Interim management report

Report on economic position

Business development

- Very pleasing half-year result
- Currency-adjusted gross premium growth beats expectations
- Balanced asset management supports performance of both business groups

Our reinsurance business developed highly satisfactorily in the first half of 2015. In property and casualty reinsurance we booked substantial currency-adjusted growth in gross premium, despite our selective underwriting policy. Even though a number of smaller major losses were incurred in the second quarter together with some belatedly reported large losses for the first quarter, total expenditure on major losses remained below the budget set aside for the first six months of 2015. In life and health reinsurance we were able to act on various opportunities, most notably in Asian markets, and improved our result relative to the previous year's period.

Gross written premium in our total reinsurance business increased sharply – especially due to the strong US dollar – by 21.5% as at 30 June 2015 to EUR 8.6 billion (EUR 7.1 billion); at constant exchange rates, growth would have still been as high as 9.5%. This figure for the first six months shows that we are progressing very much as planned towards stronger gross premium growth for the full year. The level of retained premium rose to 88.3% (87.7%). Net premium earned climbed by 20.2% to EUR 7.0 billion (EUR 5.8 billion); growth would have amounted to 8.3% at constant exchange rates.

In view of the continued low interest rate environment, we are very satisfied with the development of our investments. Having surged substantially in the first quarter, our portfolio of assets under own management retreated appreciably to EUR 37.4 billion, but it remains above the level of 31 December 2014 (EUR 36.2 billion). The decline relative to the first quarter was driven principally by lower valuation reserves as a consequence of higher interest rates at the long end of the maturity curve. Despite the broadly sustained low interest rate environment, ordinary investment income excluding interest on deposits was sharply up on the comparable period at EUR 598.7 million (EUR 490.1 million). This includes not only increased earnings from fixed-income securities but also sharply higher income from our real estate investments and the special effect in life and health reinsurance amounting to EUR 39.3 million. Interest on deposits increased to EUR 197.4 million (EUR 174.9 million).

Net realised gains on disposals were lower than in the corresponding period of the previous year at EUR 66.6 million (EUR 88.5 million). The higher realised gains recorded in the previous year were driven in particular by repayment of a subordinated bond. Fair value changes in our financial assets measured at fair value through profit or loss were negative on balance at EUR 1.6 million, as against a positive amount of EUR 10.0 million in the comparable period. The impairments taken in the period under review were once again only very minimal.

Income from investments under own management climbed sharply as at 30 June 2015 to EUR 601.3 million (EUR 532.6 million) on the back of the stronger ordinary income. The lower net realised gains and a reduced result from our financial assets measured at fair value through profit or loss were thus comfortably offset. The annualised return generated on investments under own management (excluding ModCo derivatives and inflation swaps) stood at 3.4% (3.3%).

The operating profit (EBIT) for the first half-year was thoroughly satisfactory at EUR 789.4 million (EUR 687.3 million). Group net income improved by a further 19.7% on the already very good result of the previous year to reach EUR 531.9 million (EUR 444.4 million). Earnings per share amounted to EUR 4.41 (EUR 3.69).

The shareholders' equity of Hannover Re remained at a robust EUR 7.7 billion as at 30 June 2015 (31 December 2014: EUR 7.6 billion) despite the dividend payment of EUR 512.5 million. The book value per share amounted to EUR 63.62 (31 December 2014: EUR 62.61). The annualised return on equity for the first six months stood at 14.0% (31 December 2014: 14.7%).

Results of operations, financial position and net assets

Property and casualty reinsurance

- Sustained intense competition in property and casualty reinsurance
- Major loss expenditure in first half-year below budget
- Another good underwriting result

Property and casualty reinsurance continues to be fiercely competitive, with the supply of reinsurance coverage still outstripping demand. The most important drivers here are the absence of market-changing large losses, the tendency among ceding companies to retain more risks for own account thanks to their healthy capital resources and the availability of additional capacities from the ILS market, especially in US natural catastrophe business. Taken together, these factors are putting prices and conditions under sustained pressure. A trend towards some easing of the premium erosion can nevertheless be observed in certain lines and markets.

The outcome of the round of treaty renewals as at 1 April 2015 proved satisfactory for Hannover Re. Business in Japan is traditionally renegotiated on this date, along with further treaty renewals – albeit smaller in volume – in the markets of Australia, New Zealand and South Korea. Although the pressure on rates for natural catastrophe covers in Japan continued to grow as expected, we nevertheless obtained prices that were broadly commensurate with the risks. Price declines in personal accident insurance and in the area of per risk property covers were very minimal. In casualty business, on the other hand, rates again moved slightly higher. By improving our position with specific core customers we were even able to book modest growth in the total gross premium volume of our Japanese portfolio in the original currency. We successfully maintained our market position thanks to our good, long-term relationships with our ceding companies.

In Korea, where just a small part of our business was up for renewal, market conditions remain challenging – prompting us to further consolidate our portfolio. In India the treaty renewals proved to be more difficult than anticipated. Prices for traditional property and casualty reinsurance covers fell while at the same time exposures increased. With this in mind, we scaled back our involvement in this market.

A small portion of US property catastrophe business was also up for renewal as at 1 April. We saw continued premium erosion here of between 5% and 10% as expected, although no further softening in conditions was observed. Our premium volume rose slightly owing to the fact that we wrote more business with our main clients.

All in all, we are highly satisfied with the premium growth in property and casualty reinsurance as at 30 June 2015: gross premium climbed by 21.9% to EUR 5.0 billion (EUR 4.1 billion). At constant exchange rates an increase of 10.0% would have been booked. The level of retained premium contracted year-on-year to 89.6% (91.1%). Net premium earned rose by 15.5% to EUR 3.9 billion (EUR 3.4 billion); adjusted for exchange rate effects, growth would have amounted to 4.4%.

Expenditure on major losses in the first half of 2015 was below the expected level of EUR 294 million at EUR 197.4 million (EUR 104.7 million). The most costly individual losses for Hannover Re were the storm "Niklas" at EUR 35.4 million and the explosion on an oil platform in the Gulf of Mexico, which resulted in expenditure of EUR 32.9 million.

The underwriting result for total property and casualty reinsurance improved by 7.9% to EUR 170.9 million (EUR 158.3 million) and thus closed on a very good level. The combined ratio of 95.4% (95.0%) was positive and hence in line with our goal of staying below 96% for the full year.

