somewhat different

# Half-yearly Financial Report 2016

hannover re®

# Key figures

| in EUR million | 2016 | | | | | 2015 | | |
|---|---|---|---|---|---|---|---|---|
| | 1.1.–31.3. | 1.4.–30.6. | +/– previous year | 1.1.–30.6. | +/– previous year | 1.4.–30.6. | 1.1.–30.6. | 31.12. |
| **Results** | | | | | | | | |
| Gross written premium | 4,263.6 | 4,020.2 | -4.0% | 8,283.8 | -3.5% | 4,186.3 | 8,586.5 | |
| Net premium earned | 3,542.0 | 3,624.6 | +1.0% | 7,166.7 | +2.1% | 3,587.5 | 7,019.4 | |
| Net underwriting result | 36.0 | (38.7) | | (2.7) | | (33.7) | (39.9) | |
| Net investment income | 366.2 | 378.5 | -1.2% | 744.8 | -6.8% | 383.1 | 798.8 | |
| Operating profit (EBIT) | 406.7 | 338.5 | -6.1% | 745.2 | -5.6% | 360.4 | 789.4 | |
| Group net income | 271.2 | 214.9 | -14.8% | 486.1 | -8.6% | 252.2 | 531.9 | |
| **Balance sheet** | | | | | | | | |
| Policyholders´ surplus | 10,551.6 | | | 10,627.0 | +3.5% | | 9,839.5 | 10,267.3 |
| Equity attributable to shareholders of Hannover Rück SE | 8,371.7 | | | 8,421.3 | +4.4% | | 7,672.6 | 8,068.3 |
| Non-controlling interests | 689.8 | | | 715.1 | +0.8% | | 677.4 | 709.1 |
| Hybrid capital | 1,490.1 | | | 1,490.6 | +0.1% | | 1,489.5 | 1,489.9 |
| Investments (excl. funds withheld by ceding companies) | 39,065.4 | | | 39,754.0 | +1.0% | | 37,399.6 | 39,346.9 |
| Total assets | 61,889.8 | | | 62,317.7 | -1.4% | | 64,962.7 | 63,214.9 |
| **Share** | | | | | | | | |
| Earnings per share (basic and diluted) in EUR | 2.25 | 1.78 | -14.8% | 4.03 | -8.6% | 2.09 | 4.41 | |
| Book value per share in EUR | 69.42 | | | 69.83 | +4.4% | | 63.62 | 66.90 |
| Share price at the end of the period in EUR | 102.40 | | | 93.81 | -11.2% | | 86.79 | 105.65 |
| Market capitalisation at the end of the period | 12,349.1 | | | 11,313.2 | -11.2% | | 10,466.6 | 12,741.1 |
| **Ratios** | | | | | | | | |
| Combined ratio (property and casualty reinsurance)[1] | 94.7% | 96.1% | | 95.4% | | 95.0% | 95.4% | |
| Large losses as percentage of net premium earned (property and casualty reinsurance)[2] | 2.8% | 15.8% | | 9.2% | | 6.7% | 5.1% | |
| Retention | 89.0% | 90.6% | | 89.8% | | 88.0% | 88.3% | |
| Return on investment[3] (excl. funds withheld by ceding companies) | 2.9% | 2.9% | | 2.9% | | 3.0% | 3.4% | |
| EBIT margin[4] | 11.5% | 9.3% | | 10.4% | | 10.0% | 11.2% | |
| Return on equity (after tax) | 13.2% | 10.2% | | 11.8% | | 12.5% | 14.0% | |

[1] Including funds withheld

[2] Hannover Re Group´s net share for natural catastrophes and other major losses in excess of EUR 10 million gross as a percentage of net premium earned

[3] Excluding effects from ModCo derivatives

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

Ulrich Wallin,
Chairman of the
Executive Board

# Dear shareholders, ladies and gentlemen,

The development of your company's business in the first half-year was satisfactory overall. We generated post-tax Group net income of EUR 486 million and hence put in place a good basis for achieving our full-year profit target of at least EUR 950 million. The result for the first six months benefited on the whole from pleasing investment income, solid results in life and health reinsurance and an acceptable performance in property and casualty reinsurance. The current underwriting result in property and casualty reinsurance has been adversely impacted by the high level of claims in the second quarter. In addition to the difficult state of the reinsurance market itself, with supply still clearly outstripping demand, a further factor is that the protracted low interest rate environment is substantially cutting into the returns that can be earned on investments. To date, we have succeeded in meeting our exacting targets despite this general business climate.

I would now like to discuss in greater detail the business results for the first half of 2016:

The gross written premium booked for the entire Group fell slightly short of the previous year's figure at EUR 8.3 billion; this was due to property and casualty reinsurance. As you are aware, in the current soft market for property and casualty reinsurance we attach greater importance to safeguarding the profitability of the business than to boosting premium income. We continued to be guided by this principle in the latest treaty renewals as at 1 June and 1 July of this year. As had already been observed in prior rounds of renewals, we did, however, see some indications of a bottoming out in reinsurance prices. This was particularly the case in North America, where we were able to write attractive new business. We also booked growth in specialty lines. On this basis, we generated premium growth of around 8 percent for our total volume of renewed treaty business.

On the claims side, the major loss incidence rose again for the first time in the second quarter of 2016 after several reporting periods with moderate losses. Particularly noteworthy here are the severe earthquakes in Ecuador, Japan and Taiwan, storms in Europe and devastating forest fires in Canada; there were also a number of loss events associated with individual risks. Altogether, net loss expenditure in the second quarter alone amounted to EUR 298 million; it thus came in far higher than our budgeted level of EUR 167 million. Total net major loss expenditure for the first half of the year amounted to EUR 353 million; in the comparable period the figure had been just EUR 197 million. Against this backdrop, the underwriting result decreased by around 3 percent and the operating profit (EBIT) of EUR 561 million fell slightly short of the previous year's period (EUR 584 million).

We are satisfied with the development of our business in life and health reinsurance in the first half of 2016. Coming in at just under EUR 180 million, another solid operating result (EBIT) was achieved. While the previous year's figure was around EUR 20 million higher, it had been assisted by a special effect of EUR 39 million stemming from recognition of a fee that became payable following a customer-initiated withdrawal from a transaction. The very positive underwriting performance was to some extent overshadowed by the adverse risk experiences of prior underwriting years in US mortality business. Premium income also developed in line with our expectations: adjusted for exchange rate effects, gross premium would have increased by 4 percent to EUR 3.8 billion.

We are seeing further stable demand in the area of longevity risks. This is being driven by the progressive demographic shift worldwide and the associated awareness of the need to take out private provision for old age. Coverage concepts for insurance products that reward a healthy lifestyle are coming to play an increasingly prominent role. We are a major player in the launch and further development of these so-called "vitality concepts".

In view of the volatile environment we are highly satisfied with developments on the investment side. Our portfolio of assets under own management increased again from EUR 39.3 billion as at 31 December 2015 to EUR 39.8 billion. Along with the challenges facing us as an investor on account of the protracted low level of interest rates, we also had to negotiate uncertainties on the markets resulting from the referendum held in the UK, in which a majority of the British population voted to leave the European Union – causing prices to plunge on global equity markets and prompting further declines in interest rate levels. Continued volatility must be anticipated on international capital markets, especially for as long as the consequences of the Brexit vote cannot be fully evaluated.

Despite these adverse market conditions we are thoroughly satisfied with the development of our ordinary investment income. Although it contracted somewhat from EUR 599 million to EUR 568 million, it should be borne in mind that the previous year's period had been assisted by a positive special effect of EUR 39 million. Income from assets under own management stood at EUR 569 million; the figure would be on a par with the previous year after factoring out the special effect. The return on investment of 2.9 percent for our assets under own management puts us exactly on pace to achieve our expected target.

Shareholders' equity rose to EUR 8.4 billion as at 30 June 2016 despite the dividend payment of EUR 573 million. The annualised return on equity amounted to 11.8 percent and thus continues to be above our minimum target. The decrease relative to the previous year can be attributed largely to the further rise in the average shareholders' equity. This was driven not only by the generated year-end profit but also by a further rise in the valuation reserves in our investment portfolio owing to even lower interest rates.

As I have already indicated, the challenges facing the reinsurance and capital markets are currently very considerable. We are nevertheless standing by our full-year guidance for Group net income of at least EUR 950 million. As always, this forecast is subject to the proviso that major loss expenditure does not significantly exceed the budgeted level of EUR 825 million and that there are no unforeseen distortions on capital markets.

I would like to thank you – also on behalf of my colleagues on the Executive Board – most sincerely for your trust in Hannover Re. Going forward, as in the past, our paramount concern will be to lead your company responsibly and securely into a continued profitable future.

Yours sincerely,

Ulrich Wallin
Chairman of the Executive Board

# Interim management report

# Report on economic position

## Business development

- Positive half-yearly result
- Currency-adjusted gross premium development as planned
- Both business groups deliver good profit contributions
- Pleasing investment income despite difficult environment

Hannover Re's reinsurance business developed satisfactorily in the first half of 2016.

Both business groups – namely Property & Casualty and Life & Health reinsurance – largely lived up to our expectations despite the ongoing intensely competitive environment. In view of the sustained rate erosion in property and casualty reinsurance we consistently adhered to our margin-oriented underwriting policy with respect to inadequately priced treaties. Against this backdrop, gross premium income contracted slightly.

Gross written premium in total business declined by 3.5% as at 30 June 2016 to EUR 8.3 billion (EUR 8.6 billion). Significant growth had been booked in the comparable period, although this was driven in part by a strong US dollar. At constant exchange rates a decrease of 1.5% would have been recorded. For the first half of the year we are thus in line with our expectations for the full financial year. The level of retained premium rose to 89.8% (88.3%). Net premium earned climbed slightly by 2.1% to EUR 7.2 billion (EUR 7.0 billion). At constant exchange rates growth would have come in at 4.3%.

In view of the volatile environment we are thoroughly satisfied with the development of our investments. Building on the already appreciable rise in 2015, our portfolio of assets under own management increased again to reach EUR 39.8 billion (31 December 2015: EUR 39.3 billion). Factoring out a positive special effect recorded in life and health reinsurance in the previous year, ordinary investment income would have remained stable at EUR 568.0 million (EUR 598.7 million). This performance is also gratifying because we successfully offset the inhibiting effect of the protracted low interest rate environment on potential returns through higher income from dividends, private equity investments and real estate. Interest on funds withheld and contract deposits retreated to EUR 175.6 million (EUR 197.4 million). Net realised gains rose to EUR 79.5 million (EUR 66.6 million). Our financial assets measured at fair value through profit or loss gave rise to net gains of EUR 20.5 million (-EUR 1.6 million) in the period under review. In addition to scheduled depreciation on real estate, somewhat higher impairments were taken due to appreciable price losses on equity markets – especially following the Brexit referendum. They amounted to EUR 48.1 million (EUR 14.7 million) in the period under review. Income from investments under own management totalled EUR 569.2 million (EUR 601.3 million) as at 30 June 2016. We are highly satisfied with this figure in light of the low interest rate level, increased impairment losses and the elimination of the special effect.

Despite the absence of the aforementioned special effect in life and health reinsurance, the operating profit (EBIT) for the first half-year 2016 was also positive at EUR 745.2 million (EUR 789.4 million). Group net income contracted by 8.6% to EUR 486.1 million (EUR 531.9 million). We are nevertheless satisfied with this result since we remain on course to achieve our full-year target. Earnings per share stood at EUR 4.03 (EUR 4.41).

Hannover Re's equity base remained robust as at 30 June 2016 on a level of EUR 8.4 billion (31 December 2015: EUR 8.1 billion) in spite of the dividend payment of EUR 572.8 million. The book value per share amounted to EUR 69.83 (31 December 2015: EUR 66.90). The annualised return on equity decreased to 11.8% (31 December 2015: 14.7%) owing to the further rise in shareholders' equity in the first half of the year.

# Results of operations, financial position and net assets

## Property and casualty reinsurance

- Property and casualty reinsurance remains intensely competitive
- Major loss budget almost fully utilised in the first half-year
- Underlying underwriting result adversely impacted by high claims level in the second quarter

Property and casualty reinsurance continues to be fiercely competitive; the supply of reinsurance coverage still far exceeds demand. While a number of sizeable loss events were recorded on the regional level, they failed to bring about any fundamental hardening on the markets. It remains the case that the healthy capital resources enjoyed by ceding companies, which enable them to retain more risks for own account, as well as the additional capacities originating from the ILS market – especially in US natural catastrophe business – are both factors exerting sustained pressure on prices and conditions.

In the treaty renewals as at 1 April we nevertheless achieved a satisfactory outcome thanks to our broad diversification. It is on this date that business in Japan is traditionally renegotiated; in addition, more modest treaty renewals – in terms of volume – are conducted in the markets of Australia, New Zealand, Korea and North America. While the price decline in some markets and segments was appreciable, we were still able to safeguard good profitability for our portfolio on the basis of our selective underwriting and our focus on existing client relationships. Furthermore, in some areas we were again able to act on attractive business opportunities, as a consequence of which the premium volume for the portfolio renewed as at 1 April grew by 9%.

The gross written premium for our total portfolio declined by 6.9% as at 30 June 2016 to EUR 4.6 billion (EUR 5.0 billion). At constant exchange rates the decrease would have been 5.6%. The level of retained premium was lower than in the corresponding period of the previous year at 88.2% (89.6%). Net premium earned contracted slightly to EUR 3.8 billion (EUR 3.9 billion); on a currency-adjusted basis it was unchanged at EUR 3.9 billion.

The major loss experience was considerably more intensive than in the previous year's period. This was particularly true of the second quarter, in which losses were substantially higher than our quarterly budget of EUR 167 million. We benefited, however, from loss reserves constituted with the unused major loss budget for the first quarter. Net expenditure on large losses for the first six months came in at altogether EUR 352.7 million, compared to just EUR 197.4 million in the previous year. The most expensive single loss event was the devastating wildfires in the Canadian province of Alberta at EUR 131.6 million. The severe earthquake in Ecuador resulted in a charge of EUR 56.9 million for our account. A number of smaller natural catastrophe events and man-made losses were also incurred.

Owing to the increased loss expenditure, the underwriting result for total property and casualty reinsurance fell by 2.6% to EUR 166.4 million (EUR 170.9 million); it nevertheless remains on an acceptable level. The combined ratio of 95.4% (95.4%) is positive and in line with our goal of staying below the 96% mark.

The investment income booked for property and casualty reinsurance from assets under own management retreated by a modest 2.5% to EUR 404.5 million (EUR 415.0 million).

The operating profit (EBIT) booked by the Property & Casualty reinsurance business group as at 30 June 2016 contracted slightly by 3.9% to EUR 560.9 million (EUR 583.7 million). Standing at 14.6% (15.0%), the EBIT margin again surpassed our minimum target of 10%. Group net income decreased to EUR 376.2 million (EUR 418.4 million). Earnings per share amounted to EUR 3.12 (EUR 3.47).

