer relationships and financial strength.

The rate situation turned around sharply for the better on account of the heavy losses from the three hurricanes in the year under review: overall, rates increased as at 1 January 2018 as expected; this is especially true of hurricane-exposed business, although price gains were also recorded under loss-free programmes. In addition, modest rate improvements were booked for casualty business. Against this backdrop we enlarged our business volume in these lines. We see further scope for selective growth in the area of cyber covers, where demand is rising due to heightened awareness in the market of potential loss events. In view of our successful treaty renewals as at 1 January 2018 we expect to book moderately higher growth for our North American portfolio in the current year. Our focus on existing customer relationships remains unchanged.

Continental Europe

In **Germany**, the largest single market within our Continental Europe segment, we were able to assert our prominent position in the treaty renewals as at 1 January 2018. Rates and conditions improved slightly for the most part. Although improved conditions were obtained in industrial fire insurance – which had suffered heavy losses – in the treaty renewals, these are still not adequate in view of the losses. We therefore maintained our selective underwriting policy in this segment. In motor business, our most important single line, we expect to further grow our premium income.

When it comes to covers for cyber risks and extended natural hazards, we expect to see a further rise in demand. A modest premium contraction is anticipated for our domestic market in 2018.

In the **other markets of Continental Europa** the picture was a mixed one. Generally speaking, prices and conditions improved in the treaty renewals as at 1 January 2018. Pleasing growth was booked in Italy and we enlarged our market share in Western Europe. A stabilisation in prices was observed in Eastern Europe; the price increases under loss-affected programmes were very substantial.

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

Specialty lines worldwide

Marine

In marine reinsurance we enjoyed satisfactory renewals as at 1 January 2018. The rate increases were most pronounced in the important London Market, especially under loss-impacted programmes. Rates for programmes in Asia and Continental Europe, on the other hand, were largely unchanged. Given these shifts in the market environment compared to last year, we expect a stable premium volume for 2018.

Aviation

In view of the unchanged strained state of the aviation insurance market, and also as a consequence of developments following the hurricane events in the United States and the Caribbean, prices on the reinsurance market stabilised on their low level. In non-proportional business we enlarged our shares in programmes which in our assessment offer profit potential. However, based on our continued selective underwriting approach, especially in relation to proportional acceptances, we anticipate a marginally reduced premium volume for the 2018 financial year.

Credit, surety and political risks

The anticipated upturn in the global economy should have favourable effects on the credit and surety lines as well as political risks business. We expect the level of insolvencies to stabilise. Premiums in credit reinsurance will likely rise on the back of higher shares in selected programmes. In surety reinsurance the stabilisation in developing markets should generate positive stimuli and result in organic growth. In the area of political risks we anticipate growing demand and rising premiums in view of the elevated risk situation around the world. All in all, we are looking for a stable market environment in the current 2018 financial year. Against this backdrop, we expect to book modestly increased premium income and a good result.

United Kingdom, Ireland, London Market and direct business

Rates here were higher in the treaty renewals as at 1 January 2018 on account of the loss experience in the year just ended. Most notably, we achieved appreciable price increases in the motor liability line in the United Kingdom and – depending on how impacted the business was by the hurricane events – for property reinsurance programmes in the London Market. We expect to see the same effect, albeit less marked, on the primary insurance side. New business opportunities for our company are particularly likely to open up with start-up syndicates at Lloyd's. Although we had already substantially boosted the reinsurance premium from cyber treaties in 2017, we expect to further expand our position here in 2018.

Facultative reinsurance

The current financial year is expected to bring increased demand for facultative reinsurance. This is due to the above-average loss incidence in the previous year and also reflects the changed risk appetite of our clients. Our strong customer focus should enable us to benefit disproportionately from the potential market opportunities. We enlarged our reinsurance portfolio in those regions and lines where we were able to push through higher prices. Particularly healthy premium growth is anticipated in North America, Latin America, the Caribbean and Australia. Overall, we expect to see a slight contraction in premium income for our facultative business in the current financial year with sustained healthy results.

A rising premium volume and continued good results are anticipated for our specialty lines in 2018.

Global reinsurance

Worldwide treaty reinsurance

Insurance markets in the **Asia-Pacific region** should stay on their growth track in 2018. We see attractive opportunities here to enlarge our portfolio.