Income from assets under own management in property and casualty reinsurance grew by a pleasing 6.6% to EUR 415.0 million (EUR 389.4 million). Significantly higher ordinary income was the key driver here.

The operating profit (EBIT) in property and casualty reinsurance increased by 12.0% to EUR 583.7 million (EUR 521.0 million) as at 30 June 2015. The EBIT margin of 15.0% (15.5%) comfortably surpassed the minimum target of 10%. Group net income surged by a pleasing 20.3% to EUR 418.4 million (EUR 347.9 million). Earnings per share stood at EUR 3.47 (EUR 2.89).

Key figures for property and casualty reinsurance

in EUR million	2015					2014	
	1.1.–31.3.	1.4.–30.6.	+/– previous year	1.1.–30.6.	+/– previous year	1.4.–30.6.	1.1.–30.6.
Gross written premium	2,617.1	2,355.1	+19.5%	4,972.2	+21.9%	1,970.4	4,078.1
Net premium earned	1,882.3	2,011.9	+15.7%	3,894.2	+15.5%	1,738.6	3,370.2
Underwriting result	76.6	94.3	+33.3%	170.9	+7.9%	70.7	158.3
Net investment income	195.1	230.1	+18.6%	425.2	+6.6%	194.0	398.8
Operating result (EBIT)	255.2	328.5	+36.6%	583.7	+12.0%	240.5	521.0
Group net income	171.4	247.0	+64.6%	418.4	+20.3%	150.1	347.9
Earnings per share in EUR	1.42	2.05	+64.6%	3.47	+20.3%	1.24	2.89
EBIT margin [1]	13.6%	16.3%		15.0%		13.8%	15.5%
Combined ratio [2]	95.7%	95.0%		95.4%		95.6%	95.0%
Retention	88.9%	90.3%		89.6%		91.1%	91.1%

[1] Operating result (EBIT) / net premium earned
[2] Including funds withheld

Life and health reinsurance

- Very pleasing gross premium growth
- Profitability improves on previous year
- Financial solutions business comfortably beats target EBIT margin

Current developments on international capital and financial markets did not have any significant implications for our life and health reinsurance portfolio in the reporting period just ended. We were able to act on promising business opportunities and this has been reflected in a good result.

In the United Kingdom the market for enhanced annuities has shrunk considerably following the pension reform announced last year. Contrary to this trend, however, we were able to maintain a stable business volume in the UK enhanced annuities market compared to the previous year's period. What is more, we substantially expanded our longevity portfolio by writing blocks of annuity business. In addition, our new automated underwriting system for the sale of life insurance products through bank distribution channels was successfully rolled out on 1 June 2015 in cooperation with a primary insurance partner. Not only that, at the beginning of April we were the first reinsurer – working together with our partners – to successfully launch a comprehensive lifestyle insurance concept on the US market that offers life insurance coverage while at the same time actively promoting a healthy lifestyle.

In the second quarter we achieved another exceptionally strong performance in our US financial solutions portfolio. The health and special risk business written in this market also delivered a positive profit contribution as anticipated. Our US mortality portfolio, on the other hand, did not entirely live up to our expectations. Both in terms of the mortality risk and the lapse risk, results were in some cases well below what had been anticipated. In France results fell slightly short of our expectations. To some extent, however, this was offset by improved risk experiences in Eastern and Central Europe as well as Germany. Asian markets also played a positive part in the overall result, especially in the area of financial solutions.

Gross written premium as at 30 June 2015 amounted to EUR 3.6 billion (EUR 3.0 billion), equivalent to a very pleasing increase of 21.0%. Growth would have totalled 8.9% at constant exchange rates. Net premium earned climbed by 26.6% to EUR 3.1 billion (EUR 2.5 billion); adjusted for exchange rates, growth of 13.8% would have been generated. The retention rose to 86.5% (83.1%).

Investment income including interest on deposits totalled EUR 366.7 million (EUR 299.5 million) in the reporting period just ended. The good result was helped in part by a special effect from the first quarter. The performance of investments held for our account by US cedants declined in the first half of 2015 relative to the corresponding period of the previous year to stand at -EUR 6.4 million (EUR 4.6 million). Assuming that the experience develops as planned, these valuation gains and losses will fully offset in the period until maturity of the securities, which means that this position should close out with no effect on income over the entire duration.

The improved profitability that we had been striving for in life and health reinsurance was achieved as at 30 June 2015: the operating profit (EBIT) fared better than expected. It climbed by 29.2% relative to the previous year's period to reach EUR 200.0 million (EUR 154.8 million) and thus delivered a solid contribution to the overall result. In terms of the EBIT margins for the various business categories, financial solutions business generated a thoroughly gratifying return of 24.9% that clearly surpassed the 2% target. Longevity business similarly met its set target of 2%, coming in at 3.5%. Mortality and morbidity business, on the other hand, fell short of their target figure (6%) at 2.7% owing to the aforementioned effects. Group net income closed at a pleasing EUR 145.6 million (EUR 115.4 million), equivalent to an increase of 26.2%. Earnings per share amounted to EUR 1.21 (EUR 0.96).

Key figures for life and health reinsurance

in EUR million	2015					2014	
	1.1.–31.3.	1.4.–30.6.	+/– previous year	1.1.–30.6.	+/– previous year	1.4.–30.6.	1.1.–30.6.
Gross written premium	1,783.3	1,831.2	+24.6%	3,614.5	+21.0%	1,470.2	2,986.9
Net premium earned	1,549.5	1,575.2	+32.6%	3,124.8	+26.6%	1,187.9	2,469.0
Investment income	219.4	147.3	-0.2%	366.7	+22.4%	147.6	299.5
Operating result (EBIT)	173.3	26.7	-70.1%	200.0	+29.2%	89.2	154.8
Net income after tax	127.5	18.1	-74.9%	145.6	+26.2%	72.0	115.4
Earnings per share in EUR	1.06	0.15	-74.9%	1.21	+26.2%	0.60	0.96
Retention	88.1%	85.0%		86.5%		81.7%	83.1%
EBIT margin[1]	11.2%	1.7%		6.4%		7.5%	6.3%

[1] Operating result (EBIT)/net premium earned

Investments

- High-quality diversified investment portfolio to be maintained
- Ordinary investment income higher
- Return on investment well on track at 3.4%

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

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

Capital markets were once again challenging in the period under review and – against a backdrop of considerable volatility – were notable for a low level of interest rates overall but also in some cases rising rates at the long end of the maturity curve as well as increased risk premiums on corporate bonds. Higher yields were similarly observed for German and UK government bonds with longer maturities. German short- and medium-term debt is nevertheless still being sold at a negative return in net terms. Yields on US Treasuries remained relatively stable in the period under review. Credit spreads on European and US corporate bonds increased, especially in the middle rating classes.