**Key figures for property and casualty reinsurance**

| in EUR million | 2016 | | | | | 2015 | |
|---|---|---|---|---|---|---|---|
| | 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 | 2,502.1 | 2,125.2 | -9.8% | 4,627.4 | -6.9% | 2,355.1 | 4,972.2 |
| Net premium earned | 1,961.3 | 1,877.1 | -6.7% | 3,838.4 | -1.4% | 2,011.9 | 3,894.2 |
| Underwriting result | 100.3 | 66.1 | -29.9% | 166.4 | -2.6% | 94.3 | 170.9 |
| Net investment income | 207.2 | 208.9 | -9.2% | 416.1 | -2.1% | 230.1 | 425.2 |
| Operating result (EBIT) | 299.7 | 261.3 | -20.5% | 560.9 | -3.9% | 328.5 | 583.7 |
| Group net income | 204.3 | 171.9 | -30.4% | 376.2 | -10.1% | 247.0 | 418.4 |
| Earnings per share in EUR | 1.69 | 1.43 | -30.4% | 3.12 | -10.1% | 2.05 | 3.47 |
| EBIT margin[1] | 15.3% | 13.9% | | 14.6% | | 16.3% | 15.0% |
| Combined ratio[2] | 94.7% | 96.1% | | 95.4% | | 95.0% | 95.4% |
| Retention | 87.9% | 88.5% | | 88.2% | | 90.3% | 89.6% |

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



## Life and health reinsurance

- Very good overall profitability partially overshadowed by negative risk experience in US mortality business of prior underwriting years
- Increasingly fierce competition and more exacting regulatory requirements necessitate innovative and customised reinsurance concepts

All in all, we are satisfied with the development of our life and health reinsurance business in the first half of 2016. Following a very good first quarter, the second quarter also lived up to our expectations.

In Germany the return on 10-year sovereign bonds turned negative for the first time. In addition, the reduction of the maximum actuarial interest rate to 0.9% for endowment life insurance and annuity products effective 1 January 2017 was officially announced. These developments clearly demonstrate the protracted difficult situation in the German life insurance market. Life insurers are coming under more and more pressure to adapt their product range in order to maintain the appeal of life insurance policies. By delivering individually tailored reinsurance solutions we strive to efficiently support our customers.

In the other markets of Northern and Western Europe conditions were similarly challenging. In these circumstances, we are satisfied with the development of our business. Our expectations in Eastern European markets were also fulfilled, and we take an upbeat view of the business prospects for the second half of the year.

In Asian markets developments varied widely from country to country. Japan, for example, finds itself – very much like Germany – facing an ageing population and a low interest rate environment. In China local regulatory requirements for the (re)insurance sector continue to become more exacting. In Malaysia, on the other hand, the launch of a new lifestyle insurance concept reflects the dynamic growth of the market. In India, too, the business development is pleasing. As an innovative reinsurer, we have successfully brought to completion various critical illness product solutions that are individually tailored to the needs of our customers.

The longevity sector is seeing continued growth in international activities. This can be attributed in part to the progressive global demographic shift and increasing awareness of the need to provide for old age. At the same time, more and more insurers and pension funds also find themselves in need of reinsurance solutions for their longevity portfolios. The competitive state of the UK market remains unchanged. Here, however, our long-standing expertise and extensive data resources give us a significant competitive advantage, hence enabling us to enjoy a thoroughly satisfactory development in the reporting period just ended.

The performance of our US mortality business fell short of expectations in the period under review due to specific effects in various blocks of business. Financial solutions business, on the other hand, developed better than planned. Furthermore, the health and special risk portfolio surpassed our expectations and made a pleasing positive contribution to what adds up to a solid result from our US business.

We booked a gross premium volume of EUR 3.7 billion (EUR 3.6 billion) as at 30 June 2016, corresponding to an increase of 1.2%. At unchanged exchange rates growth would have come in at 4.2%. The retention rose slightly to 91.8% (86.5%). Net premium earned climbed 6.5% to EUR 3.3 billion (EUR 3.1 billion). At constant exchange rates the increase would have been as much as 9.7%.

Investment income from assets under own management fell by 11.9% to EUR 158.1 million (EUR 179.4 million) in the reporting period just ended, although it should be borne in mind that the previous year's figure included a non-recurring special effect of EUR 39 million. Income from securities deposited with ceding companies amounted to EUR 164.1 million (EUR 187.3 million).

The operating result (EBIT) in life and health reinsurance as at 30 June 2016 reached a level of EUR 179.1 million (EUR 200.0 million). Profitability therefore declined by 10.5% compared to the previous year's period. Financial solutions business generated an EBIT margin of 16.3%, comfortably surpassing the target of 2%. Longevity business reached its targeted 2% EBIT margin at 2.1%. Mortality and morbidity business delivered an EBIT margin of 4.3%, hence missing the stated EBIT margin of 6%. Group net income totalled EUR 130.6 million (EUR 145.6 million). Earnings per share amounted to EUR 1.08 (EUR 1.21).

**Key figures for life and health reinsurance**

| in EUR million | 2016 | | | | | 2015 | |
|---|---|---|---|---|---|---|---|
| | 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 | 1,761.4 | 1,895.0 | +3.5% | 3,656.4 | +1.2% | 1,831.2 | 3,614.5 |
| Net premium earned | 1,580.7 | 1,747.5 | +10.9% | 3,328.1 | +6.5% | 1,575.2 | 3,124.8 |
| Investment income | 157.6 | 164.6 | +11.7% | 322.2 | -12.1% | 147.3 | 366.7 |
| Operating result (EBIT) | 105.5 | 73.6 | +175.5% | 179.1 | -10.5% | 26.7 | 200.0 |
| Net income after tax | 77.9 | 52.7 | +191.5% | 130.6 | -10.3% | 18.1 | 145.6 |
| Earnings per share in EUR | 0.65 | 0.44 | +191.5% | 1.08 | -10.3% | 0.15 | 1.21 |
| Retention | 90.5% | 93.0% | | 91.8% | | 85.0% | 86.5% |
| EBIT margin [1] | 6.7% | 4.2% | | 5.4% | | 1.7% | 6.4% |

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

## Investments

- High-quality diversified investment portfolio maintained
- Ordinary investment income stable after factoring out a special effect in the previous year
- Return on investment in line with expectations at 2.9%

The investment climate was once again challenging in the period under review and notable for considerable uncertainty associated with the UK referendum on leaving the European Union ("Brexit") which was to be held at the end of the quarter. At the end of June the uncertainty surrounding the outcome of this vote gave way to political and legal doubts over how exactly the process of leaving the EU will take place. On the whole, this situation led to sustained volatility and a generally low level of interest rates in most Western nations, and particularly in the United Kingdom, the European Union and the United States. All in all, fresh declines in yields were observed for German, UK and US fixed-income securities across virtually all durations. German government bonds are now being sold at clearly negative returns right through to the ten-year maturity segment.

Credit spreads on European and US corporate bonds widened in most rating classes, although they remained on a low level overall relative to the historical mean. In total, the unrealised gains on our fixed-income securities increased sharply to EUR 1,919.5 million (EUR 1,046.7 million). After the already significant growth recorded in 2015, our portfolio of assets under own management increased again in 2015 to EUR 39.8 billion (31 December 2015: EUR 39.3 billion). We adjusted the allocation of our assets to the individual classes of securities in the first half-year such that we further expanded our holding of fixed-income instruments rated BBB or lower while at the same time enlarging the proportion of government bonds in our portfolio. In this way we are able to increase the liquidity of our portfolio while maintaining the overall risk level of our fixed-income holdings virtually unchanged and continuing to generate stable returns. In addition, we had already streamlined our private equity portfolio in the first quarter by selling older investments. The modified duration of our portfolio of fixed-income securities changed only negligibly relative to the previous year at 4.5 (4.4).

The development of our ordinary investment income was highly gratifying in spite of the low interest rate environment: factoring out the special effect of EUR 39 million recognised in the previous year from life and health reinsurance, it remained on the level of the previous year's period at EUR 568.0 million (EUR 598.7 million). Interest on funds withheld and contract deposits fell to EUR 175.6 million (EUR 197.4 million).

Impairments of altogether EUR 48.1 million (EUR 14.7 million) were taken. This includes an amount of EUR 24.8 million (EUR 0.0 million) attributable to equities as a consequence of lower prices following the Brexit decision. Impairments of EUR 8.6 million (EUR 1.3 million) were taken on alternative investments. The impairments on fixed-income securities amounted to just EUR 0.7 million (EUR 2.4 million). Scheduled depreciation on directly held real estate increased to EUR 14.0 million (EUR 10.8 million), a reflection of our growing involvement in this area. The write-downs were not opposed by any write-ups (EUR 0.0 million).

The net balance of gains realised on disposals stood at EUR 79.5 million (EUR 66.6 million) and was in large measure attributable to regrouping activities as part of regular portfolio maintenance and to the streamlining of our private equity portfolio through the sale of older investments.

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 fair value changes of -EUR 1.6 million (-EUR 6.4 million) recognised in investment income. In economic terms we assume a neutral development for this item over time, and hence the volatility that can occur in specific quarters is of minimal relevance. Altogether, the positive fair value changes in our assets recognised at fair value through profit or loss amounted to EUR 20.5 million. This contrasted with negative fair value changes of EUR 1.6 million in the corresponding period of the previous year. The increase can be attributed principally to fair value changes in a bifurcated derivative as a consequence of repercussions of the Brexit vote on pound sterling interest rates.

Our investment income of EUR 744.8 million came in below the comparable period (EUR 798.8 million). In view of the low level of interest rates and the elimination of the positive effects recorded in the previous year, the result is nevertheless pleasing. Income from assets under own management accounted for an amount of EUR 569.2 million (EUR 601.3 million), producing an annualised average return of 2.9%; this corresponds exactly to our target for the full financial year.



**Net investment income**

| in EUR million | 2016 | | | | | 2015 | |
|---|---|---|---|---|---|---|---|
| | 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] | 268.5 | 299.6 | +4.6% | 568.0 | -5.1% | 286.5 | 598.7 |
| Result from participations in associated companies | 0.7 | 1.0 | -53.4% | 1.7 | -64.2% | 2.1 | 4.6 |
| Realised gains/losses | 43.6 | 35.9 | +66.1% | 79.5 | +19.3% | 21.6 | 66.6 |
| Appreciation [2] | 13.8 | 34.3 | | 48.1 | +226.8% | 6.5 | 14.7 |
| Change in fair value of financial instruments [3] | 10.5 | 10.1 | +11.8% | 20.5 | | 9.0 | (1.6) |
| Investment expenses | 26.7 | 25.8 | -8.0% | 52.5 | +0.4% | 28.0 | 52.3 |
| Net investment income from assets under own management | 282.7 | 286.5 | +0.6% | 569.2 | -5.3% | 284.7 | 601.3 |
| Net investment income from funds withheld | 83.5 | 92.1 | -6.5% | 175.6 | -11.1% | 98.4 | 197.4 |
| **Total investment income** | **366.2** | **378.5** | **-1.2%** | **744.8** | **-6.8%** | **383.1** | **798.8** |

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 Group-wide risk management system gives us a transparent overview of the current risk situation at all times and that we fulfil the requirements placed on the risk management system by 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

Our current corporate strategy encompasses ten guiding principles that safeguard the realisation of our vision "Long-term success in a competitive business" across the various divisions. 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 a comfortable level of capital adequacy under Solvency II.
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: The reform of insurance supervision law in Europe took place on 1 January 2016. 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. Hannover Re has implemented the new requirements. 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). On the other hand, insurance companies in Switzerland, Australia, Bermuda, Brazil, Canada, Mexico and the United States have been granted equivalence status for their insurance supervision standards relative to Solvency II for the purpose of conducting their business activities in the EU. In return, EU insurance undertakings are able to adopt the regulatory regimes of the aforementioned countries for their business transacted in such markets in order to comply with Solvency II.

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).

In the event of the United Kingdom leaving the European Union we would initially anticipate a transitional period in which the contracts existing between British and EU companies can continue under the same legal conditions. For this reason we do not expect any immediate implications for our customer relationships. It is currently impossible to foresee what role the UK might take in the EU after such a transitional period. On the investment side we expect to see increased volatility on equity and credit markets right across Europe. We take the view, however, that we are suitably prepared with our rather defensively oriented investment posture.

## 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% required under Solvency II.

The Hannover Re Group uses an internal capital model approved by the Federal Financial Supervisory Authority (BaFin) to calculate its solvency requirements. This model has already been used successfully for several years in the risk management and enterprise management of the Hannover Re Group. In contrast to a standard model, our internal capital model enables us to optimally map the risk structure of our reinsurance business and hence also to continue to efficiently fulfil our regulatory capital requirements under Solvency II. 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 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 requirements set out in the amended Insurance Supervision Act for risk management as well as international standards and developments relating to appropriate enterprise management.