Our organisational set-up with decentralised underwriting at our local branches – under strategic management from Hannover Home Office – is very well received by our customers and will enable us to put our Group capital efficiently on risk going forward, as it has in the past. The extent to which the significant natural catastrophe losses of 2017 will influence local reinsurance capacities and prices in Asia remains to be seen.

As far as our **Japanese** portfolio is concerned, we expect to maintain a stable market position with opportunities to write specific additional treaties or increase our shares. Given the high degree of market concentration, however, we do not include Japan among our growth markets in Asia. At the main renewal date on 1 April 2018 we expect conditions for most lines to at least remain stable; a trend towards rehabilitation should set in for natural catastrophe covers, which will favour reinsurers.

China continues to be the focus of our activities in Asia. Particularly against the backdrop of rapid digitalisation in this country, we are seeking new business opportunities with existing and new partners. In traditional reinsurance business we anticipate a continued oversupply of capacity, which means that a greater emphasis on innovation will play an important strategic role in the cultivation of new business.

The markets of **South and Southeast Asia** offer a broad spectrum of growth opportunities. We are concentrating on expanding our product development activities in retail business. In this way we want to support our customers in the early stages of their development.

The renewal season in **India** as at 1 April 2018 will see efforts to bring about a qualitative improvement in conditions as well as to further expand the business plan pursued by our branch in Mumbai.

In **Australia and New Zealand** the market players expect to see clear improvements in conditions in the run-up to the 1 July renewals. With demand for natural catastrophe capacity sharply higher, a global hardening of the reinsurance market will undoubtedly have clear implications for pricing in Australia and New Zealand too.

All in all, the markets of the Asia-Pacific region offer favourable prospects for further profitable growth. Special mention should also be made here of projects with large customers, some of which have already reach fruition while others are still in the development phase. In the context of our updated strategy cycle for the years 2018 to 2020 this region will play a major part in growing our volume and profit.

Rates in **South Africa** are expected to see continued appreciable hardening in light of the loss situation in the previous year. Having taken a cautious stance in the soft market as part of our cycle management, we shall leverage our good position in order act on business opportunities and further enlarge our portfolio. We therefore anticipate premium growth in the order of 10% for our reinsurance and specialty business in the current year. We also expect to see the business launch of some of our insurtech initiatives.

The market and the placement of reinsurance cessions are just as fiercely competitive in **Latin America** as they are in other insurance markets. In view of the considerable large losses in the year under review, however, original rates and treaty conditions improved appreciably in the renewals as at 1 January 2018. Based on our good market position and superb financial strength, we profited from the easing pressure on prices in the renewals. In addition, we are paying closer attention to an adequate level of primary insurance rates and making our capacity available accordingly. By adhering to our selective underwriting policy, and reflecting the improvement in primary insurance conditions, it is our assumption that we shall be able to profitably expand our portfolio in Latin American markets and the Caribbean in the current financial year.

Hannover Re expects demand for the coverage of **agricultural risks** to continue rising: the increasing need for agricultural commodities and foodstuffs as well as the growing prevalence of extreme weather events are generating stronger demand for reinsurance covers, particularly in emerging and developing markets. At Hannover Re we engage both in traditional reinsurance and in intensified cooperation with our customers and partners on the development of new original insurance tools. In this regard, we see further growth potential for index-linked products as part of direct and indirect insurance concepts in emerging and developing economies. The more widespread implementation of public-private partnerships offers us new opportunities to write profitable business in markets that have still to establish themselves.

In our **retakaful business** we anticipate a predominantly soft rate level on account of the competition-induced excess supply of capacity as well as a comparatively low oil price. Risk selection and good customer relations will therefore play a pivotal role in our underwriting of profitable business. Our focus in 2018 will be on our specialty lines. We are also planning a cautious entry into proportional motor business so as to participate in the available rate increases here. Prices for catastrophe XL business have risen owing to the numerous large losses in 2017. All in all, we expect the premium volume to remain stable.