In total, the unrealised gains on our fixed-income securities decreased to EUR 1,351.0 million (EUR 1,743.6 million). Our portfolio of assets under own management reached a higher level than in the previous year at EUR 37.4 billion (31 December 2014: EUR 36.2 billion). This can be attributed primarily to effects associated with the appreciation of currencies – and especially the US dollar – against the euro, which more than offset lower valuation reserves due to a continued rise in interest rates as well as cash outflows resulting from dividend and interest payments. We left the allocation of our assets to the individual classes of securities broadly unchanged in the first six months, as a consequence of which only minimal adjustments were made in the context of regular portfolio maintenance. The modified duration of our fixed-income portfolio changed only marginally relative to the previous year at 4.5 (4.6).

Despite the prevailing low level of interest rates, ordinary investment income excluding interest on deposits was considerably higher than in the corresponding period of the previous year at EUR 598.7 million (EUR 490.1 million). This was attributable in part to the special effect in life and health reinsurance business but also to substantially higher earnings from fixed-income investments and real estate – with income booked in currencies that had appreciated against the euro an increasingly significant factor here. In addition, our exposure to high-yield investment funds played a very pleasing part here. Interest on deposits also climbed to EUR 197.4 million (EUR 174.9 million).

Impairments of altogether just EUR 14.7 million (EUR 10.3 million) were taken. This includes impairments of EUR 2.4 million (EUR 0.0 million) on fixed-income securities and EUR 1.3 million (EUR 1.3 million) on alternative investments. Scheduled depreciation on directly held real estate rose to EUR 10.8 million (EUR 9.0 million), a reflection of our increasing involvement in this area. No write-ups were made.

The net balance of gains realised on disposals stood at EUR 66.6 million (EUR 88.5 million) and was attributable in large measure to regrouping activities as part of regular portfolio maintenance and the provision of liquidity for dividend payments.

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 period under review gave rise to unrealised losses of EUR 6.4 million recognised in investment income. In the comparable period the amount had been positive at EUR 4.6 million. The inflation swaps taken out in 2010 to hedge part of the inflation risks associated with the loss reserves in our technical account no longer produced any unrealised gains or losses recognised in investment income because these contracts matured or were terminated in the course of the second quarter (+EUR 4.5 million). In future, we shall maintain this protection solely by way of the bonds already included in the portfolio whose coupon payments are inflation-linked. Altogether, the unrealised losses on our assets recognised at fair value through profit or loss amounted to EUR 1.6 million. These contrasted with unrealised gains of EUR 10.0 million in the corresponding period of the previous year.

Our investment income including interest on deposits therefore came in considerably higher than in the comparable period at EUR 798.8 million (EUR 707.5 million). In view of the low level of interest rates, we are highly satisfied to have been able to boost our ordinary investment income in part through increased earnings from fixed-income securities. The special effect in life and health reinsurance and stronger income from real estate were, however, also significant factors here. The reduced result from our assets measured at fair value through profit or loss and the lower realised gains were thus comfortably offset. Income from assets under own management totalled EUR 601.3 million (EUR 532.6 million), equivalent to an annualised average return (excluding effects from ModCo derivatives and inflation swaps) of 3.4%. Although the aforementioned special effect in life and health reinsurance is also reflected here, we are nevertheless very well on track to achieve the envisaged target of 3.0% for the full year.

Net investment income

in EUR million	2015					2014	
	1.1.–31.3.	1.4.–30.6.	+/– previous year	1.1.–30.6.	+/– previous year	1.4.–30.6.	1.1.–30.6.
Ordinary investment income [1]	312.2	286.5	+15.2%	598.7	+22.1%	248.7	490.1
Result from participations in associated companies	2.5	2.1	+52.9%	4.6	+7.2%	1.4	4.3
Realised gains/losses	45.0	21.6	-37.1%	66.6	-24.7%	34.4	88.5
Appreciation [2]	8.2	6.5	+36.1%	14.7	+42.3%	4.8	10.3
Change in fair value of financial instruments [3]	(10.6)	9.0		(1.6)	-116.3%	2.6	10.0
Investment expenses	24.3	28.0	+25.9%	52.3	+4.4%	22.2	50.0
Net investment income from assets under own management	316.6	284.7	+9.5%	601.3	+12.9%	260.0	532.6
Net investment income from funds withheld	99.0	98.4	+14.0%	197.4	+12.9%	86.3	174.9
Total investment income	**415.7**	**383.1**	**+10.6%**	**798.8**	**+12.9%**	**346.4**	**707.5**

[1] Excluding 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

Opportunity and risk report

Risk report

- We are well capitalised, and our available capital comfortably exceeds the required capital
- We are convinced that our risk management system gives us a transparent overview of the current risk situation at all times and that we are optimally prepared for Solvency II

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 even 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 and retrocessionaires,
- 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 credit 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.

Strategy implementation

We revised our corporate strategy in the previous year. It encompasses ten fundamental strategic principles which safeguard the realisation of our vision “Long-term success in a competitive business” across the various divisions. 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 derived from our corporate strategy. It forms the core element in our handling of opportunities and risks. The risk strategy specifies more closely the goals of risk management and documents our understanding of risk. We have defined ten overriding principles within our risk strategy:

1. We adhere to the risk appetite set by the Executive Board.
2. We integrate risk management into value-based management.
3. We promote an open risk culture and the transparency of our risk management system.
4. We strive for the highest ERM rating and the approval of our internal model.
5. We determine a materiality threshold for our risks.
6. We make use of appropriate quantitative methods.
7. We apply well-suited qualitative methods.
8. We allocate our capital risk-based.
9. We ensure the necessary separation of functions through our organisational structure.
10. We assess the risk contribution from new business areas and new products.

The risk strategy is similarly specified with an increasing degree of detail on the various levels of the company.