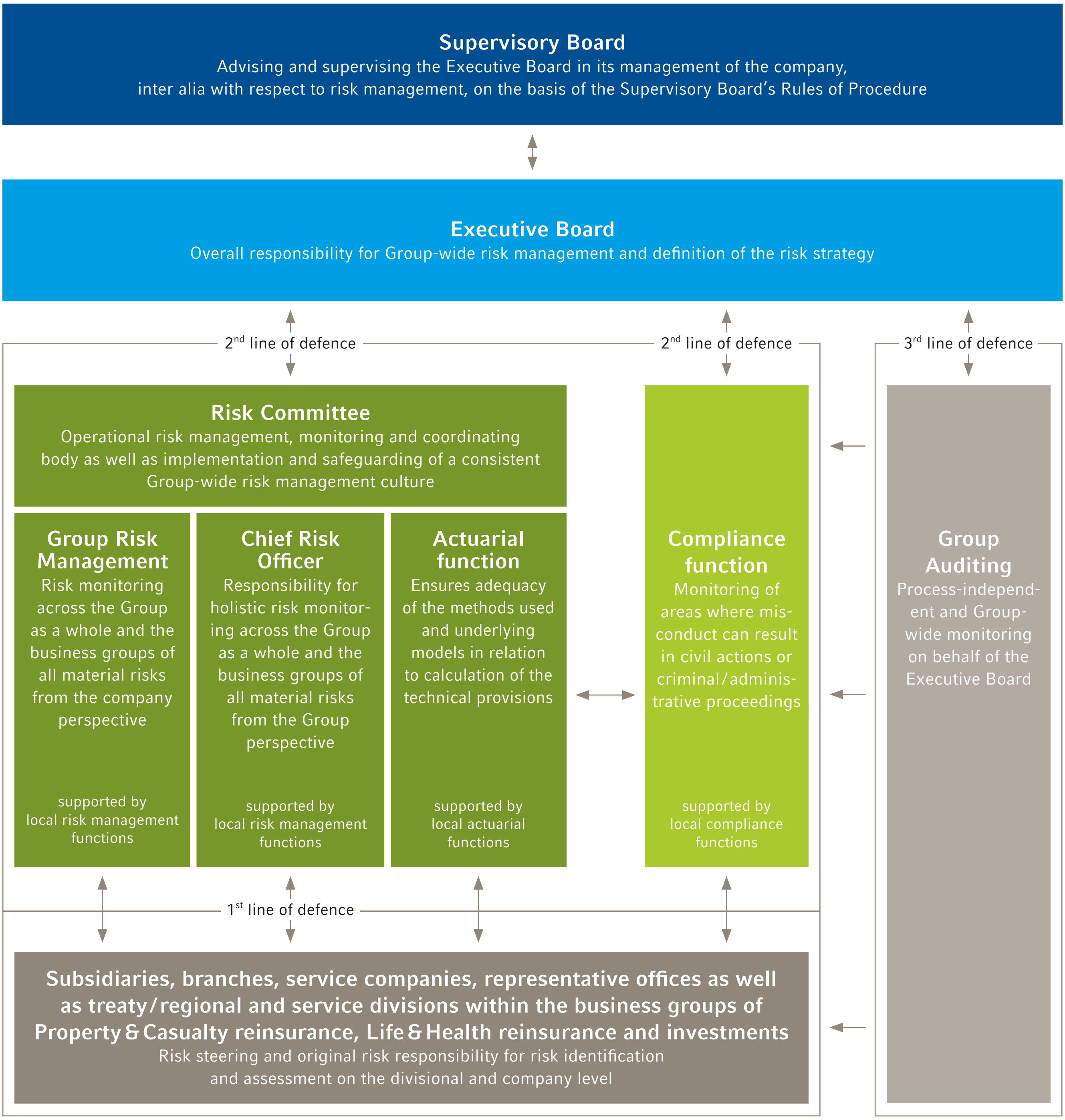
### Risk-bearing capacity concept

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

### 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

Central functions of risk monitoring and steering




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. This is rounded off by clearly defined interfaces between the various areas of the company.

## 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. This also includes the company's annual "Own Risk and Solvency Assessment" (ORSA), which constitutes a central risk report. 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).

## 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 control system, including its process-integrated procedures.

# 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. 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 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 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Combined ratio (property and casualty reinsurance) | 95.4 | 94.4 | 94.7 | 94.9 | 95.8 | 104.3 | 98.2 | 96.6 | 95.4 | 99.7 | 100.8 |
| Thereof catastrophe losses [1] | 9.2 | 7.1 | 6.1 | 8.4 | 7.0 | 16.5 | 12.3 | 4.6 | 10.7 | 6.3 | 2.3 |

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

## 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.

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

## Market risks

Faced with a challenging capital market climate, particularly high importance attaches to preserving the value of assets under own management and the stability of the return. Hannover Re's portfolio is therefore guided by the principles of a balanced risk/return profile and broad diversification. Based on a risk-averse asset mix, the investments reflect both the currencies and durations of our liabilities. Market price risks include equity risks, interest rate risks, 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.

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 | Scenario | Portfolio change on a fair value basis | Change in equity before tax |
|---|---|---|---|
| Equity securities and private equity | Share prices -10% | -153.9 | -153.9 |
| | Share prices -20% | -307.9 | -307.9 |
| | Share prices +10% | +153.9 | +153.9 |
| | Share prices +20% | +307.9 | +307.9 |
| | | | |
| Fixed-income securities | Yield increase +50 basis points | -789.8 | -697.6 |
| | Yield increase +100 basis points | -1,543.0 | -1,362.6 |
| | Yield decrease -50 basis points | +813.7 | +717.1 |
| | Yield decrease -100 basis points | +1,661.4 | +1,463.7 |
| | | | |
| Real estate | Real estate market values -10% | -176.4 | -80.7 |
| | Real estate market values +10% | +176.4 | +39.9 |

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. In addition to such assets held hitherto on only a very modest scale as part of strategic participations, we have acted on market opportunities in the course of the year to rebuild a broadly diversified equity 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. Part 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. In addition, Hannover Re has taken out hedges in the form of equity swaps to hedge price risks in connection with the stock appreciation rights granted under the Share Award Plan. These are intended to neutralise changes in the fair values of the awarded stock appreciation rights. Contracts are concluded with reliable counterparties and for the most part collateralised on a daily basis so as to avoid credit risks associated with the use of such 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 | 75.4 | 8,118.1 | 65.1 | 4,474.6 | 1.3 | 163.2 | 67.4 | 2,538.0 |
| AA | 12.2 | 1,314.6 | 29.6 | 2,035.3 | 13.9 | 1,715.1 | 13.9 | 522.1 |
| A | 7.1 | 759.4 | 2.6 | 178.6 | 38.6 | 4,775.1 | 6.8 | 256.7 |
| BBB | 4.6 | 490.6 | 1.2 | 84.6 | 39.1 | 4,831.4 | 8.7 | 326.8 |
| < BBB | 0.8 | 83.3 | 1.5 | 104.1 | 7.1 | 875.3 | 3.2 | 121.3 |
| **Total** | **100.0** | **10,765.9** | **100.0** | **6,877.2** | **100.0** | **12,360.2** | **100.0** | **3,764.9** |

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 211.4 million on a fair value basis. This corresponds to a proportion of 0.5%. The individual countries account for the following shares: Spain EUR 124.6 million, Italy EUR 65.1 million and Portugal EUR 25.6 million. No impairments had to be taken on these holdings. Our portfolio does not contain any Greek or Irish government bonds. On a fair value basis EUR 3,938.7 million of the corporate bonds held by our company were issued by entities in the financial sector. Of this amount, EUR 3,224.4 million was attributable to banks. The vast majority of these bank bonds (73.2%) 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 253.8 million (6.6%) of our accounts receivable from reinsurance business totalling EUR 3,841.1 million were older than 90 days as at the balance sheet date. The average default rate over the past four years was 0.3%.

## 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.

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.

In addition, we use proactive sanctions screening to filter out individuals from our customer portfolio with whom the Hannover Re Group does not enter into any contractual relationship on account of a criminal or terrorist background. In this way ceding companies from countries which are subject to an embargo are also excluded as clients.

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.

Outsourcing risks can result from the 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, including for example information campaigns and training activities.

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 general terms, regular risk reporting to the Risk Committee and the Executive Board takes place in this regard.

## 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, technology risks and resource scarcity.

Strategic risks derive from a possible imbalance between the corporate strategy of the Hannover Re Group and the constantly changing general business environment. Such an imbalance might be caused, for example, by incorrect strategic policy decisions, a failure to consistently implement the defined strategies and business plans or an incorrect allocation of resources. We therefore regularly review our corporate strategy in a multi-step procedure and adjust our processes and the resulting guidelines as and when required. We have defined performance criteria and indicators for 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 an organisational unit for "Innovation 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 "Innovation Management" unit. This organisational 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.

A new project named "Journey Re" is upcoming in the second half of 2016. This will create a connection to students, university graduates and young professionals with a view to developing new business models for primary insurance and reinsurance and translating the creativity that exists outside the industry into new business opportunities. The liaison offices for the project will be spread around the globe in Berlin, Dublin, Boston and Johannesburg.

Since as long ago as 2010 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 it. 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.

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 2011 we have been able to increase our total policyholders' surplus (hybrid capital, non-controlling interests and shareholders' equity) by more than 50%. 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 and received the highest possible rating of "Very Strong". Special attention is paid here to our established risk culture, which promotes the development of appropriate risk monitoring systems and strategic risk management. The evaluation encompasses in particular 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 2015.

# Outlook for 2016

## Forecast

- Stable or slightly reduced premium volume expected in total business
- Return on investment of 2.9% targeted for assets under own management
- Group net income forecast to be in the order of at least EUR 950 million

Despite the challenging business conditions facing the international (re)insurance industry and the protracted low level of interest rates, Hannover Re expects to be able to operate with sustained success even in this environment. Based on constant exchange rates, we anticipate stable or slightly reduced gross premium volume for our total business in the current financial year.

In property and casualty reinsurance we expect to book slightly lower premium income – adjusted for exchange rate effects. This assumption is based on our selective underwriting policy, under which we only write business that meets our margin requirements.

The outcome of the treaty renewals as at 1 June and 1 July 2016 was broadly positive. It is on these dates that parts of the North American portfolio, agricultural risks and business from Latin America traditionally come up for renewal. This was also the main renewal season for business in Australia, where Hannover Re successfully enlarged its portfolio by writing a large-volume new treaty.

The treaty renewals in Latin America and the Caribbean as at 1 July 2016 were notable overall for price declines. Surplus capacity for natural catastrophe covers continues to be available, albeit on a somewhat reduced scale. The losses from the earthquake in Ecuador led to rate improvements, although these were only seen in the impacted region. We scaled back our involvement in agricultural risks owing to rate erosion in this business.

In North America the trend seen in previous renewals was confirmed. Large losses from natural disasters and man-made events were again notable for their absence. Rate reductions were nevertheless not as marked as expected in some areas. As had already been observed in the 1 January and 1 April renewals, there were indications of prices bottoming out – both in the property and the casualty lines. Adequate rate improvements of between 5% and 15% were booked for loss-impacted non-proportional treaties. Casualty business was still intensely competitive in most lines, although we were able to act on new opportunities – for example in connection with the coverage of cyber risks. The forest fires in the province of Alberta – the largest market loss in Canadian history – led to the anticipated sharp rate increases in the property sector. In US property catastrophe business the pressure on prices eased compared to the previous year's renewals. Prices moved in a range of between -3% and +3%. Hannover Re systematically adhered to its pricing discipline, focused on target customers and continued to underweight its share of US catastrophe business. Rates in Europe and Latin America remained under pressure.

Premium growth of 8% was booked for the total volume of treaty business renewed as at 1 June / 1 July.

For the full 2016 financial year we anticipate a good underwriting result in property and casualty reinsurance that should be roughly on a par with 2015. This is conditional on major loss expenditure remaining within the budgeted level of EUR 825 million. We are aiming for a combined ratio of less than 96%. The targeted EBIT margin for property and casualty reinsurance is at least 10%.

In life and health reinsurance, too, we anticipate attractive business opportunities throughout the remainder of 2016. This is, however, subject to the proviso that unforeseeable changes in large-volume treaties can have significant implications – both positive and negative – for the total premium volume. In view of opportunities that are already opening up to generate further profitable new business, we nevertheless anticipate a largely stable premium volume. The value of new business should be in excess of EUR 220 million. Our targeted EBIT margins remain unchanged at 2% for financial solutions and longevity business and 6% for mortality and morbidity business.

With regard to our IVC targets – which we use internally to map economic value creation –, we are aiming for returns that exceed the cost of capital both in property and casualty reinsurance and in 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 portfolios. The historically low reinvestment returns in the fixed-income portfolio as a consequence of the Brexit vote have resulted in an even more complex situation than at the beginning of 2016. Despite this, we are still targeting a return on investment of 2.9% for 2016.

Assuming that the burden of major losses does not significantly exceed the expected level and that there are no unforeseen distortions on capital markets, Hannover Re continues to anticipate Group net income of at least EUR 950 million for the current financial year.

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

# Events after the reporting date

No significant events occurred after the balance sheet date.

# Consolidated financial statements

# Consolidated balance sheet as at 30 June 2016

| **Assets**<br>in EUR thousand | 30.6.2016 | 31.12.2015 |
|---|---|---|
| Fixed-income securities – held to maturity | 652,150 | 1,007,665 |
| Fixed-income securities – loans and receivables | 2,819,395 | 2,869,865 |
| Fixed-income securities – available for sale | 30,195,423 | 29,616,448 |
| Fixed-income securities – at fair value through profit or loss | 101,229 | 108,982 |
| Equity securities – available for sale | 829,202 | 452,108 |
| Other financial assets – at fair value through profit or loss | 41,435 | 39,602 |
| Real estate and real estate funds | 1,668,774 | 1,673,958 |
| Investments in associated companies | 115,781 | 128,008 |
| Other invested assets | 1,512,515 | 1,544,533 |
| Short-term investments | 813,178 | 1,113,130 |
| Cash and cash equivalents | 1,004,942 | 792,604 |
| **Total investments and cash under own management** | **39,754,024** | **39,346,903** |
| Funds withheld | 12,710,089 | 13,801,845 |
| Contract deposits | 209,666 | 188,604 |
| **Total investments** | **52,673,779** | **53,337,352** |
| Reinsurance recoverables on unpaid claims | 1,513,226 | 1,395,281 |
| Reinsurance recoverables on benefit reserve | 997,168 | 1,367,173 |
| Prepaid reinsurance premium | 209,382 | 164,023 |
| Reinsurance recoverables on other technical reserves | 3,044 | 8,687 |
| Deferred acquisition costs | 2,017,978 | 2,094,671 |
| Accounts receivable | 3,799,222 | 3,665,937 |
| Goodwill | 63,809 | 60,244 |
| Deferred tax assets | 357,208 | 433,500 |
| Other assets | 673,994 | 680,543 |
| Accrued interest and rent | 8,889 | 7,527 |
| **Total assets** | **62,317,699** | **63,214,938** |

| **Liabilities**<br>in EUR thousand | **30.6.2016** | 31.12.2015 |
|---|---|---|
| Loss and loss adjustment expense reserve | 26,846,594 | 26,556,388 |
| Benefit reserve | 11,504,421 | 12,206,699 |
| Unearned premium reserve | 3,429,786 | 3,159,363 |
| Other technical provisions | 294,678 | 325,528 |
| Funds withheld | 581,262 | 1,265,035 |
| Contract deposits | 4,250,780 | 4,682,484 |
| Reinsurance payable | 1,341,439 | 1,390,006 |
| Provisions for pensions | 188,534 | 150,299 |
| Taxes | 214,830 | 271,674 |
| Deferred tax liabilities | 2,102,285 | 1,932,722 |
| Other liabilities | 632,165 | 698,933 |
| Long-term debt and subordinated capital | 1,794,559 | 1,798,337 |
| **Total liabilities** | **53,181,333** | **54,437,468** |
| Shareholders' equity | | |
| Common shares | 120,597 | 120,597 |
| Nominal value: 120,597<br>Conditional capital: 60,299 | | |
| Additional paid-in capital | 724,562 | 724,562 |
| **Common shares and additional paid-in capital** | **845,159** | **845,159** |
| Cumulative other comprehensive income | | |
| Unrealised gains and losses on investments | 1,310,590 | 712,001 |
| Cumulative foreign currency translation adjustment | 386,663 | 509,189 |
| Changes from hedging instruments | (6,315) | (1,217) |
| Other changes in cumulative other comprehensive income | (58,155) | (36,571) |
| **Total other comprehensive income** | **1,632,783** | **1,183,402** |
| Retained earnings | 5,943,319 | 6,039,783 |
| **Equity attributable to shareholders of Hannover Rück SE** | **8,421,261** | **8,068,344** |
| Non-controlling interests | 715,105 | 709,126 |
| **Total shareholders' equity** | **9,136,366** | **8,777,470** |
| **Total liabilities and shareholders´ equity** | **62,317,699** | **63,214,938** |