In **natural catastrophe (Cat XL) business** we expect to see a continued inflow of cash from the capital markets in the current year as well as capacity growth at traditional insurers. Larger companies will continue to buy worldwide covers, hence reducing the number of reinsurers for such programmes. A further increase in the pressure for mergers & acquisitions is also anticipated. All in all, we do not anticipate a significant increase in demand for natural catastrophe covers. It is only because of the considerable losses caused by the forest fires in California that some primary insurers in this market are likely to buy additional covers. Rate increases were pushed through across a broad front on the back of the significant natural catastrophe losses. Programmes in the United States that been spared losses saw limited increases in the single-digit percentage range; in other countries the rate increases were in the order of 5%. Rate improvements of 20% to 40%, in some cases even higher, were achieved under loss-impacted programmes.

Owing to the implementation of risk-based models for calculating solvency requirements not only within but also outside the European Union, the surge in demand for **structured reinsurance** products is likely to remain undiminished. The key driver here continues to be the growing integration of reinsurance into insurers' risk management as a means of offsetting the increasingly exacting capital requirements placed upon them. In addition, the increasing pressure on the profit margins of our customers around the world is creating a greater need for tailor-made reinsurance solutions that can optimise the cost of capital. For the current year we are expecting further significant growth in the premium volume.

In the area of **insurance-linked securities (ILS)** we expect to see continued growth in demand. Investors are seeking a negative or minimal correlation with other financial investments and hence the diversification that this brings. We are responding to this market situation with a strong emphasis on service, offering individually tailored products – from collateralised reinsurance to catastrophe bonds – for property and life reinsurance risks. Over the coming years we expect our ILS activities to deliver a positive and consistently rising profit contribution. The capital market remains an important factor in the protection covers taken out by our company.

Life & Health reinsurance

In life and health reinsurance we see ourselves as more than a pure risk carrier. In our role as an expert partner, we draw on our worldwide know-how to give our customers comprehensive support. We attach just as much importance to the advantages of already being closely integrated into the business process in advance so as to jointly identify the exact reinsurance requirement as we do to staying involved throughout the process and keeping track of the business experience. Due to the very long-term relationships that this business routinely entails, there is a mutual interest in the reinsurance coverage generating sustainable value for all parties concerned.

Life & Health reinsurance: Forecast development for 2018 **M 95**

	Volume [1]	Profitability [2]
Financial Solutions	→	++
Risk Solutions		
Longevity	→	+/–
Mortality	→	–
Morbidity	↗	+/–

[1] In EUR, development in original currencies can be different
[2] ++ = significantly above the cost of capital
+ = above the cost of capital
+/– = on a par with the cost of capital
– = below the cost of capital

For the German (re)insurance market it is our expectation that in the coming reporting period the interest rate level will remain unchanged on the present low level, thereby further adding to the strain associated with the additional interest rate reserves that have to be constituted by German life insurers. However, policymakers are expected to take appropriate supportive actions in relation to the additional interest rate reserves as part of the revisions to the Life Insurance Reform Act. The concrete implications for the industry remain to be seen.

Owing to the pressure of consolidation in the German life insurance market, it remains likely that several primary insurers will firm up their plans to sell parts of their books of life insurance that are closed for new business. We are confident of our ability to assist companies in this situation. Along with this challenge, German life insurers are under considerable pressure to safeguard the future viability of the industry with innovative new product concepts. Particularly in the increasingly relevant area of insurance products for seniors, we operate directly at our customers' side in order to develop and implement concrete solutions.

Furthermore, we see the potential to instil fresh momentum in our customers with our automated underwriting systems. Demand for such automated solutions is especially brisk in France. Upcoming supervisory changes could generate business potential here in connection with hr | ReFlex. In Russia, too, regulatory reform will influence business going forward: the establishment of a new state reinsurer and the associated requirement to cede 10% of all transactions to it will trigger movement in the market. The mandatory cession applies to all business and is applicable effective 1 January 2018 – as well as retroactively from 1 January 2017.

Broadly speaking, it is our assumption that the need and demand for both solvency and capital relief will generally increase in European markets. The requirements that have to be met for individual risks – which in some instances are very high – are at times putting primary insurers under heavy pressure. In the area of financial solutions we similarly see thoroughly positive growth opportunities in Australia and the United States.