The risk strategy and the major guidelines derived from it, such as the Framework Guideline on Risk Management and the central system of limits and thresholds, 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 Group net income with a probability of 90% p. a. and the likelihood of the complete loss of our economic capital and shareholders' equity 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, solvency regulations, 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.

Major external factors influencing risk management

Regulatory developments: Solvency II is a reform of insurance supervision law in Europe, the implementation of which on 1 January 2016 poses enormous challenges for the entire (re)insurance industry. Along with redefining capital requirements, Solvency II places additional demands on companies' internal management systems and on the information to be disclosed by undertakings to the regulator and the public at large. Further more specific aspects of Solvency II were defined in 2014, including among other things a new draft of the delegated act. Hannover Re has been progressively implementing the new requirements in recent years. In view of our internal target capitalisation with a confidence level of 99.97%, which comfortably exceeds the level of 99.5% envisaged for target capitalisation under Solvency II, the capital requirements of Solvency II do not present any additional hurdle for our company. The core functions of Solvency II – the risk management function, the actuarial function, the compliance function and the internal audit function – have been implemented along existing processes and organisational structures at Hannover Re. Additional staff had to be taken on and extra systems deployed as part of the launch phase, first and foremost in order to be able to meet internal and external reporting requirements.

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). Countries such as Switzerland have already been granted equivalence status.

Above and beyond this, further capital requirements for large, internationally operating (re)insurance groups are to be anticipated in the future. These requirements are under development by the IAIS and the Financial Stability Board (FSB).

Risk capital

In the interests of our shareholders and clients we strive to ensure that our risks remain commensurate with our capital resources. Our quantitative risk management provides a uniform framework for the evaluation and steering of all risks affecting the company as well as of our capital position. In this context, the internal capital model is our central tool. The internal capital model of the Hannover Re Group is a stochastic enterprise model. It covers all subsidiaries and business groups of the Hannover Re Group. The central variable in risk and enterprise management is the economic capital, which is calculated according to market-consistent measurement principles and in many respects corresponds to the own funds under Solvency II. Hannover Re's internal capital model reflects all risks that influence the development of the economic capital. They 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. The 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% which will be required in future under Solvency II. It goes without saying that Hannover Rück SE also meets the current capital requirements set by regulators. The capital adequacy ratio of Hannover Rück SE under Solvency I stood at 136% as at 31 December 2014. Since the corresponding calculation is neither market-consistent nor risk-based a relevant comparison with the coverage ratio under the internal capital model is not possible.

The Hannover Re Group is seeking approval of its internal model for the determination of regulatory capital under Solvency II. If approval is given and depending on the final measurement rules of Solvency II, the capitalisation with a confidence level of 99.5% constitutes an indication of the fulfilment of future regulatory requirements. Our excess capital coverage at the target confidence level of 99.97% is currently very comfortable. Hannover Re is well capitalised and our available capital comfortably exceeds the currently required capital.

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, meaning that both these rating agencies are also given access to confidential information about Hannover Re. 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. The ratings highlight, in particular, the company's very good risk management, the consistent and systematic implementation of corporate strategy by management and the excellent capital resources. Hannover Re's internal capital model is also examined as part of the rating. Based on this review, Standard & Poor's factors the results of the internal capital model of the Hannover Re Group 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. The second line of defence consists of the core functions of risk management, the actuarial function and the compliance function. These units are responsible for monitoring and control. The third line of defence is the process-independent monitoring performed by the internal audit function. The chart on the following page provides an overview of the central functions and bodies within the overall system as well as of their major tasks and powers.

The risk management functions meet regularly, e. g. in the context of the Group Risk Management Meeting (GRiMM), in order to support Group-wide risk communication and establish an open risk culture.

Key elements of the risk management system

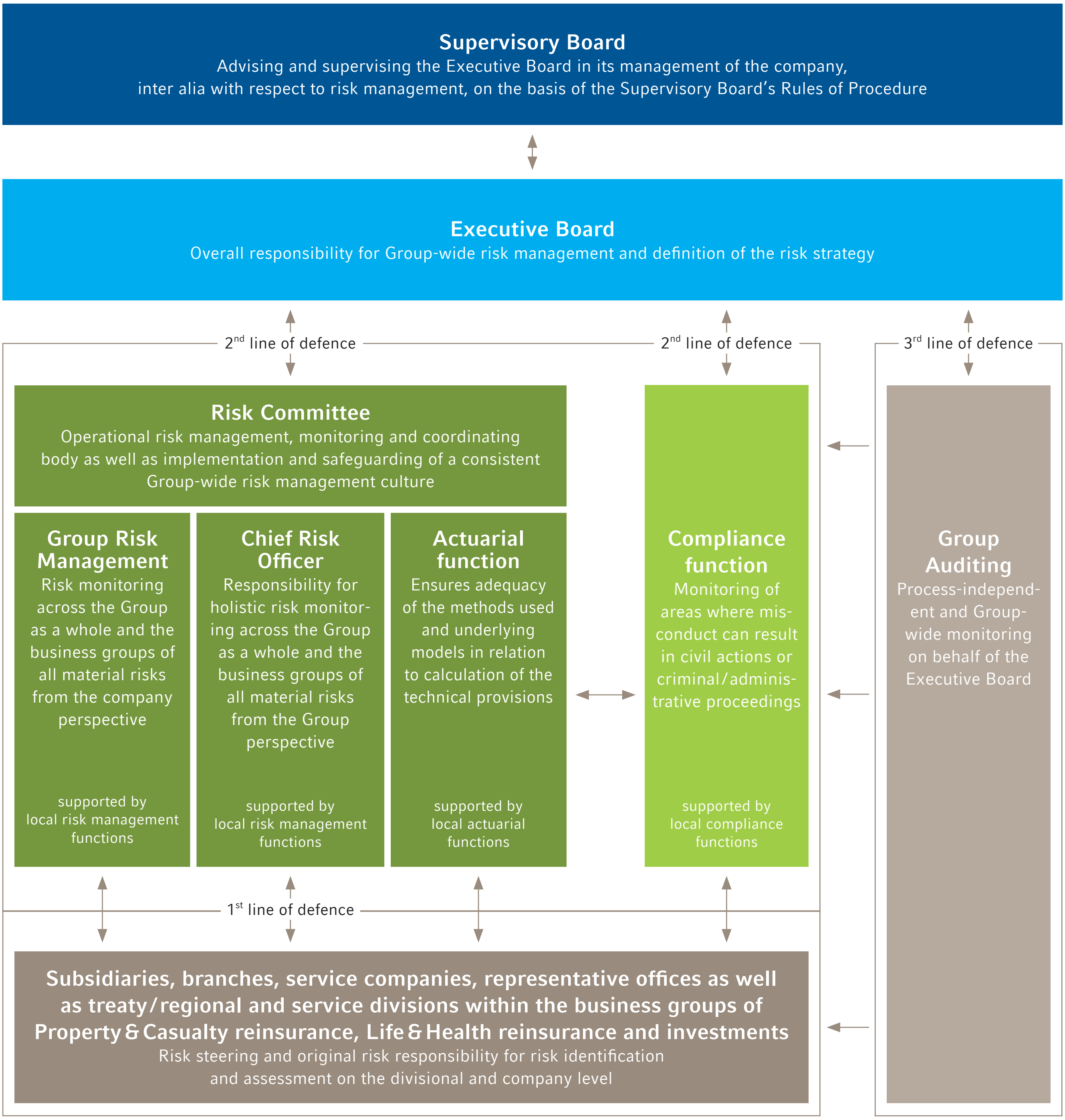
Our risk strategy, the Framework Guideline on Risk Management and the system of limits and thresholds for material risks of the Hannover Re Group describe the central elements of our risk management system. The risk management system is subject to a constant cycle of planning, action, control and improvement. 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.