# Consolidated statement of income as at 30 June 2016

| in EUR thousand | 1.4.–30.6.2016 | 1.1.–30.6.2016 | 1.4.–30.6.2015 | 1.1.–30.6.2015 |
|---|---|---|---|---|
| Gross written premium | 4,020,205 | 8,283,791 | 4,186,311 | 8,586,536 |
| Ceded written premium | 377,774 | 848,580 | 501,398 | 1,004,296 |
| Change in gross unearned premium | (13,282) | (316,951) | (105,622) | (618,181) |
| Change in ceded unearned premium | (4,505) | 48,402 | 8,215 | 55,297 |
| **Net premium earned** | **3,624,644** | **7,166,662** | **3,587,506** | **7,019,356** |
| Ordinary investment income | 299,563 | 568,026 | 286,453 | 598,678 |
| Profit/loss from investments in associated companies | 987 | 1,652 | 2,118 | 4,619 |
| Realised gains and losses on investments | 35,950 | 79,528 | 21,646 | 66,644 |
| Change in fair value of financial instruments | 10,072 | 20,539 | 9,013 | (1,625) |
| Total depreciation, impairments and appreciation of investments | 34,317 | 48,080 | 6,526 | 14,712 |
| Other investment expenses | 25,765 | 52,480 | 28,010 | 52,265 |
| **Net income from investments under own management** | **286,490** | **569,185** | **284,694** | **601,339** |
| Income/expense on funds withheld and contract deposits | 92,057 | 175,607 | 98,418 | 197,427 |
| **Net investment income** | **378,547** | **744,792** | **383,112** | **798,766** |
| Other technical income | 22 | 226 | 436 | 1,025 |
| **Total revenues** | **4,003,213** | **7,911,680** | **3,971,054** | **7,819,147** |
| Claims and claims expenses | 2,636,051 | 5,317,352 | 2,710,539 | 5,423,386 |
| Change in benefit reserves | 180,363 | 155,519 | 40,556 | (810) |
| Commission and brokerage, change in deferred acquisition costs | 733,455 | 1,484,117 | 760,027 | 1,422,810 |
| Other acquisition costs | 3,212 | 7,048 | 858 | 2,220 |
| Other technical expenses | 446 | 788 | 180 | 2,225 |
| Administrative expenses | 109,859 | 204,765 | 109,454 | 210,438 |
| **Total technical expenses** | **3,663,386** | **7,169,589** | **3,621,614** | **7,060,269** |
| Other income and expenses | (1,292) | 3,114 | 10,949 | 30,509 |
| **Operating profit (EBIT)** | **338,535** | **745,205** | **360,389** | **789,387** |
| Interest on hybrid capital | 18,058 | 35,905 | 23,456 | 48,453 |
| **Net income before taxes** | **320,477** | **709,300** | **336,933** | **740,934** |
| Taxes | 92,894 | 194,855 | 58,486 | 184,162 |
| **Net income** | **227,583** | **514,445** | **278,447** | **556,772** |
| thereof | | | | |
| Non-controlling interest in profit and loss | 12,688 | 28,373 | 26,255 | 24,869 |
| **Group net income** | **214,895** | **486,072** | **252,192** | **531,903** |
| **Earnings per share (in EUR)** | | | | |
| Basic earnings per share | 1.78 | 4.03 | 2.09 | 4.41 |
| Diluted earnings per share | 1.78 | 4.03 | 2.09 | 4.41 |

# Consolidated statement of comprehensive income as at 30 June 2016

| in EUR thousand | 1.4.–30.6.2016 | 1.1.–30.6.2016 | 1.4.–30.6.2015 | 1.1.–30.6.2015 |
|---|---|---|---|---|
| **Net income** | **227,583** | **514,445** | **278,447** | **556,772** |
| **Not reclassifiable to the consolidated statement of income** | | | | |
| **Actuarial gains and losses** | | | | |
| Gains (losses) recognised directly in equity | (12,798) | (35,284) | 37,839 | 19,513 |
| Tax income (expense) | 4,177 | 11,512 | (12,118) | (6,275) |
| | **(8,621)** | **(23,772)** | **25,721** | **13,238** |
| **Income and expense recognised directly in equity that cannot be reclassified** | | | | |
| Gains (losses) recognised directly in equity | (12,798) | (35,284) | 37,839 | 19,513 |
| Tax income (expense) | 4,177 | 11,512 | (12,118) | (6,275) |
| | **(8,621)** | **(23,772)** | **25,721** | **13,238** |
| **Reclassifiable to the consolidated statement of income** | | | | |
| **Unrealised gains and losses on investments** | | | | |
| Gains (losses) recognised directly in equity | 448,492 | 888,548 | (629,703) | (266,320) |
| Transferred to the consolidated statement of income | (6,992) | (48,112) | (37,167) | (83,324) |
| Tax income (expense) | (119,581) | (219,610) | 201,650 | 96,381 |
| | **321,919** | **620,826** | **(465,220)** | **(253,263)** |
| **Currency translation** | | | | |
| Gains (losses) recognised directly in equity | 120,604 | (126,441) | (187,709) | 362,652 |
| Transferred to the consolidated statement of income | – | – | – | – |
| Tax income (expense) | (2,455) | 2,749 | 15,832 | (27,743) |
| | **118,149** | **(123,692)** | **(171,877)** | **334,909** |
| **Changes from the measurement of associated companies** | | | | |
| Gains (losses) recognised directly in equity | 2 | 2 | (4) | 388 |
| Transferred to the consolidated statement of income | – | (1,251) | – | (424) |
| | **2** | **(1,249)** | **(4)** | **(36)** |
| **Changes from hedging instruments** | | | | |
| Gains (losses) recognised directly in equity | (580) | (5,902) | (1,621) | 2,200 |
| Tax income (expense) | 241 | 761 | 336 | (884) |
| | **(339)** | **(5,141)** | **(1,285)** | **1,316** |
| **Reclassifiable income and expense recognised directly in equity** | | | | |
| Gains (losses) recognised directly in equity | 568,518 | 756,207 | (819,037) | 98,920 |
| Transferred to the consolidated statement of income | (6,992) | (49,363) | (37,167) | (83,748) |
| Tax income (expense) | (121,795) | (216,100) | 217,818 | 67,754 |
| | **439,731** | **490,744** | **(638,386)** | **82,926** |
| **Total income and expense recognised directly in equity** | | | | |
| Gains (losses) recognised directly in equity | 555,720 | 720,923 | (781,198) | 118,433 |
| Transferred to the consolidated statement of income | (6,992) | (49,363) | (37,167) | (83,748) |
| Tax income (expense) | (117,618) | (204,588) | 205,700 | 61,479 |
| | **431,110** | **466,972** | **(612,665)** | **96,164** |
| **Total recognised income and expense** | **658,693** | **981,417** | **(334,218)** | **652,936** |
| thereof | | | | |
| Attributable to non-controlling interests | 26,662 | 46,074 | 4,811 | 18,548 |
| Attributable to shareholders of Hannover Rück SE | 632,031 | 935,343 | (339,029) | 634,388 |

# Consolidated statement of changes in shareholders' equity as at 30 June 2016

| in EUR thousand | Common shares | Additional paid-in capital | Other reserves (cumulative other comprehensive income) | |
|---|---|---|---|---|
| | | | Unrealised gains/losses | Currency translation |
| **Balance as at 1.1.2015** | **120,597** | **724,562** | **1,169,255** | **190,454** |
| Changes in the consolidated group | – | – | – | – |
| Capital increase/additions | – | – | – | – |
| Acquisition/disposal of treasury shares | – | – | – | – |
| Total income and expense recognised directly in equity | – | – | (240,176) | 329,442 |
| Net income | – | – | – | – |
| Dividends paid | – | – | – | – |
| **Balance as at 30.6.2015** | **120,597** | **724,562** | **929,079** | **519,896** |
| | | | | |
| **Balance as at 1.1.2016** | **120,597** | **724,562** | **712,001** | **509,189** |
| Changes in ownership interest with no change of control status | – | – | – | 110 |
| Acquisition/disposal of treasury shares | – | – | – | – |
| Total income and expense recognised directly in equity | – | – | 598,589 | (122,636) |
| Net income | – | – | – | – |
| Dividends paid | – | – | – | – |
| **Balance as at 30.6.2016** | **120,597** | **724,562** | **1,310,590** | **386,663** |

| Continuation: Other reserves (cumulative other comprehensive income) | | Retained earnings | Equity attributable to shareholders of Hannover Rück SE | Non-controlling interests | Total shareholders' equity |
|---|---|---|---|---|---|
| Hedging instruments | Other | | | | |
| **(8,748)** | **(48,288)** | **5,402,926** | **7,550,758** | **702,202** | **8,252,960** |
| – | – | – | – | (56) | (56) |
| – | – | – | – | 58 | 58 |
| – | – | (10) | (10) | – | (10) |
| 1,274 | 11,945 | – | 102,485 | (6,321) | 96,164 |
| – | – | 531,903 | 531,903 | 24,869 | 556,772 |
| – | – | (512,538) | (512,538) | (43,395) | (555,933) |
| (7,474) | (36,343) | 5,422,281 | 7,672,598 | 677,357 | 8,349,955 |
| | | | | | |
| **(1,217)** | **(36,571)** | **6,039,783** | **8,068,344** | **709,126** | **8,777,470** |
| – | – | (9,687) | (9,577) | (1,337) | (10,914) |
| – | – | (13) | (13) | – | (13) |
| (5,098) | (21,584) | – | 449,271 | 17,701 | 466,972 |
| – | – | 486,072 | 486,072 | 28,373 | 514,445 |
| – | – | (572,836) | (572,836) | (38,758) | (611,594) |
| (6,315) | (58,155) | 5,943,319 | 8,421,261 | 715,105 | 9,136,366 |

# Consolidated cash flow statement as at 30 June 2016

| in EUR thousand | 1.1.–30.6.2016 | 1.1.–30.6.2015 |
|---|---|---|
| **I. Cash flow from operating activities** | | |
| Net income | 514,445 | 556,772 |
| Appreciation/depreciation | 71,454 | 21,357 |
| Net realised gains and losses on investments | (79,528) | (66,644) |
| Change in fair value of financial instruments (through profit or loss) | (20,539) | 1,625 |
| Realised gains and losses on deconsolidation | (1,404) | (424) |
| Income from the recognition of negative goodwill | (8,595) | – |
| Amortisation of investments | 40,730 | 54,982 |
| Changes in funds withheld | (141,771) | (838,937) |
| Net changes in contract deposits | (379,225) | 563,128 |
| Changes in prepaid reinsurance premium (net) | 271,029 | 562,403 |
| Changes in tax assets/provisions for taxes | 40,911 | 29,154 |
| Changes in benefit reserve (net) | 284,727 | (23,908) |
| Changes in claims reserves (net) | 479,425 | 750,266 |
| Changes in deferred acquisition costs | 31,235 | (101,880) |
| Changes in other technical provisions | (24,909) | (15,538) |
| Changes in clearing balances | (234,255) | (533,933) |
| Changes in other assets and liabilities (net) | (96,729) | (109,979) |
| **Cash flow from operating activities** | **747,001** | **848,444** |

| in EUR thousand | 1.1.–30.6.2016 | 1.1.–30.6.2015 |
|---|---|---|
| **II. Cash flow from investing activities** | | |
| Fixed-income securities – held to maturity | | |
| Maturities | 338,632 | 515,198 |
| Purchases | – | – |
| Fixed-income securities – loans and receivables | | |
| Maturities, sales | 75,380 | 111,213 |
| Purchases | (36,836) | (97,001) |
| Fixed-income securities – available for sale | | |
| Maturities, sales | 5,354,187 | 5,036,713 |
| Purchases | (5,530,034) | (5,211,552) |
| Fixed-income securities – at fair value through profit or loss | | |
| Maturities, sales | 16,765 | 18,358 |
| Purchases | (10,688) | (36,354) |
| Equity securities – available for sale | | |
| Sales | 23,087 | 3,467 |
| Purchases | (409,650) | (4,038) |
| Other financial assets – at fair value through profit or loss | | |
| Sales | 26,637 | 47,228 |
| Purchases | (10,445) | (10,982) |
| Other invested assets | | |
| Sales | 167,148 | 89,933 |
| Purchases | (159,760) | (146,588) |
| Affiliated companies and participating interests | | |
| Sales | 13,685 | 111 |
| Purchases | (28,128) | (11,224) |
| Real estate and real estate funds | | |
| Sales | 37,261 | 41,546 |
| Purchases | (45,098) | (94,300) |
| Short-term investments | | |
| Changes | 279,512 | 62,342 |
| Other changes (net) | (9,970) | (13,781) |
| **Cash flow from investing activities** | **91,685** | **300,289** |

| in EUR thousand | 1.1.–30.6.2016 | 1.1.–30.6.2015 |
|---|---|---|
| **III. Cash flow from financing activities** | | |
| Contribution from capital measures | 2,191 | 663 |
| Payment on capital measures | (10,024) | (459) |
| Structural change without loss of control | 11 | – |
| Dividends paid | (611,594) | (555,933) |
| Proceeds from long-term debts | 121 | 23,035 |
| Repayment of long-term debts | (995) | (517,425) |
| Other changes | (13) | (10) |
| **Cash flow from financing activities** | **(620,303)** | **(1,050,129)** |
| | | |
| **IV. Exchange rate differences on cash** | **(6,045)** | **21,302** |
| **Cash and cash equivalents at the beginning of the period** | **792,604** | **772,882** |
| **Change in cash and cash equivalents (I.+II.+III.+IV.)** | **212,338** | **119,906** |
| **Cash and cash equivalents at the end of the period** | **1,004,942** | **892,788** |
| | | |
| **Supplementary information on the cash flow statement** [1] | | |
| Income taxes paid (on balance) | (152,301) | (142,457) |
| Dividend receipts [2] | 67,236 | 39,108 |
| Interest received | 746,684 | 755,703 |
| Interest paid | (100,169) | (87,124) |

[1] The income taxes paid, dividend receipts as well as interest received and paid are included entirely in the cash flow from operating activities.
[2] Including dividend-like profit participations from investment funds

# Notes to the consolidated financial statements as at 30 June 2016

# Notes

## 1. General reporting principles

Hannover Rück SE and its subsidiaries (collectively referred to as the "Hannover Re Group" or "Hannover Re") are 50.2% (rounded) owned by Talanx AG and included in its consolidated financial statement. Talanx AG is majority-owned by HDI Haftpflichtverband der Deutschen Industrie V.a.G. (HDI). Hannover Re is obliged to prepare a consolidated financial statement and group management report in accordance with § 290 German Commercial Code (HGB). Furthermore, HDI is required by §§ 341 i et seq. German Commercial Code (HGB) to prepare consolidated annual accounts that include the annual financial statements of Hannover Rück SE and its subsidiaries. Hannover Rück SE is a European Company, Societas Europaea (SE), and its registered office is located at Karl-Wiechert-Allee 50, 30625 Hannover, Germany.