The tax reform package adopted in the United States shortly before the end of 2017 will also have implications for our life reinsurance business there. Thanks to our robust Group structure, we will nevertheless be able to continue operating as one of the leading providers in the world's largest life reinsurance market. We stand ready to support our clients with our customary expertise and service.

With regard to the book of US mortality business assumed in 2009, we anticipate further strains in the current year on account of higher-than-expected mortality rates.

In Latin America we anticipate positive growth stimuli, just as we do in Asia, Africa and the Middle East. Most notably, we take an optimistic view of the future development of business in conjunction with wellness-oriented insurance concepts that not only provide policyholders with pure risk coverage but also motivate them through an individually tailored bonus system to stay active and eat a healthy diet.

Furthermore, it is our expectation that the international longevity market will continue to develop favourably and that our customers will increasingly show concrete interest in relevant reinsurance solutions.

Investments

Geopolitical developments harbour growing uncertainties and the behaviour of capital market players can to some extent scarcely be explained by fundamentals. With this in mind, we shall continue to invest substantial parts of our investment portfolio conservatively. Nevertheless, irrespective of the sovereign debt issue, the brighter economic outlook will also be reflected in appropriate risk-taking. Our emphasis on broad diversification will remain in place. By maintaining the most neutral possible modified duration we shall ensure that the interest rate risk is tightly managed.

The enlargement of the asset portfolio should have a positive effect on investment income. Despite the persistently low level of interest rates, we expect to maintain a stable average return on our investments. The interest rate increases observed in the course of the year under review in our main currency areas could provide a valuable boost in this respect. In view of the low returns on more secure investments, we shall continue to invest in products offering attractive credit spreads and selectively expand our holdings in the areas of alternative investments, real estate and emerging markets. We intend to significantly slow or even wind up the moves made over the past two years to expand the portfolio of lower-rated fixed-income securities while at the same time increasing the proportion of government bonds in order to safeguard the return while maintaining the overall level of risk virtually unchanged.

If we see corrections to the current valuation levels of listed equities we are ready to enter the market on a moderate scale.

In our assessment, the Brexit issue is an indirect source of uncertainty affecting capital markets, but not a direct factor influencing our asset management activities because we assume that markets have already priced in the uncertainty surrounding the withdrawal process.

Outlook for the full 2018 financial year

In the current financial year we anticipate a very good overall result for the Hannover Re Group. Bearing in mind the developments in property and casualty as well as life and health reinsurance, we are looking to book single-digit percentage growth in gross premium – based on constant exchange rates.

In property and casualty reinsurance we expect a good increase in premium volume in light of the outcome of the treaty renewals as at 1 January 2018. The principal driver here is higher premium income in Asia and Australia, Western and Eastern Europe as well as North America, coupled with strong demand in structured reinsurance business. We shall nevertheless stand by our selective underwriting policy, under which in large part we write only business that satisfies our margin requirements. Looking ahead to the subsequent rounds of renewals during the year, the situation is expected to be similar to the one at the start of the year. Thanks to our good ratings, long-standing stable customer relationships and low expense ratio, a solid outcome should be attainable. We anticipate a good underwriting result, provided the burden of large losses is within our expectations. In terms of our targeted combined ratio, we continue to aim for a figure under 96%. The EBIT margin for property and casualty reinsurance should amount to at least 10%.

In the context of our Group strategy cycle we partially modified the key performance indicators for our worldwide life and health reinsurance. This is especially true of the growth target for gross premium, with average organic growth now expected to come in between 3% and 5% from 2018 onwards (at constant exchange rates; over a 3-year period, aligned with the 3-year Group strategy cycle). Going forward, we shall dispense with target EBIT margins for each reporting category. Instead, the new target that we have set ourselves is EBIT growth of more than 5% on average over a 3-year period. The targeted level for the Value of New Business remains unchanged at a minimum of EUR 220 million per year.

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

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

For 2018 we anticipate Group net income of more than EUR 1 billion. This is subject to the proviso that large loss expenditure does not significantly exceed the budgeted level of EUR 825 million and that there are no unforeseen distortions on capital markets.

Events after the reporting date

Matters of special significance occurring after the closing date for the consolidated financial statements are described in section 8.10 of the notes "Events after the balance sheet date" on page 248.