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

Risk-bearing capacity concept

The establishment of the risk-bearing capacity involves determining the total available risk coverage potential and calculating how much of this is to be used for covering all material risks. This is done in conformity with the parameters of the risk strategy and the risk appetite defined by the Executive Board. The quantitatively measurable individual risks and the risk position as a whole are evaluated using our risk model. A central system of limits and thresholds is in place to monitor material risks. This system incorporates – along with other risk-related key figures – in particular the indicators derived and calculated from the risk-bearing capacity. Adherence to the overall risk appetite is verified using the results of the risk model. The calculation is updated half-yearly.

Central functions of risk monitoring and steering



Risk identification

A key source of information for monitoring risks is the risk identification carried out on a rotating basis. All identified risks are documented in the central register containing all material risks. Risk identification takes the form of, for example, 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 or reputational risks). Qualitative assessment takes the form of inter alia expert evaluations. Quantitative assessment of material risks and the overall risk position is performed by Group Risk Management using the Hannover Re risk model. The model makes allowance as far as possible for risk accumulations and concentrations.

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 and the required capital are factored into the division's decision. Risk steering is assisted by, among other things, the parameters of the central and local underwriting guidelines and by defined limits and thresholds.

Risk monitoring

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

Risk communication and risk culture

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

Risk reporting

Our risk reporting provides systematic and timely information about all material risks and their potential implications. The central risk reporting system consists primarily of regular risk reports, e. g. on the overall risk situation, adherence to the parameters defined in the risk strategy or on the capacity utilisation of natural catastrophe scenarios. Complementary to the regular risk reporting, immediate internal reporting on material risks that emerge at short notice takes place as necessary. The already existing range of risk reports will be supplemented in the context of Solvency II implementation by further reports, including for example the "Regular Supervisory Report" (RSR) and the "Solvency and Financial Condition Report" (SFCR). The "RSR" was generated in the second quarter of 2015 as part of the preparatory phase.

Process-integrated/-independent monitoring and quality assurance

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

Internal control system

We organise our business activities in such a way that they are always in conformity with all legal requirements. The internal control system (ICS) is an important subsystem that serves, among other things, to secure and protect existing assets, prevent and reveal errors and irregularities and comply with laws and regulations. The core elements of Hannover Re's ICS are documented in a Framework 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 Framework 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 Web-based 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.

Internal risk assessment

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. The corresponding measurement principles also largely apply to the Intrinsic Value Creation (IVC). 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. We use risk-free interest rates derived from yields on the highest-quality government bonds for discounting of our future cash flows. 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 methods used are the same as those adopted in the calculation of our Market Consistent Embedded Value (MCEV). The significance of these options and guarantees in our portfolio is, however, minimal.

The available economic capital, which is available as liable capital for policyholders, is composed of the economic equity and the hybrid capital. 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.

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 limited 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 crucial 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.

The reserve risk, i. e. the risk of under-reserving losses and the resulting strain on the underwriting result, is the overriding priority in our risk management. We attach the utmost importance to a conservative reserving level and therefore traditionally have a high confidence 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.

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.

In order to partially hedge inflation risks Hannover Re has taken out bonds with inflation-linked coupon payments that protect parts of the loss reserves against inflation risks. An inflation risk exists particularly inasmuch as the liabilities (e. g. loss reserves) could develop differently than assumed at the time when the reserve was constituted because of inflation.

Licensed scientific simulation models, supplemented by the expertise of our own specialist departments, are used to assess our material catastrophe risks from natural hazards (especially earthquake, windstorm and flood). Furthermore, we establish the risk to our portfolio from various scenarios in the form of probability distributions. The monitoring of the risks resulting from natural hazards is rounded out by realistic extreme loss scenarios. Within the scope of this process, the Executive Board defines the risk appetite for natural perils once a year on the basis of the risk strategy by specifying the portion of the economic capital that is available to cover risks from natural perils. This is a key basis for our underwriting approach in this segment. As part of our holistic approach to risk management across business groups, we take into account numerous relevant scenarios and extreme scenarios, determine their effect on portfolio and performance data, evaluate them in relation to the planned figures and identify alternative courses of action. For the purposes of risk limitation, maximum amounts are also stipulated for various extreme loss scenarios and return periods in light of profitability criteria. Adherence to these limits is continuously verified by Group Risk Management. The Risk Committee, Executive Board and P & C Executive Committee are kept regularly updated on the degree of capacity utilisation.

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

Combined and catastrophe loss ratio

in %	1H 2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005 [1]
Combined ratio (property and casualty reinsurance)	95.4	94.7	94.9	95.8	104.3	98.2	96.6	95.4	99.7	100.8	112.8
Thereof catastrophe losses [2]	5.1	6.1	8.4	7.0	16.5	12.3	4.6	10.7	6.3	2.3	26.3

1 Including financial reinsurance and specialty insurance

2 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)

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. Counterparty and lapse risks are also material since we additionally prefinance our cedants' new business acquisition costs. Furthermore, we are exposed to catastrophe risks, especially catastrophes 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 portfolios has continued to grow and contributes to diversification within life and health reinsurance.