The consolidated financial statement of Hannover Re was drawn up in compliance with the International Financial Reporting Standards (IFRS) that are to be used within the European Union. This also applies to all figures provided in this report for previous periods.

As provided for by IAS 34, in our preparation of the consolidated quarterly financial statement, consisting of the consolidated balance sheet, consolidated statement of income, consolidated statement of comprehensive income, consolidated cash flow statement, consolidated statement of changes in shareholders' equity and selected explanatory notes, we draw on estimates and assumptions to a greater extent than is the case with the annual financial reporting. This can have implications for items in the balance sheet and the statement of income as well as for other financial obligations. Although the estimates are always based on realistic premises, they are of course subject to uncertainties that may be reflected accordingly in the result. Losses from natural disasters and other catastrophic losses impact the result of the reporting period in which they occur. Furthermore, belatedly reported claims for major loss events can also lead to substantial fluctuations in individual quarterly results. Gains and losses on the disposal of investments are accounted for in the quarter in which the investments are sold.

The present consolidated quarterly financial statement was prepared by the Executive Board on 25 July 2016 and released for publication.

## 2. Accounting principles including major accounting policies

The quarterly accounts of the consolidated companies included in the consolidated financial statement were drawn up as at 30 June 2016.

The consolidated quarterly financial report was compiled in accordance with IAS 34 "Interim Financial Reporting". Consequently, the accounting policies adopted in the period under review were the same as those applied in the preceding consolidated annual financial statement; changes made in specific justified cases pursuant to IAS 8 are reported separately in the section entitled "Changes in accounting policies". For more details of the accounting policies please see the Group annual financial report for the previous year.

All standards adopted by the IASB as at 30 June 2016 with binding effect for the period under review have been observed in the consolidated financial statement.

## Key exchange rates

The individual companies' statements of income prepared in the national currencies are converted into euro at the average rates of exchange and transferred to the consolidated financial statement. The conversion of foreign currency items in the balance sheets of the individual companies and the transfer of these items to the consolidated financial statement are effected at the mean rates of exchange on the balance sheet date.

**Key exchange rates**

| 1 EUR corresponds to: | 30.6.2016 | 31.12.2015 | 1.1.–30.6.2016 | 1.1.–30.6.2015 |
|---|---|---|---|---|
| | Mean rate of exchange on the balance sheet date | | Average rate of exchange | |
| AUD | 1.4926 | 1.4981 | 1.5092 | 1.4416 |
| BHD | 0.4190 | 0.4122 | 0.4188 | 0.4244 |
| CAD | 1.4381 | 1.5158 | 1.4743 | 1.3876 |
| CNY | 7.3798 | 7.0970 | 7.2688 | 7.0014 |
| GBP | 0.8273 | 0.7381 | 0.7786 | 0.7349 |
| HKD | 8.6165 | 8.4692 | 8.6295 | 8.7251 |
| KRW | 1,278.9400 | 1,281.5964 | 1,306.6650 | 1,235.9627 |
| MYR | 4.4784 | 4.6929 | 4.5392 | 4.0869 |
| SEK | 9.4287 | 9.1938 | 9.2837 | 9.3342 |
| USD | 1.1105 | 1.0927 | 1.1113 | 1.1253 |
| ZAR | 16.5036 | 16.8447 | 16.9829 | 13.3789 |

# 3. Consolidated companies and consolidation principles

## Capital consolidation

The capital consolidation is carried out according to the requirements of IFRS 10 "Consolidated Financial Statements" on the basis of a consistent consolidation model for all entities that identifies control as the single basis for verifying the consolidation requirement, irrespective of whether control is substantiated in company law, contractually or economically. Group companies are consolidated from the point in time when Hannover Re gains control over them. Control exists if Hannover Re directly or indirectly has decision-making power over a Group company on the basis of voting rights or other rights, if it has exposure or rights to positive and negative variable returns from its involvement with the Group company and if it can use its power to influence these returns. All of these criteria must be met. Other circumstances may also give rise to control, for example the existence of a principal-agent relationship. In this case a party outside the Group with decision-making powers (agent) acts for Hannover Re, but does not control the company since it merely exercises decision-making powers that have been delegated by Hannover Re (principal). In the context of their operational activities some companies belonging to the Hannover Re Group enter into business relations with structured entities that are also to be examined in accordance with IFRS 10 in conjunction with IFRS 12 with an eye to their implications for consolidation. Structured entities are entities designed in such a way that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. Consolidation decisions are reviewed as necessary and at least once a year. Group companies are consolidated until the Hannover Re Group loses control over them. The accounting policies of Group companies are adjusted, where necessary, in order to ensure consistent application of the Hannover Re Group's accounting policies. The capital consolidation is based on the acquisition method. In the context of the acquisition method the acquisition costs, measured at the fair value of the consideration rendered by the parent company on the acquisition date, are netted with the proportionate shareholders' equity of the subsidiary at the time when it is first included in the consolidated financial statement after the revaluation of all assets and liabilities. After recognition of all acquired intangible assets that in accordance with IFRS 3 "Business Combinations" are to be accounted for separately from goodwill, the difference between the revalued shareholders' equity of the subsidiary and the purchase price is recognised as goodwill. Under IFRS 3 scheduled amortisation is not taken on goodwill. Instead, impairment is taken where necessary on the basis of annual impairment tests. Immaterial and negative goodwill are recognised in the statement of income in the year of their occurrence. Costs associated with acquisition are expensed.

Companies over which Hannover Re is able to exercise a significant influence are consolidated as associated companies using the equity method of accounting with the proportion of the shareholders' equity attributable to the Group. A

Notes

significant influence is presumed to exist if a company belonging to the Hannover Re Group directly or indirectly holds at least 20% – but no more than 50% – of the voting rights. We also derive evidence of significant influence over an associated company from representation on a governing body of such company, participation in its policy-making processes – e. g. with respect to dividends or other distributions –, the existence of material inter-company transactions, the possibility of interchanging managerial personnel or the provision of key technical information for the company. Income from investments in associated companies is recognised separately in the consolidated statement of income.

Non-controlling interests in shareholders' equity are reported separately within Group shareholders' equity in accordance with IAS 1 "Presentation of Financial Statements". The non-controlling interest in profit or loss, which forms part of net income and is shown separately after net income as a "thereof" note, amounted to EUR 28.4 million (EUR 24.9 million) as at 30 June 2016.

For further details we would refer to the relevant information in the Group annual financial report as at 31 December 2015.

## Consolidation of business transactions within the Group

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

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

## Major acquisitions and new formations

On 10 May 2016 Hannover Rück acquired all the shares in the company Congregational and General Insurance Company Plc. (CGI), Bradford/United Kingdom, through its subsidiary International Insurance Company of Hannover SE, Hannover. The purchase price of the shares amounted to EUR 11.3 million. Along with the company, Hannover Re also acquired its 25% stake in Integra Insurance Solutions Limited, Bradford/United Kingdom. In total, therefore, Hannover Re holds all the shares through various subsidiaries.

The business was included in the consolidated financial statement for the first time as at 1 May 2016. For the purposes of initial consolidation and in accordance with appropriate measurement methods, the fair values of the acquired assets and assumed liabilities were to some extent established on the basis of assumptions and estimations.

The business was therefore included in the consolidated financial statement on a provisional basis, using the best available information as at the balance sheet date. New information that becomes known in future reporting periods may, however, necessitate adjustments.

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

**Assets and liabilities of the acquired business**

| in EUR thousand | 1.5.2016 |
|---|---|
| **Assets** | |
| Fixed-income securities – available for sale | 4,845 |
| Equity securities – available for sale | 1,116 |
| Investments in associated companies | 12,638 |
| Cash and cash equivalents | 2,629 |
| Reinsurance recoverables on unpaid claims | 2,733 |
| Prepaid reinsurance premium | 3,313 |
| Deferred acquisition costs | 1,395 |
| Accounts receivable | 2,903 |
| Deferred tax assets | 666 |
| Other assets | 2,583 |
| Accrued interest and rent | 112 |
| | **34,933** |
| **Liabilities** | |
| Loss and loss adjustment expense reserve | 4,408 |
| Unearned premium reserve | 4,926 |
| Reinsurance payable | 2,047 |
| Provisions for pensions | 2,486 |
| Other liabilities | 1,163 |
| | **15,030** |
| **Net assets** | **19,903** |

In view of the fact that the fair values of the recognised, identifiable assets, liabilities and contingent commitments exceed the acquisition costs associated with the transaction, the capital consolidation gave rise to negative goodwill of EUR 8.6 million which was recognised immediately in income in accordance with the requirements of IFRS 3.34. This non-recurring effect from the transaction was accounted for as at 30 June 2016 in the consolidated statement of income under other operating income. The negative goodwill resulted primarily from the limitation of the revaluation of the assumed pension provisions to the amount that was to be recognised in accordance with IAS 19 as required by IFRS 3.26. It is similarly the case that adjustments to the recognised negative goodwill may be necessary in future reporting periods as a consequence of updated information about the fair values of the acquired assets and assumed liabilities and in connection with recognition of the incidental costs of the transaction, the amount of which had still to be established at the date of initial consolidation.

The gross written premium of the assumed business from the date of initial consolidation until the balance sheet date amounted to EUR 1.8 million. For the same period net income of EUR 0.1 million was booked from the assumed business. This does not include the other operating income resulting from reversal of the negative goodwill.

Effective 8 January 2016 Funis GmbH & Co. KG ("Funis"), a wholly owned subsidiary of Hannover Rück SE, increased its interest in the share capital of Glencar Underwriting Managers Inc., Chicago, USA ("Glencar"), from 49% to 100% and thereby acquired control of the company. Glencar, which had previously been included at equity in the consolidated financial statements, was therefore consolidated as a subsidiary from the first quarter of 2016 onwards. Derecognition of the assets and liabilities and measurement of the previous shares at fair value gave rise to an expense of EUR 0.7 million that was recognised in investment income. In addition, cumulative other comprehensive income from currency translation amounting to EUR 1.2 million was realised. A purchase price of EUR 5.6 million was paid for the acquisition of the remaining shares. In the context of the purchase price allocation, the calculation of the fair values of acquired assets and assumed liabilities undertaken for the purposes of initial consolidation gave rise to goodwill of EUR 5.4 million.

## Major disposals and retirements

Following the sale of the property that it held and repatriation of the capital in the previous year, Oval Office Grundstücks GmbH, Hannover, ceased its business operations. The company is expected to be liquidated in the further course of the year under review. For this reason, the measurement of the company at equity was discontinued on materiality grounds with effect from the first quarter of 2016 and since then the company has been recognised as a participating interest at amortised cost. The expense resulting from deconsolidation was in a negligible amount.

## 4. Group segment report

**Segmentation of assets**

| in EUR thousand | Property and casualty reinsurance 30.6.2016 | Property and casualty reinsurance 31.12.2015 |
|---|---|---|
| **Assets** | | |
| Fixed-income securities – held to maturity | 476,419 | 810,256 |
| Fixed-income securities – loans and receivables | 2,777,597 | 2,807,317 |
| Fixed-income securities – available for sale | 22,360,656 | 21,779,850 |
| Equity securities – available for sale | 829,202 | 452,108 |
| Financial assets at fair value through profit or loss | 102,876 | 110,836 |
| Other invested assets | 3,161,898 | 3,236,748 |
| Short-term investments | 377,970 | 273,208 |
| Cash and cash equivalents | 611,870 | 609,914 |
| **Total investments and cash under own management** | **30,698,488** | **30,080,237** |
| Funds withheld | 1,132,712 | 1,284,958 |
| Contract deposits | 1,734 | 497 |
| **Total investments** | **31,832,934** | **31,365,692** |
| Reinsurance recoverables on unpaid claims | 1,206,327 | 1,070,380 |
| Reinsurance recoverables on benefit reserve | – | – |
| Prepaid reinsurance premium | 208,062 | 162,529 |
| Reinsurance recoverables on other reserves | 557 | 6,860 |
| Deferred acquisition costs | 701,986 | 696,406 |
| Accounts receivable | 2,329,191 | 2,167,691 |
| Other assets in the segment | 1,395,077 | 1,334,802 |
| **Total assets** | **37,674,134** | **36,804,360** |

**Segmentation of liabilities**

| in EUR thousand | | |
|---|---|---|
| **Liabilities** | | |
| Loss and loss adjustment expense reserve | 23,056,624 | 22,822,777 |
| Benefit reserve | – | – |
| Unearned premium reserve | 3,265,504 | 3,019,217 |
| Provisions for contingent commissions | 100,804 | 119,668 |
| Funds withheld | 427,373 | 425,360 |
| Contract deposits | 890 | 4,448 |
| Reinsurance payable | 574,267 | 655,157 |
| Long-term liabilities | 303,921 | 308,484 |
| Other liabilities in the segment | 2,129,775 | 2,135,696 |
| **Total liabilities** | **29,859,158** | **29,490,807** |

| Life and health reinsurance | | Consolidation | | Total | |
|---|---|---|---|---|---|
| 30.6.2016 | 31.12.2015 | 30.6.2016 | 31.12.2015 | 30.6.2016 | 31.12.2015 |
| | | | | | |
| 151,899 | 163,890 | 23,832 | 33,519 | 652,150 | 1,007,665 |
| 41,798 | 62,548 | – | – | 2,819,395 | 2,869,865 |
| 7,719,105 | 7,598,153 | 115,662 | 238,445 | 30,195,423 | 29,616,448 |
| – | – | – | – | 829,202 | 452,108 |
| 39,788 | 37,748 | – | – | 142,664 | 148,584 |
| 94,681 | 109,574 | 40,491 | 177 | 3,297,070 | 3,346,499 |
| 435,208 | 839,122 | – | 800 | 813,178 | 1,113,130 |
| 393,534 | 177,537 | (462) | 5,153 | 1,004,942 | 792,604 |
| **8,876,013** | **8,988,572** | **179,523** | **278,094** | **39,754,024** | **39,346,903** |
| 11,577,377 | 12,516,887 | – | – | 12,710,089 | 13,801,845 |
| 207,932 | 188,107 | – | – | 209,666 | 188,604 |
| **20,661,322** | **21,693,566** | **179,523** | **278,094** | **52,673,779** | **53,337,352** |
| 307,093 | 325,515 | (194) | (614) | 1,513,226 | 1,395,281 |
| 997,168 | 1,367,173 | – | – | 997,168 | 1,367,173 |
| 1,398 | 1,517 | (78) | (23) | 209,382 | 164,023 |
| 2,487 | 1,827 | – | – | 3,044 | 8,687 |
| 1,315,992 | 1,398,264 | – | 1 | 2,017,978 | 2,094,671 |
| 1,470,082 | 1,498,436 | (51) | (190) | 3,799,222 | 3,665,937 |
| 710,866 | 675,435 | (1,002,043) | (828,423) | 1,103,900 | 1,181,814 |
| 25,466,408 | 26,961,733 | (822,843) | (551,155) | 62,317,699 | 63,214,938 |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| 3,790,164 | 3,734,225 | (194) | (614) | 26,846,594 | 26,556,388 |
| 11,504,424 | 12,206,721 | (3) | (22) | 11,504,421 | 12,206,699 |
| 164,282 | 140,146 | – | – | 3,429,786 | 3,159,363 |
| 193,874 | 205,860 | – | – | 294,678 | 325,528 |
| 153,889 | 839,675 | – | – | 581,262 | 1,265,035 |
| 4,249,890 | 4,678,036 | – | – | 4,250,780 | 4,682,484 |
| 766,895 | 735,027 | 277 | (178) | 1,341,439 | 1,390,006 |
| – | – | 1,490,638 | 1,489,853 | 1,794,559 | 1,798,337 |
| 2,006,986 | 1,747,491 | (998,947) | (829,559) | 3,137,814 | 3,053,628 |
| 22,830,404 | 24,287,181 | 491,771 | 659,480 | 53,181,333 | 54,437,468 |