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

Through our quality assurance measures we ensure that the reserves established by ceding companies in accordance with local accounting principles satisfy all requirements with respect to the calculation methods used and assumptions made (e. g. use of mortality and morbidity tables, assumptions regarding the lapse rate). New business is written in all regions in compliance with underwriting guidelines applicable worldwide, which set out detailed rules governing the type, quality, level and origin of risks. These global guidelines are revised annually and approved by the Executive Board. Special underwriting guidelines give due consideration to the particular features of individual markets. By monitoring compliance with these underwriting guidelines we minimise the risk of an inability to pay or of deterioration in the financial status of cedants. Regular reviews and holistic analyses (e. g. with an eye to lapse risks) are carried out with respect to new business activities and the assumption of international portfolios. The actuarial reports and documentation required by local regulators ensure that regular scrutiny also takes place on the level of the subsidiaries. The interest rate risk, which in the primary sector is important in life business owing to the guarantees that are given, is of only minimal relevance to our company thanks to the design of our reinsurance treaties. We have confidence in the entrepreneurial abilities of our underwriters and grant them the most extensive possible powers. In our decentralised organisation we manage risks where they arise using a consistent Group-wide approach in order to obtain an overall view of the risks in life and health reinsurance. Our global underwriting guidelines provide underwriters with an appropriate framework for this purpose. Another major element of risk management in life and health reinsurance is the Market Consistent Embedded Value (MCEV). The MCEV is a ratio used for the valuation of life insurance and reinsurance business; it is calculated as the present value of the future shareholders' earnings from the worldwide life and health reinsurance portfolio plus the allocated capital. The calculation makes allowance as far as possible for all risks included in this business. For detailed information please see the MCEV report for 2014 published on our website.

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, currency risks, real estate risks, spread risks and credit risks.

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. Despite the conservative orientation of our investment portfolio, it profited substantially from movements in interest rates and spreads over the course of the year and consistently boosted its fair value reserves. The escalation levels of the trigger mechanism were not activated at any point in time.

The short-term loss probability measured as the "Value at Risk" (VaR) is another vital tool used for monitoring and managing market price risks. It is calculated on the basis of historical data, e.g. the volatility of the securities positions under own management and the correlation between these risks. As part of these calculations the decline in the fair value of our portfolio is simulated with a certain probability and within a certain period. The VaR of the Hannover Re Group determined in accordance with these principles specifies the decrease in the fair value of our securities portfolio under own management that with a probability of 95% will not be exceeded within ten trading days. A multi-factor model is used to calculate the VaR indicators for the Hannover Re Group. It is based on time series of selected representative market parameters (equity prices, yield curves, spread curves, exchange rates, commodity prices and macro-economic variables). All asset positions are mapped on the level of individual positions within the multi-factor model; residual risks (e.g. market price risks that are not directly explained by the multi-factor model) can be determined through back-calculation and are incorporated into the overall calculation. The model takes into account interest rate risks, credit and spread risks, systematic and specific equity risks, commodity risks and option-specific risks.

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

in EUR million	Szenario	Portfolio change on a fair value basis	Change in equity before tax
Equity securities and private equity	Share prices -10%	-79.4	-79.4
	Share prices -20%	-158.9	-158.9
	Share prices +10%	+79.4	+79.4
	Share prices +20%	+158.9	+158.9
Fixed-income securities	Yield increase +50 basis points	-771.3	-666.8
	Yield increase +100 basis points	-1,507.3	-1,303.0
	Yield decrease -50 basis points	+793.0	+683.9
	Yield decrease -100 basis points	+1,618.8	+1,395.9

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.

Share price risks derive from the possibility of unfavourable changes in the value of equities, equity derivatives or equity index derivatives in our portfolio. We hold such assets only on a very modest scale as part of strategic participations. The scenarios for changes in equity prices consequently have only extremely slight implications for our portfolio.

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.

Currency 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 currency risk. We regularly compare the liabilities per currency with the covering assets and optimise the currency coverage in light of various collateral conditions such as different accounting requirements by regrouping assets. Remaining currency surpluses are systematically quantified and monitored within the scope of economic modelling.

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 and the United States; each investment is preceded by detailed analyses of the property, manager and market in question.

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 situations on capital markets. A modest portion of our cash flows from the insurance business as well as currency risks arising because currency matching cannot be efficiently achieved are partially hedged using forward exchange transactions. Hannover Re holds further derivative financial instruments to hedge interest rate risks from loans taken out to finance real estate. 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 derivative transactions. The remaining exposures are controlled according to the restrictive parameters set out in the 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]

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	70.9	6,052.8	59.7	4,036.5	1.6	204.6	64.0	2,919.6
AA	15.0	1,282.4	35.7	2,415.5	15.2	1,984.3	14.9	677.8
A	9.3	797.1	2.8	189.6	42.9	5,606.7	10.5	476.8
BBB	3.7	319.1	1.4	91.5	33.1	4,320.7	6.0	274.3
< BBB	1.0	87.8	0.4	27.2	7.2	946.0	4.7	214.1
Total	**100.0**	**8,539.2**	**100.0**	**6,760.3**	**100.0**	**13,062.5**	**100.0**	**4,562.6**

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. This is reflected inter alia in the fact that within our portfolio of assets under own management the exposures to government bonds or instruments backed by sovereign guarantees issued by the so-called GIIPS states (Greece, Ireland, Italy, Portugal, Spain) amount to altogether just EUR 234.1 million on a fair value basis. This corresponds to a proportion of 0.6%. The individual countries account for the following shares: Spain EUR 125.7 million, Italy EUR 65.1 million, Portugal EUR 25.9 million and Ireland EUR 17.4 million. No impairments had to be taken on these holdings. Our portfolio does not contain any bonds of Greek issuers. On a fair value basis EUR 4,372.3 million of the corporate bonds held by our company were issued by entities in the financial sector. Of this amount, EUR 3,656.9 million was attributable to banks. The vast majority of these bank bonds (74.0%) 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. Since the business that we accept is not always fully retained, but instead portions are retroceded as necessary, the counterparty default risk is 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 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. 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 because we prefinance acquisition costs for our ceding companies. Our clients, retrocessionaires and broker relationships as well as our investments are therefore carefully evaluated and limited in light of credit considerations and are constantly monitored and controlled within the scope of our system of limits and thresholds. In terms of the Hannover Re Group's major companies, EUR 347.4 million (9.0%) of our accounts receivable from reinsurance business totalling EUR 3,849.0 million were older than 90 days as at the balance sheet date. The average default rate over the past three years was 0.1%.

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. As a derivation from our strategic principle "We manage risks actively", we act according to the following principles in relation to operational risks:

1. We integrate operational risk management into the company and its culture.
2. We manage operational risks proactively and sustainably.
3. We consider events and scenarios that cover the entire spectrum of operational risks.
4. We strive for appropriate risk reduction through our measures.
5. We manage within defined limits and create transparency through measurements.

With the aid of the Self-Assessment for Operational Risks we determine the maturity level of our operational risk management system and define action fields for improvements. The assessment is carried out, for example, by assessing the maturity level of the respective risk management function or of the risk monitoring and reporting. The system enables us, among other things, to prioritise operational risks and is used inter alia to calculate the capital commitment in our internal model.

The change in risk capital in the period under review can be attributed primarily to the increased business volume and the resulting higher exposure for operational risks.

Within the overall framework of operational risks we consider, in particular, business process risks, compliance risks, risks associated with sales channels and outsourcing of functions, fraud risks, personnel risks, information technology risks/information security risks and business interruption risks.

Business process risks are associated with the risk of deficient or flawed internal processes, which can arise as a consequence of an inadequate process organisation. We have defined criteria to evaluate the maturity level of the material processes, e.g. for the reserving process. This enables us to ensure that process risks are monitored. In cooperation with the process participants, the process owner evaluates the risks of the metaprocess and develops measures for known, existing risks. Data quality is also a highly critical success factor, especially in risk management, because – among other things – the validity of the results delivered by the internal model depends primarily on the data provided. The overriding goal of our data quality management is the sustainable improvement and safeguarding of data quality within the Hannover Re Group.

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

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 sales channels, although these are minimised through the careful selection of agencies, mandatory underwriting guidelines and regular checks.

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.

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.

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.

Information technology risks and information 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 or by way of training opportunities.

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. In the previous year, for example, we compiled a leaflet on correct behaviour in the event of a business interruption; this condenses in compact form the key information that all employees need to know (e. g. information channels in a crisis situation). Regular risk reporting to the Risk Committee and the Executive Board has also been put in place.

Other risks

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

The hallmark of emerging risks is that the content of such risks cannot as yet be reliably assessed – especially on the underwriting side with respect to our treaty portfolio. Such risks evolve gradually from weak signals to unmistakable tendencies. It is therefore vital to detect these risks at an early stage and then determine their relevance. For the purpose of early detection we have developed an efficient process that spans divisions and lines of business and we have ensured its linkage to risk management. Operational implementation is handled by an expert working group assembled specially for this task. The analyses performed by this working group are used Group-wide in order to pinpoint any necessary measures (e. g. the implementation of contractual exclusions or the development of new reinsurance products). By way of example, the risks associated with possible climate change are analysed by this working group. Global warming would have implications not only for natural perils, but also for human health, the world economy, agriculture and so on. These problematic issues may also be relevant to our treaty portfolio – in the form not just of risks but also opportunities, e. g. through increased demand for reinsurance products. Other emerging risks include nanotechnology, resource scarcity 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. The Group Strategy was reviewed in the previous year and the revised corporate strategy was unveiled to investors at the Investors' Day held in London on 23 October 2014. We have defined performance criteria and indicators for the operational implementation of the strategic guidelines; 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. In addition, the process for the management of strategic risks is assessed annually as part of the monitoring of business process risks.

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

The liquidity risk refers to the risk of being unable to meet our financial obligations when they become due. The liquidity risk consists of the refinancing risk, i. e. the necessary cash cannot be obtained or can only be raised at increased costs, and the market liquidity risk, meaning that financial market transactions can 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. In addition, we manage the liquidity of the portfolio by checking on each trading day the liquidity of the instruments contained therein; their underlying parameters are verified on a regular and ad hoc basis. These measures serve to effectively reduce the liquidity risk.

Opportunity report

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

Key elements in Hannover Re's opportunity management include its various market-specific innovations in the Life & Health and Property & Casualty reinsurance business groups. What is more, innovative and creative ideas are generated by our employees. If they can be successfully translated into additional profitable premium volume, such ideas 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 a stand-alone organisational unit for "Business Opportunity Management". This service unit deals exclusively and systematically with ideas and opportunities and it concentrates its activities on generating additional premium volume with profit potential. To this end, ideas are translated into business opportunities and business models with the backing of project teams, and these are then acted upon in cooperation with primary insurance partners. Such business approaches are subsequently evaluated and fleshed out more concretely by the "Business Opportunity Management" service unit. This unit also supports selected projects from the conceptual design of holistic business models right through to operational implementation or handover to line responsibility. The goal is to generate new business and thereby sustainably promote Hannover Re's profitable growth. Several initiatives and projects have grown out of some 100 ideas contributed by the global network since the unit was set up. As part of an attractive employee incentive scheme, a number of projects have been financially rewarded – including the opportunity management projects "Weather" and "Energy Savings Protect".

Since as long ago as 2010 the stand-alone service unit "Business Opportunity Management" has been assigned to the Chief Executive Officer's area of responsibility. This is a clear reflection of the considerable importance that Hannover Re attaches to opportunity management. The monitoring and active networking carried out by the innovative minds involved give 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 22 "Other risks"). The working group carries out qualitative assessments of emerging risks. As a result, however, not only are the potential risks analysed but also any available business opportunities. In the year under review, for example, issues such as general environmental pollution, climate change and associated questions of liability, e-cigarettes and the risks of lithium-ion batteries as well as cyber-risks were explored by the working group.

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 the exposure substantially exceeds the existing scope of coverage. 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 an assessment is made. Risk Management ensures that before it can be used or sold a new reinsurance product must be approved by the Executive Board.