Notes

**Segment statement of income**

| in EUR thousand | Property and casualty reinsurance 1.1.–30.6.2016 | Property and casualty reinsurance 1.1.–30.6.2015 |
|---|---|---|
| Gross written premium | 4,627,380 | 4,972,221 |
| thereof | | |
| From insurance business with other segments | – | – |
| From insurance business with external third parties | 4,627,380 | 4,972,221 |
| Net premium earned | 3,838,427 | 3,894,160 |
| Net investment income | 416,075 | 425,189 |
| thereof | | |
| Change in fair value of financial instruments | (646) | (338) |
| Total depreciation, impairments and appreciation of investments | 48,065 | 12,332 |
| Income/expense on funds withheld and contract deposits | 11,556 | 10,144 |
| Claims and claims expenses | 2,603,777 | 2,722,852 |
| Change in benefit reserve | – | – |
| Commission and brokerage, change in deferred acquisition costs and other technical income/expenses | 963,066 | 892,548 |
| Administrative expenses | 105,154 | 107,845 |
| Other income and expenses | (21,571) | (12,425) |
| **Operating profit/loss (EBIT)** | **560,934** | **583,679** |
| Interest on hybrid capital | – | – |
| **Net income before taxes** | **560,934** | **583,679** |
| Taxes | 158,700 | 141,608 |
| **Net income** | **402,234** | **442,071** |
| thereof | | |
| Non-controlling interest in profit or loss | 26,060 | 23,644 |
| **Group net income** | **376,174** | **418,427** |

The segment information shown here is based on the same principles as those applied in the consolidated financial statement as at 31 December 2015. It follows the system used for internal reporting purposes, on the basis of which the full Executive Board regularly evaluates the performance of segments and decides on the allocation of resources to them. The "Consolidation" column includes not only the elimination of cross-segment transactions but also, more significantly, companies whose business operations cannot be unambiguously allocated to property and casualty reinsurance or life and health reinsurance. These are principally the service and financing companies belonging to the Group. Since the performance indicators used to steer the segments correspond to the system according to which the consolidated financial statement is prepared, a separate reconciliation of the segment results with the Group result is not provided. We would also refer to the relevant information in the Group annual financial report as at 31 December 2015.

Both Glencar Underwriting Managers Inc., Chicago, USA – which was consolidated for the first time in the first half of 2016 – and Oval Office Grundstücks GmbH, Hannover – which was deconsolidated – are allocated to the property and casualty reinsurance segment.

| Life and health reinsurance | | Consolidation | | Total | |
|---|---|---|---|---|---|
| **1.1.–30.6.2016** | 1.1.–30.6.2015 | **1.1.–30.6.2016** | 1.1.–30.6.2015 | **1.1.–30.6.2016** | 1.1.–30.6.2015 |
| 3,656,359 | 3,614,530 | 52 | (215) | 8,283,791 | 8,586,536 |
| | | | | | |
| (52) | 215 | 52 | (215) | – | – |
| 3,656,411 | 3,614,315 | – | – | 8,283,791 | 8,586,536 |
| 3,328,133 | 3,124,759 | 102 | 437 | 7,166,662 | 7,019,356 |
| 322,157 | 366,675 | 6,560 | 6,902 | 744,792 | 798,766 |
| | | | | | |
| 21,185 | (1,352) | – | 65 | 20,539 | (1,625) |
| 15 | 15 | – | 2,365 | 48,080 | 14,712 |
| 164,051 | 187,283 | – | – | 175,607 | 197,427 |
| 2,713,388 | 2,700,534 | 187 | – | 5,317,352 | 5,423,386 |
| 155,500 | (814) | 19 | 4 | 155,519 | (810) |
| 528,659 | 533,682 | 2 | – | 1,491,727 | 1,426,230 |
| 99,580 | 102,420 | 31 | 173 | 204,765 | 210,438 |
| 25,971 | 44,432 | (1,286) | (1,498) | 3,114 | 30,509 |
| **179,134** | **200,044** | **5,137** | **5,664** | **745,205** | **789,387** |
| – | – | 35,905 | 48,453 | 35,905 | 48,453 |
| **179,134** | **200,044** | **(30,768)** | **(42,789)** | **709,300** | **740,934** |
| 46,222 | 53,210 | (10,067) | (10,656) | 194,855 | 184,162 |
| **132,912** | **146,834** | **(20,701)** | **(32,133)** | **514,445** | **556,772** |
| | | | | | |
| 2,313 | 1,225 | – | – | 28,373 | 24,869 |
| **130,599** | **145,609** | **(20,701)** | **(32,133)** | **486,072** | **531,903** |

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

## 5.1 Investments under own management

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

The investments under own management also encompass investments in associated companies, real estate and real estate funds (also includes: investment property), other invested assets, short-term investments as well as cash and cash equivalents.

Real estate which is held for sale as defined by IFRS 5 is recognised separately in the consolidated balance sheet. Intentions to sell are substantiated by individual real estate market conditions and specific property circumstances, taking into consideration current and future opportunity/risk profiles.

For further details we would refer to the relevant information in the Group annual financial report as at 31 December 2015.

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

**Investments**

| in EUR thousand | 30.6.2016 | 31.12.2015 |
|---|---|---|
| **Regional origin** | | |
| Germany | 7,313,463 | 7,039,131 |
| United Kingdom | 2,769,632 | 2,959,291 |
| France | 1,528,160 | 1,605,671 |
| Other | 6,532,974 | 6,763,836 |
| **Europe** | **18,144,229** | **18,367,929** |
| | | |
| USA | 13,136,410 | 12,525,280 |
| Other | 1,744,504 | 1,613,473 |
| **North America** | **14,880,914** | **14,138,753** |
| | | |
| Asia | 2,260,368 | 2,429,402 |
| Australia | 2,318,240 | 2,352,170 |
| **Australasia** | **4,578,608** | **4,781,572** |
| | | |
| Africa | 354,649 | 334,691 |
| Other | 1,795,624 | 1,723,958 |
| **Total** | **39,754,024** | **39,346,903** |

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

| in EUR thousand | 30.6.2016 | | 31.12.2015 | |
|---|---|---|---|---|
| | Amortised cost[1] | Fair value | Amortised cost[1] | Fair value |
| **Held to maturity** | | | | |
| due in one year | 294,029 | 298,356 | 516,518 | 523,403 |
| due after one through two years | 56,951 | 58,747 | 142,835 | 147,242 |
| due after two through three years | 47,205 | 49,737 | 92,480 | 96,765 |
| due after three through four years | 34,217 | 37,824 | 28,933 | 31,692 |
| due after four through five years | 87,715 | 101,684 | 35,024 | 40,966 |
| due after five through ten years | 131,083 | 155,277 | 190,907 | 219,086 |
| due after more than ten years | 950 | 301 | 968 | 323 |
| **Total** | **652,150** | **701,926** | **1,007,665** | **1,059,477** |
| | | | | |
| **Loans and receivables** | | | | |
| due in one year | 578,943 | 585,437 | 411,608 | 422,774 |
| due after one through two years | 63,942 | 66,117 | 280,642 | 289,989 |
| due after two through three years | 155,657 | 164,212 | 152,075 | 159,589 |
| due after three through four years | 240,769 | 265,278 | 200,139 | 219,242 |
| due after four through five years | 229,574 | 251,824 | 220,728 | 243,500 |
| due after five through ten years | 1,075,419 | 1,294,670 | 898,664 | 1,035,482 |
| due after more than ten years | 475,091 | 599,564 | 706,009 | 858,523 |
| **Total** | **2,819,395** | **3,227,102** | **2,869,865** | **3,229,099** |
| | | | | |
| **Available for sale** | | | | |
| due in one year[2] | 4,294,992 | 4,305,906 | 4,088,058 | 4,096,488 |
| due after one through two years | 3,881,069 | 3,928,748 | 3,889,262 | 3,915,448 |
| due after two through three years | 3,369,822 | 3,438,124 | 3,803,539 | 3,827,843 |
| due after three through four years | 3,360,888 | 3,475,772 | 2,572,827 | 2,624,891 |
| due after four through five years | 3,430,195 | 3,613,719 | 3,829,675 | 3,915,469 |
| due after five through ten years | 9,010,828 | 9,553,586 | 9,449,584 | 9,659,645 |
| due after more than ten years | 3,203,721 | 3,697,688 | 3,253,590 | 3,482,398 |
| **Total** | **30,551,515** | **32,013,543** | **30,886,535** | **31,522,182** |
| | | | | |
| **Financial assets at fair value through profit or loss** | | | | |
| due in one year | 18,710 | 18,710 | 13,703 | 13,703 |
| due after one through two years | 37,233 | 37,233 | 19,027 | 19,027 |
| due after two through three years | 8,377 | 8,377 | 53,432 | 53,432 |
| due after three through four years | 16,770 | 16,770 | 19,841 | 19,841 |
| due after four through five years | – | – | 2,979 | 2,979 |
| due after five through ten years | – | – | – | – |
| due after more than ten years | 20,139 | 20,139 | – | – |
| **Total** | **101,229** | **101,229** | **108,982** | **108,982** |

[1] Including accrued interest
[2] Including short-term investments and cash

Notes

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

| in EUR thousand | 30.6.2016 | | | | |
|---|---|---|---|---|---|
| | Amortised cost including accrued interest | thereof accrued interest | Unrealised gains | Unrealised losses | Fair value |
| **Investments held to maturity** | | | | | |
| Fixed-income securities | | | | | |
| Government debt securities of EU member states | 74,845 | 1,361 | 1,970 | – | 76,815 |
| US Treasury notes | 17,945 | 184 | 42 | – | 17,987 |
| Other foreign government debt securities | – | – | – | – | – |
| Debt securities issued by semi-governmental entities | 128,038 | 1,938 | 5,409 | – | 133,447 |
| Corporate securities | 91,829 | 1,477 | 10,393 | 59 | 102,163 |
| Covered bonds/asset-backed securities | 339,493 | 7,454 | 32,670 | 649 | 371,514 |
| **Total** | **652,150** | **12,414** | **50,484** | **708** | **701,926** |

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

| in EUR thousand | 31.12.2015 | | | | |
|---|---|---|---|---|---|
| | Amortised cost including accrued interest | thereof accrued interest | Unrealised gains | Unrealised losses | Fair value |
| **Investments held to maturity** | | | | | |
| Fixed-income securities | | | | | |
| Government debt securities of EU member states | 163,206 | 4,126 | 2,395 | 7 | 165,594 |
| US Treasury notes | 82,688 | 646 | 139 | – | 82,827 |
| Other foreign government debt securities | 20,074 | 65 | 65 | – | 20,139 |
| Debt securities issued by semi-governmental entities | 219,019 | 4,317 | 6,503 | – | 225,522 |
| Corporate securities | 92,070 | 1,521 | 7,635 | 81 | 99,624 |
| Covered bonds/asset-backed securities | 430,608 | 9,255 | 35,808 | 645 | 465,771 |
| **Total** | **1,007,665** | **19,930** | **52,545** | **733** | **1,059,477** |

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

| in EUR thousand | 30.6.2016 | | | | |
|---|---|---|---|---|---|
| | Amortised cost including accrued interest | thereof accrued interest | Unrealised gains | Unrealised losses | Fair value |
| **Loans and receivables** | | | | | |
| Debt securities issued by semi-governmental entities | 1,584,983 | 25,929 | 272,314 | – | 1,857,297 |
| Corporate securities | 464,344 | 7,824 | 19,255 | 2,698 | 480,901 |
| Covered bonds/asset-backed securities | 770,068 | 16,587 | 118,836 | – | 888,904 |
| **Total** | **2,819,395** | **50,340** | **410,405** | **2,698** | **3,227,102** |

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

| in EUR thousand | 31.12.2015 | | | | |
|---|---|---|---|---|---|
| | Amortised cost including accrued interest | thereof accrued interest | Unrealised gains | Unrealised losses | Fair value |
| **Loans and receivables** | | | | | |
| Debt securities issued by semi-governmental entities | 1,595,127 | 26,617 | 243,934 | 1 | 1,839,060 |
| Corporate securities | 468,607 | 5,906 | 18,604 | 4,732 | 482,479 |
| Covered bonds/asset-backed securities | 806,131 | 12,968 | 101,457 | 28 | 907,560 |
| **Total** | **2,869,865** | **45,491** | **363,995** | **4,761** | **3,229,099** |

Notes

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

| in EUR thousand | 30.6.2016 | | | | |
|---|---|---|---|---|---|
| | Amortised cost including accrued interest | thereof accrued interest | Unrealised gains | Unrealised losses | Fair value |
| **Available for sale** | | | | | |
| Fixed-income securities | | | | | |
| Government debt securities of EU member states | 2,146,897 | 18,188 | 222,176 | 2 | 2,369,071 |
| US Treasury notes | 5,911,671 | 14,234 | 112,735 | 49 | 6,024,357 |
| Other foreign government debt securities | 2,167,403 | 19,230 | 55,400 | 10,770 | 2,212,033 |
| Debt securities issued by semi-governmental entities | 4,798,773 | 37,142 | 365,910 | 491 | 5,164,192 |
| Corporate securities | 11,091,749 | 125,782 | 549,147 | 26,003 | 11,614,893 |
| Covered bonds/asset-backed securities | 2,496,558 | 20,476 | 177,125 | 18,381 | 2,655,302 |
| Investment funds | 120,344 | – | 35,445 | 214 | 155,575 |
| | **28,733,395** | **235,052** | **1,517,938** | **55,910** | **30,195,423** |
| | | | | | |
| Equity securities | | | | | |
| Shares | 511,903 | – | 42,041 | 12,423 | 541,521 |
| Investment funds | 263,430 | – | 29,176 | 4,925 | 287,681 |
| | **775,333** | **–** | **71,217** | **17,348** | **829,202** |
| Short-term investments | 813,178 | 2,324 | – | – | 813,178 |
| | | | | | |
| **Total** | **30,321,906** | **237,376** | **1,589,155** | **73,258** | **31,837,803** |

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

| in EUR thousand | 31.12.2015 | | | | |
|---|---|---|---|---|---|
| | Amortised cost including accrued interest | thereof accrued interest | Unrealised gains | Unrealised losses | Fair value |
| **Available for sale** | | | | | |
| Fixed-income securities | | | | | |
| Government debt securities of EU member states | 2,394,804 | 19,460 | 135,191 | 3,849 | 2,526,146 |
| US Treasury notes | 5,382,835 | 12,699 | 13,566 | 32,877 | 5,363,524 |
| Other foreign government debt securities | 2,148,576 | 18,299 | 25,602 | 38,766 | 2,135,412 |
| Debt securities issued by semi-governmental entities | 4,436,469 | 41,568 | 236,064 | 11,728 | 4,660,805 |
| Corporate securities | 11,911,422 | 140,011 | 320,712 | 168,280 | 12,063,854 |
| Covered bonds/asset-backed securities | 2,599,092 | 27,919 | 147,909 | 19,549 | 2,727,452 |
| Investment funds | 107,603 | – | 33,096 | 1,444 | 139,255 |
| | **28,980,801** | **259,956** | **912,140** | **276,493** | **29,616,448** |
| Equity securities | | | | | |
| Shares | 290,609 | – | 26,733 | 4,979 | 312,363 |
| Investment funds | 125,744 | – | 14,001 | – | 139,745 |
| | **416,353** | **–** | **40,734** | **4,979** | **452,108** |
| Short-term investments | 1,113,130 | 1,585 | – | – | 1,113,130 |
| **Total** | **30,510,284** | **261,541** | **952,874** | **281,472** | **31,181,686** |

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

| in EUR thousand | 30.6.2016 | 31.12.2015 | 30.6.2016 | 31.12.2015 | 30.6.2016 | 31.12.2015 |
|---|---|---|---|---|---|---|
| | Fair value before accrued interest | | Accrued interest | | Fair value | |
| **Financial assets at fair value through profit or loss** | | | | | | |
| Fixed-income securities | | | | | | |
| Corporate securities | 101,229 | 108,566 | – | 416 | 101,229 | 108,982 |
| Covered bonds/asset-backed securities | – | – | – | – | – | – |
| | **101,229** | **108,566** | **–** | **416** | **101,229** | **108,982** |
| Other financial assets | | | | | | |
| Derivatives | 41,435 | 39,602 | – | – | 41,435 | 39,602 |
| | **41,435** | **39,602** | **–** | **–** | **41,435** | **39,602** |
| **Total** | **142,664** | **148,168** | **–** | **416** | **142,664** | **148,584** |

### Information on fair values and fair value hierarchy

The methods and models set out below are used to establish the fair value of financial instruments on the assets and liabilities side of the balance sheet. The fair value of a financial instrument corresponds in principle to the amount that Hannover Re would receive or pay if it were to sell or settle the said financial instrument on the balance sheet date. Insofar as market prices are listed on markets for financial instruments, their bid price is used. In other cases the fair values are established on the basis of the market conditions prevailing on the balance sheet date for financial assets with similar credit rating, duration and return characteristics or using recognised models of mathematical finance. Hannover Re uses a number of different valuation models for this purpose. The details are set out in the following table.

**Valuation models**

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

### Fair value hierarchy

For the purposes of the disclosure requirements pursuant to IFRS 13 "Fair Value Measurement", it is necessary to assign financial assets and liabilities to a three-level fair value hierarchy.

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

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

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

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

In the current reporting period, as in the comparable period of the previous year, no financial assets or liabilities had to be reclassified to a different level of the fair value hierarchy.

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

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

| in EUR thousand | 30.6.2016 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Fixed-income securities | 44,827 | 30,251,825 | – | 30,296,652 |
| Equity securities | 829,193 | – | 9 | 829,202 |
| Other financial assets | – | 41,435 | – | 41,435 |
| Real estate and real estate funds | – | – | 386,097 | 386,097 |
| Other invested assets | – | – | 1,437,204 | 1,437,204 |
| Short-term investments | 813,178 | – | – | 813,178 |
| Other assets | – | – | – | – |
| **Total financial assets** | **1,687,198** | **30,293,260** | **1,823,310** | **33,803,768** |
| Other liabilities | – | 23,887 | 163,210 | 187,097 |
| **Total financial liabilities** | **–** | **23,887** | **163,210** | **187,097** |

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

| in EUR thousand | 31.12.2015 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Fixed-income securities | 34,077 | 29,691,353 | – | 29,725,430 |
| Equity securities | 452,098 | – | 10 | 452,108 |
| Other financial assets | – | 39,602 | – | 39,602 |
| Real estate and real estate funds | – | – | 371,254 | 371,254 |
| Other invested assets | – | – | 1,475,415 | 1,475,415 |
| Short-term investments | 1,113,130 | – | – | 1,113,130 |
| Other assets | – | 1,999 | – | 1,999 |
| **Total financial assets** | **1,599,305** | **29,732,954** | **1,846,679** | **33,178,938** |
| Other liabilities | – | 13,860 | 156,144 | 170,004 |
| **Total financial liabilities** | **–** | **13,860** | **156,144** | **170,004** |

The following table provides a reconciliation of the fair values of financial assets and liabilities included in level 3 at the beginning of the period with the fair values as at the balance sheet date.

**Movements in level 3 financial assets and liabilities recognised at fair value**

| in EUR thousand | 1.1.–30.6.2016 | | | | |
|---|---|---|---|---|---|
| | Fixed-income securities | Equities, equity funds and other variable-yield securities | Real estate and real estate funds | Other invested assets | Other liabilities |
| **Net book value at 1 January of the year under review** | **–** | **10** | **371,254** | **1,475,415** | **156,144** |
| Currency translation at 1 January of the year under review | – | (1) | (2,482) | (13,651) | (2,503) |
| **Net book value after currency translation** | **–** | **9** | **368,772** | **1,461,764** | **153,641** |
| Income and expenses | | | | | |
| recognised in the statement of income | – | – | – | 26,455 | (11,158) |
| recognised directly in shareholders' equity | – | – | 12,528 | (43,328) | – |
| Purchases | – | – | 41,255 | 159,671 | 20,720 |
| Sales | – | – | 36,451 | 166,657 | – |
| Settlements | – | – | – | – | – |
| Transfers to level 3 | – | – | – | – | – |
| Transfers from level 3 | – | – | – | – | – |
| Currency translation at 30 June of the year under review | – | – | (7) | (701) | 7 |
| **Closing balance at 30 June of the year under review** | **–** | **9** | **386,097** | **1,437,204** | **163,210** |

**Movements in level 3 financial assets and liabilities recognised at fair value**

| in EUR thousand | 1.1.–30.6.2015 | | | | |
|---|---|---|---|---|---|
| | Fixed-income securities | Equities, equity funds and other variable-yield securities | Real estate and real estate funds | Other invested assets | Other liabilities |
| **Net book value at 1 January of the year under review** | **522** | **8** | **320,956** | **1,258,903** | **136,486** |
| Currency translation at 1 January of the year under review | 46 | 1 | 13,890 | 69,805 | 12,102 |
| **Net book value after currency translation** | **568** | **9** | **334,846** | **1,328,708** | **148,588** |
| Income and expenses | | | | | |
| recognised in the statement of income | – | – | (308) | 7,622 | 641 |
| recognised directly in shareholders' equity | – | – | (9,478) | (13,374) | – |
| Purchases | – | – | 91,455 | 137,096 | 36,957 |
| Sales | – | – | 40,907 | 93,304 | 34,516 |
| Settlements | 567 | – | – | – | – |
| Transfers to level 3 | – | – | – | – | – |
| Transfers from level 3 | – | – | – | – | – |
| Currency translation at 30 June of the year under review | (1) | – | (27) | (999) | 25 |
| **Closing balance at 30 June of the year under review** | **–** | **9** | **375,581** | **1,365,749** | **151,695** |

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

**Income and expenses from level 3 financial assets and liabilities recognised at fair value**

| in EUR thousand | 1.1.–30.6.2016 | | |
|---|---|---|---|
| | Real estate and real estate funds | Other invested assets | Other liabilities |
| **Total in the period under review** | | | |
| Ordinary investment income | – | 130 | – |
| Realised gains and losses on investments | – | 30,665 | – |
| Change in fair value of financial instruments | – | 4,255 | 11,158 |
| Total depreciation, impairments and appreciation of investments | – | (8,595) | – |
| **Thereof attributable to financial instruments included in the portfolio at 30 June** | | | |
| Ordinary investment income | – | 130 | – |
| Change in fair value of financial instruments | – | 4,864 | 11,158 |
| Total depreciation, impairments and appreciation of investments | – | (8,595) | – |

**Income and expenses from level 3 financial assets and liabilities recognised at fair value**

| in EUR thousand | 1.1.–30.6.2015 | | |
|---|---|---|---|
| | Real estate and real estate funds | Other invested assets | Other liabilities |
| **Total in the period under review** | | | |
| Change in fair value of financial instruments | – | 8,875 | (641) |
| Total depreciation, impairments and appreciation of investments | (308) | (1,253) | – |
| **Thereof attributable to financial instruments included in the portfolio at 30 June** | | | |
| Change in fair value of financial instruments | – | 8,875 | 3,313 |
| Total depreciation, impairments and appreciation of investments | (308) | (1,253) | – |

If models are used to measure financial assets and liabilities included in level 3 under which the adoption of alternative inputs leads to a material change in fair value, IFRS 13 requires disclosure of the effects of these alternative assumptions. Of the financial assets included in level 3 with fair values of altogether EUR 1,823.3 million (EUR 1,846.7 million) as at the balance sheet date, Hannover Re measures financial assets with a volume of EUR 1,721.7 million (EUR 1,767.3 million) using the net asset value method, in respect of which alternative inputs within the meaning of the standard cannot reasonably be established. The remaining financial assets included in level 3 with a volume of EUR 101.6 million (EUR 79.4 million) relate in very large part to acquired life insurance policies, the valuation of which is based on technical parameters. Derivative financial instruments in connection with the reinsurance business were recognised under the other liabilities included in level 3 in the year under review. Their performance is dependent upon the risk experience of an underlying group of primary insurance contracts with statutory reserving requirements. The application of alternative inputs and assumptions has no material effect on the consolidated financial statement.

## 5.2 Debt and subordinated capital

Hannover Re recognised altogether three (three) subordinated bonds with an amortised cost of EUR 1,490.6 million (EUR 1,489.9 million) as at the balance sheet date. The subordinated debts from the 2010 and 2012 financial years in amounts of EUR 500.0 million each were placed on the European capital market through Hannover Finance (Luxembourg) S.A. The fair value of the aforementioned bonds as at 30 June 2016 was EUR 1,173.8 million (EUR 1,177.8 million).

A further subordinated debt from the 2014 financial year with a volume of EUR 500.0 million, the fair value of which was EUR 497.5 million (EUR 506.6 million), was issued by Hannover Rück SE and similarly placed on the European capital market.

For further information on these bonds please see the previous year's Group annual financial report.

## 5.3 Shareholders' equity, non-controlling interests and treasury shares

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

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

Non-controlling interests in the shareholders' equity of the subsidiaries amounted to EUR 715.1 million (EUR 709.1 million) as at the balance sheet date. They were principally attributable to non-controlling interests in the shareholders' equity of E+S Rückversicherung AG in an amount of EUR 677.8 million (EUR 667.1 million).

Conditional capital of up to EUR 60,299 thousand is available. It can be used to grant shares to holders of bonds and/or profit-sharing rights with conversion rights and warrants or conversion obligations and has a time limit of 9 May 2021.

In addition, authorised capital of up to EUR 60,299 thousand is available with a time limit of 9 May 2021. The subscription right of shareholders may be excluded with the consent of the Supervisory Board under certain conditions.

The Executive Board is further authorised, with the consent of the Supervisory Board, to use an amount of up to EUR 1,000 thousand of the existing authorised capital to issue employee shares.

The Annual General Meeting of Hannover Rück SE resolved on 10 May 2016 to distribute a gross dividend of EUR 4.75 per share, altogether EUR 572.8 million (EUR 512.5 million), for the 2015 financial year. The distribution is comprised of a dividend of EUR 3.25 per share and a special dividend of EUR 1.50 per share.

IAS 1 requires separate disclosure of treasury shares in shareholders' equity. As part of this year's employee share option plan Hannover Rück SE acquired altogether 16,413 (12,922) treasury shares during the second quarter of 2016 and delivered them to eligible employees at preferential conditions. These shares are blocked until 31 May 2020. This transaction resulted in an expense of EUR 0.4 million (EUR 0.3 million), which was recognised under personnel expenditure, as well as a negligible change in retained earnings recognised in equity. The company was no longer in possession of treasury shares as at 30 June 2016.

The increase in the other reserves arising out of currency translation, which is recognised in equity, was attributable in an amount of EUR 4.5 million (30 June 2015: EUR 24.9 million) to the translation of long-term debt or loans with no maturity date extended to Group companies and branches abroad.