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 brings together both qualitative and quantitative information for the purpose of effective risk monitoring. 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. Key monitoring indicators, reporting limits 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. Since 2010 we have been able to increase our total policyholders' surplus (hybrid capital, non-controlling interests and shareholders' equity) by 150%. In this context, the 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 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 culture promotes the development of appropriate risk monitoring systems and strategic risk management. The evaluation encompasses above all the areas of risk culture, risk controls, the management of emerging risks, risk models and strategic risk management. This external appraisal confirms the quality of our holistic approach to risk management. 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 Group Annual Report 2014.

Outlook

Forecast

- Very satisfactory development in property and casualty reinsurance
- Further substantial improvement in life and health reinsurance
- Rising premium volume expected in total business
- Return on investment of 3.0% for assets under own management is attainable
- Guidance for Group net income raised to a level of around EUR 950 million

Despite the challenging business conditions facing the international (re)insurance industry and the protracted low level of interest rates, it is Hannover Re's expectation that even in this environment it can continue to operate with sustained success. Based on constant exchange rates, the company anticipates growth in the range of 5% to 10% in gross premium income for its total business in the current financial year.

In property and casualty reinsurance we expect to book an increased premium volume – adjusted for exchange rate effects – in the full 2015 financial year despite our systematically practised policy of selective underwriting. As a financially robust reinsurer we still see encouraging business potential in a number of segments: special mention should be made here of Asia-Pacific markets, North and Latin America as well as business with agricultural risks. The areas of facultative and structured reinsurance also offer growth prospects. In view of the very pleasing premium development in the first half-year, we are confident that full-year growth in property and casualty reinsurance will be stronger than originally forecast.

The outcome of the treaty renewals as at 1 June and 1 July was also largely positive. This is traditionally the time of year when some parts of our business in North America, agricultural risks and the portfolio in Latin America come up for renewal. This was also the main renewal season for business in Australia, which passed off very successfully for Hannover Re in view of the increased market share secured by the company. Broadly speaking, we are also satisfied with the outcome of the renewals in Latin America and the Caribbean as at 1 July as well as with the treaty conditions that were obtained. Despite significant capacities in the natural catastrophe market for proportional and non-proportional covers, our extensive product range enabled us to act on new business opportunities in Latin America and the Caribbean as well as to further diversify our portfolio. In the area of agricultural risks, too, markets around the world are competitive. We nevertheless wrote attractive new business and expanded our good position in this market segment.

In North America the pressure on rates and conditions remains undiminished due to the very good results booked by both the primary and reinsurance sectors in the absence of large losses; the rate reductions were, however, smaller than anticipated. Stronger demand driven by the improved state of the economy was the key factor here.

Despite below-average natural catastrophe expenditure and relatively modest fire losses, the renewals in US property business passed off favourably. This is in part because, in view of our very good rating, ceding companies consider us a preferred partner to whom they offer the entire spectrum of business for underwriting. Rates for non-proportional reinsurance programmes that had been spared losses saw a decline of 5%, reflecting the currently prevailing competitive climate. For loss-impacted programmes, on the other hand, rate increases running into double-digit percentages were obtained in some cases. In US property catastrophe business the pressure on prices eased compared to the previous year's renewals. Conditions in proportional reinsurance remained largely stable. Although casualty business in the United States remains fiercely competitive, we were nevertheless able to act on attractive new opportunities – opened up, for example, by increased demand for coverage of cyber-risks. The development of our business in Canada, where we booked gratifying premium growth, was also satisfactory. Despite continued adherence to our selective underwriting policy, our overall premium volume for North America increased as at 1 July 2015.

Our targeted EBIT margin of at least 10% for our total Property & Casualty reinsurance business group remains unchanged. We are aiming for a combined ratio of less than 96%.

In life and health reinsurance we expect further promising business opportunities in the second half of the year. Most notably, the global (re)insurance industry is focused on the impending implementation of new solvency-based prudential regimes in Europe, South Africa and parts of Asia, and this is likely to generate fresh business prospects. The regulatory solvency requirements impose more rigorous standards on insurers' capital resources and risk management systems. As a result, our clients can be expected to take an increasingly keen interest in reinsurance concepts in the area of financial solutions. In this context, we put considerable emphasis on solutions that are individually tailored to provide capital relief and improve the solvency position of our clients.

In our assessment, longevity risks continue to offer attractive business opportunities. Hannover Re has already completed initial transactions in this area outside the United Kingdom and is confident that demand will continue to rise on the back of ongoing demographic shifts.

The markets of Asia as well as Eastern and Central Europe continue to offer interesting business prospects. A constantly expanding urban middle class is boosting demand for products that offer financial security for the family, coverage for disability and long-term care as well as retirement provision.

For the second half of 2015 our expectation of organic, currency-adjusted gross premium growth in our life and health reinsurance portfolio coupled with rising profitability remains unchanged. In addition, we continue to aim for a value of new business in excess of EUR 180 million. The target EBIT margins set for our reporting categories still apply, namely at least 2% for financial solutions and longevity business and at least 6% for mortality and morbidity business.

With regard to our IVC targets – which we use to map economic value creation –, we anticipate at least 2% xRoCA for property and casualty reinsurance and at least 3% xRoCA for life and health reinsurance.

The expected positive cash flow that we generate from the technical account and our investments should – subject to stable exchange rates and yield levels – lead to further growth in our asset portfolio. In the area of fixed-income securities our focus remains on the high quality and diversification of our portfolio. When it comes to the allocation of new investments resulting from cash flows and maturities, we are looking to gradually increase the shares of holdings in the category BBB- and in lower rating segments while at the same time investing proportionately more strongly in top-quality, highly liquid government bonds. The focus here remains primarily on stability while maintaining an adequate risk/return ratio, thereby enabling us to respond flexibly to general developments and opportunities that may present themselves. We are targeting a return on investment of 3.0% for 2015.

In view of the good results for the first half-year, we are raising our guidance for Group net income in the full 2015 financial year. Assuming that the burden of major losses does not significantly exceed the expected level of EUR 690 million and that there are no unforeseen downturns on capital markets, Hannover Re now anticipates Group net income in the order of EUR 950 million.

Hannover Re envisages a payout ratio in the range of 35% to 40% of its IFRS Group net income for the dividend in the current financial year. This figure could increase in light of capital management considerations if the company's comfortable level of capitalisation remains unchanged.

Events after the reporting date

Matters of special significance arising after the closing date for the quarterly consolidated financial statements are discussed in Section 7.6 of the notes "Events after the end of the quarter" on page 65.