# 6. Notes on the individual items of the statement of income

## 6.1 Gross written premium

**Gross written premium**

| in EUR thousand | 1.1.–30.6.2016 | 1.1.–30.6.2015 |
|---|---|---|
| **Regional origin** | | |
| Germany | 741,832 | 836,711 |
| United Kingdom | 1,404,837 | 1,438,651 |
| France | 364,934 | 352,740 |
| Other | 986,303 | 992,778 |
| **Europe** | **3,497,906** | **3,620,880** |
| | | |
| USA | 2,147,798 | 1,991,330 |
| Other | 365,899 | 401,668 |
| **North America** | **2,513,697** | **2,392,998** |
| | | |
| Asia | 1,190,351 | 1,342,953 |
| Australia | 419,788 | 530,838 |
| **Australasia** | **1,610,139** | **1,873,791** |
| | | |
| Africa | 228,009 | 248,160 |
| Other | 434,040 | 450,707 |
| Total | 8,283,791 | 8,586,536 |

## 6.2 Investment income

**Investment income**

| in EUR thousand | 1.1.–30.6.2016 | 1.1.–30.6.2015 |
|---|---|---|
| Income from real estate | 64,758 | 58,252 |
| Dividends | 18,376 | 1,112 |
| Interest income | 473,117 | 503,637 |
| Other investment income | 11,775 | 35,677 |
| **Ordinary investment income** | **568,026** | **598,678** |
| Profit or loss on shares in associated companies | 1,652 | 4,619 |
| Realised gains on investments | 138,830 | 116,597 |
| Realised losses on investments | 59,302 | 49,953 |
| Change in fair value of financial instruments | 20,539 | (1,625) |
| Impairments on real estate | 13,992 | 11,094 |
| Impairments on equity securities | 24,821 | – |
| Impairments on fixed-income securities | 672 | 2,365 |
| Impairments on participating interests and other financial assets | 8,595 | 1,253 |
| Other investment expenses | 52,480 | 52,265 |
| **Net income from assets under own management** | **569,185** | **601,339** |
| Interest income on funds withheld and contract deposits | 233,295 | 255,206 |
| Interest expense on funds withheld and contract deposits | 57,688 | 57,779 |
| Total investment income | 744,792 | 798,766 |

The impairments totalling EUR 34.1 million (EUR 3.9 million) were attributable in an amount of EUR 24.8 million (EUR 0.0 million) to equities and equity funds because their fair values fell either significantly (i. e. by at least 20%) or for a prolonged period (i. e. for at least nine months) below acquisition cost. Impairments of EUR 8.6 million (EUR 1.3 million) were taken in the area of alternative investments. These were attributable exclusively to private equity investments. An impairment of just EUR 0.7 million (EUR 2.4 million) was recognised in the area of fixed-income securities. No investments in the real estate sector were considered to be impaired (EUR 0.3 million).

As in the previous year, these write-downs were not opposed by any write-ups made on investments that had been written down in previous periods. The portfolio did not contain any overdue, unadjusted assets as at the balance sheet date since overdue securities are written down immediately.

**Interest income on investments**

| in EUR thousand | 1.1.–30.6.2016 | 1.1.–30.06.2015 |
|---|---|---|
| Fixed-income securities – held to maturity | 14,714 | 36,204 |
| Fixed-income securities – loans and receivables | 50,892 | 53,503 |
| Fixed-income securities – available for sale | 396,821 | 402,463 |
| Financial assets – at fair value through profit or loss | 1,817 | 1,461 |
| Other | 8,873 | 10,006 |
| **Total** | **473,117** | **503,637** |

## 7. Other notes

### 7.1 Derivative financial instruments and financial guarantees

Hannover Re holds derivative financial instruments to hedge interest rate risks from loans connected with the financing of real estate; these gave rise to recognition of other liabilities in an amount of EUR 5.0 million (EUR 3.6 million) and other financial assets at fair value through profit or loss of EUR 0.0 million (EUR 0.1 million).

Hannover Re's portfolio contained derivative financial instruments as at the balance sheet date in the form of forward exchange transactions taken out to hedge currency risks. These transactions gave rise to recognition of other liabilities in an amount of EUR 12.2 million (EUR 3.1 million) and other financial assets at fair value through profit or loss in an amount of EUR 6.5 million (EUR 15.0 million). The decrease in equity from hedging instruments recognised directly in equity pursuant to IAS 39 in an amount of EUR 3.6 million derived solely from the forward exchange transactions taken out to hedge currency risks from long-term investments in foreign operations. These hedging instruments resulted in the recognition of other liabilities in an amount of EUR 3.5 million. Ineffective components of the hedge were recognised in profit or loss under other investment income in an amount of EUR 0.5 million.

In order to hedge the risk of share price changes in connection with the stock appreciation rights granted under the share award plan, Hannover Re took out hedges in 2014 in the form of so-called equity swaps. The fair value of these instruments amounted to EUR 0.8 million as at the balance sheet date and was recognised under other liabilities (EUR 2.0 million recognised under other financial assets at fair value through profit or loss). The hedge gave rise to a decrease in equity from hedging instruments recognised directly in equity in an amount of EUR 2.3 million (increase in equity from hedging instruments recognised directly in equity in an amount of EUR 2.8 million); ineffective components of the hedge were recognised in a minimal amount under other investment expenses.

The net changes in the fair value of the aforementioned instruments resulted in a charge of EUR 7.7 million (EUR 3.8 million) to the result of the period under review.

### Derivative financial instruments in connection with reinsurance

Certain reinsurance treaties meet criteria which require application of the prescriptions in IFRS 4 governing embedded derivatives. These accounting regulations require that derivatives embedded in reinsurance contracts be separated from the underlying insurance contract ("host contract") according to the conditions specified in IFRS 4 and IAS 39 and recognised separately at fair value in accordance with IAS 39. Fluctuations in the fair value of the derivative components are to be recognised in income in subsequent periods.

On this basis Hannover Re recognised under financial assets at fair value through profit or loss derivatives in connection with the reinsurance business that were separated from the underlying transaction and measured at fair value in an amount of EUR 35.0 million as at the balance sheet date (EUR 24.5 million).

In addition, derivatives in connection with the reinsurance business were recognised under other liabilities in an amount of EUR 169.9 million (EUR 163.3 million) as at the balance sheet date.

Of this amount, EUR 163.2 million (EUR 156.1 million) is attributable to a number of transactions in the Life & Health reinsurance business group that are to be classified as derivative financial instruments. Under these transactions Hannover Re companies offer their contracting parties coverage for risks from possible future payment obligations arising out of hedging instruments. The payment obligations result from contractually defined events and relate to the development of an underlying group of primary insurance contracts with statutory reserving requirements. The contracts are to be classified and recognised as stand-alone credit derivatives pursuant to IAS 39. These instruments gave rise to an improvement in investment income of EUR 11.2 million (EUR 7.3 million).

Of the derivatives carried on the assets side, fair values of EUR 21.2 million (EUR 23.2 million) were attributable as at the balance sheet date to derivatives embedded in "modified coinsurance" and "coinsurance funds withheld" (ModCo) reinsurance treaties.

Within the scope of the accounting of ModCo reinsurance treaties, under which securities deposits are held by the ceding companies and payments rendered on the basis of the income from certain securities of the ceding company, the interest-rate risk elements are clearly and closely related to the underlying reinsurance arrangements. Embedded derivatives consequently result solely from the credit risk of the underlying securities portfolio. Hannover Re calculates the fair value of the embedded derivatives in ModCo treaties using the market information available on the valuation date on the basis of a "credit spread" method. Under this method the derivative is valued at zero on the date when the contract commences and its value then fluctuates over time according to changes in the credit spreads of the securities.

The ModCo derivatives gave rise to a charge to investment income of EUR 1.6 million (EUR 6.4 million) in the period under review.

### Financial guarantees

Structured transactions were entered into in the Life & Health reinsurance business group in order to finance statutory reserves (so-called Triple-X or AXXX reserves) of US ceding companies. In each case such structures necessitated the involvement of a special purpose entity. The special purpose entities carry extreme mortality risks securitised by the cedants above a contractually defined retention and transfer these risks by way of a fixed/floating swap to a member company of the Hannover Re Group. The total amount of the contractually agreed capacities of the transactions is equivalent to EUR 3,487.6 million (EUR 3,544.4 million); an amount equivalent to EUR 2,534.3 million (EUR 2,483.4 million) had been taken up as at the balance sheet date. The variable payments to the special purpose entities that are guaranteed by the Hannover Re Group cover their payment obligations. Under some of the transactions the payments resulting from the swaps in the event of a claim are reimbursed by the parent companies of the cedants by way of compensation agreements. In this case the reimbursement claims from the compensation agreements are to be capitalised separately from and up to the amount of the provision.

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

## 7.2 Related party disclosures

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

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

The business relationship between Hannover Rück SE and its subsidiary E+S Rückversicherung AG is based on a cooperation agreement. A retrocession by Hannover Rück SE to E+S Rückversicherung AG exists in property and casualty reinsurance. Exclusive responsibility rests with E+S Rückversicherung AG for German business and with Hannover Rück SE for international markets.

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

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

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

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

**Business assumed and ceded in Germany and abroad**

| in EUR thousand | 1.1.–30.6.2016 | | 1.1.–30.6.2015 | |
|---|---|---|---|---|
| | Premium | Underwriting result | Premium | Underwriting result |
| **Business assumed** | | | | |
| Property and casualty reinsurance | 273,164 | 14,332 | 298,156 | (31,197) |
| Life and health reinsurance | 71,872 | 9,688 | 73,253 | 11,937 |
| | **345,036** | **24,020** | **371,409** | **(19,260)** |
| **Business ceded** | | | | |
| Property and casualty reinsurance | (5,992) | (3,425) | (6,539) | 1,601 |
| Life and health reinsurance | (11,653) | (6,421) | (31,469) | (6,190) |
| | **(17,645)** | **(9,846)** | **(38,008)** | **(4,589)** |
| Total | 327,391 | 14,174 | 333,401 | (23,849) |

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

In the context of a bond issue by Talanx AG the Group companies Hannover Rück SE and E+S Rückversicherung AG invested in a nominal amount of EUR 47.0 million in the issued bearer debt, which has a coupon of 3.125%. The carrying amount of the instrument, which is recognised under fixed-income securities held to maturity, was EUR 47.5 million (EUR 48.3 million) including accrued interest of EUR 0.5 million (EUR 1.3 million).

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

## 7.3 Staff

The average number of staff employed at the companies included in the consolidated financial statement of the Hannover Re Group was 2,573 during the period under review (average in 2015: 2,553).

As at the balance sheet date altogether 2,577 (2,568) staff were employed by the Hannover Re Group, with 1,341 (1,337) employed in Germany and 1,236 (1,231) working for the consolidated Group companies abroad.

## 7.4 Earnings per share

**Calculation of the earnings per share**

| | 1.1.–30.6.2016 | 1.1.–30.6.2015 |
|---|---|---|
| Group net income in EUR thousand | 486,072 | 531,903 |
| Weighted average of issued shares | 120,596,860 | 120,596,920 |
| Basic earnings per share in EUR | 4.03 | 4.41 |
| Diluted earnings per share in EUR | 4.03 | 4.41 |

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

Neither in the period under review nor in the previous reporting period were there any dilutive effects.

The weighted average number of issued shares was slightly below the number of shares outstanding as at the balance sheet date. On the basis of this year's employee share option plan Hannover Rück SE acquired treasury shares in the course of the second quarter of 2016 and sold them to eligible employees at a later date. The weighted average number of shares does not include 16,413 (12,922) treasury shares pro rata temporis for the duration of the holding period. For further details please see our comments in Section 5.3 "Shareholders' equity, non-controlling interests and treasury shares".

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

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

## 7.5 Contingent liabilities and commitments

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

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

As security for technical liabilities to our US clients, we have established two trust accounts (master trust and supplemental trust) in the United States. They amounted to EUR 3,525.2 million (EUR 3,511.5 million) and EUR 40.5 million (EUR 27.2 million) respectively as at the balance sheet date. The securities held in the trust accounts are shown as available-for-sale investments. In addition, we furnished further collateral to ceding companies in an amount of EUR 1,567.5 million (EUR 1,810.3 million) in the form of so-called "single trust funds". This amount includes a sum equivalent to EUR 1,260.8 million (EUR 1,281.2 million) which was furnished by investors as security for potential reinsurance obligations from ILS transactions.

As part of our business activities we hold collateral available outside the United States in various blocked custody accounts and trust accounts, the total amount of which in relation to the Group's major companies was EUR 2,953.2 million (EUR 2,775.8 million) as at the balance sheet date.

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

As security for our technical liabilities, various financial institutions have furnished sureties for our company in the form of letters of credit. The total amount as at the balance sheet date was EUR 1,276.5 million (EUR 1,335.2 million). In a departure from the previous year, this figure does not include letters of credit in an amount of EUR 1,090.4 million (EUR 1,729.4 million) provided in favour of Group companies.

In addition, we put up own investments with a book value of EUR 52.3 million (EUR 57.9 million) as collateral for existing derivative transactions. We received collateral with a fair value of EUR 5.9 million (EUR 6.9 million) for existing derivative transactions.

As collateral for commitments in connection with participating interests in real estate companies and real estate transactions the usual collateral under such transactions has been furnished to various banks, the amount of which totalled EUR 583.5 million (EUR 592.7 million) as at the balance sheet date.

Outstanding capital commitments with respect to alternative investments exist on the part of the Group in an amount of EUR 885.6 million (EUR 837.1 million). These primarily involve as yet unfulfilled payment obligations from investment commitments given to private equity funds and venture capital firms.

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

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

Hannover, 2 August 2016

Executive Board

Wallin | Althoff | Chèvre | Gräber

Dr. Miller | Dr. Pickel | Vogel

# Review report by the independent auditors

To Hannover Rück SE, Hannover

We have reviewed the condensed consolidated interim financial statements – comprising the consolidated balance sheet, consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in shareholders' equity, consolidated cash flow statement and the notes to the consolidated financial statements – together with the interim Group management report of Hannover Rück SE, Hannover, for the period from 1 January to 30 June 2016, which are components of the half-yearly financial report pursuant to § 37w of the German Securities Trading Act (WpHG). The preparation of the condensed consolidated interim financial statements in accordance with the IFRS applicable to interim financial reporting as adopted by the EU and of the interim management report for the Group in accordance with the provisions of the German Securities Trading Act applicable to interim group management reports is the responsibility of the parent company's Board of Management. Our responsibility is to issue a review report on the condensed consolidated interim financial statements and on the interim management report for the Group based on our review.

We conducted our review of the condensed consolidated interim financial statements and the interim management report for the Group in accordance with German generally accepted standards for the review of financial statements promulgated by the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer – IDW). Those standards require that we plan and perform the review so that we can preclude through critical evaluation, with moderate assurance, that the condensed consolidated interim financial statements have not been prepared, in all material respects, in accordance with the IFRS applicable to interim financial reporting as adopted by the EU and that the interim management report for the Group has not been prepared, in all material respects, in accordance with the provisions of the German Securities Trading Act applicable to interim group management reports. A review is limited primarily to inquiries of company personnel and analytical procedures and thus provides less assurance than an audit. Since, in accordance with our mandate, we have not performed a financial statement audit, we cannot express an audit opinion.

Based on our review, no matters have come to our attention that cause us to presume that the condensed consolidated interim financial statements have not been prepared, in all material respects, in accordance with the IFRS applicable to interim financial reporting as adopted by the EU or that the interim management report for the Group has not been pre- pared, in all material respects, in accordance with the provisions of the German Securities Trading Act applicable to interim group management reports.

Hannover, 2 August 2016

KPMG AG
Wirtschaftsprüfungsgesellschaft

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# Responsibility statement

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

Hannover, 2 August 2016

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