Interim management report

Report on economic position

Business development

- Profitable growth in a market shaped by oversupply
- Investment income benefits from one-time effect associated with Viridium participation
- Return on equity of 14.3% remains well above minimum target of 9.4%
- Group net income increases by 19.3% to EUR 662.5 million

Both in property & casualty and in life & health reinsurance Hannover Re can look back on a successful first half-year. The investments, too, continued to deliver a pleasing performance despite the unchanged challenging interest rate environment. The return on equity increased significantly, while at the same time considerable growth was recorded in the underlying equity.

In property and casualty reinsurance we are satisfied with the treaty renewals in the course of the year to date, putting us in a more optimistic frame of mind for the future. We boosted our gross premium volume by an appreciable 18.4% adjusted for exchange rate effects and at the same time maintained the healthy contribution to Group net income on a virtually stable level – despite a higher burden of large losses and the necessary increases in reserves associated with past loss events.

In life and health reinsurance the most notable positive effects on the first half-year were extraordinary income booked from the required restructuring of our shareholding in Viridium and pleasing demand coming out of Asia. While the premium income – adjusted for exchange rate effects – grew by 7.4% to EUR 3.8 billion (previous year: EUR 3.5 billion), the contribution to Group net income improved by 75.5% to EUR 257.7 million (EUR 146.8 million).

Against the backdrop of sometimes sharp declines in interest rates, investment income showed a pleasing development, above all because we nevertheless succeeded in appreciably boosting the earnings from fixed-income securities. Income from our assets under own management rose by a substantial 22.5% to EUR 771.8 million (EUR 629.8 million). Even without the aforementioned one-off effect from our participation in Viridium Group, we thus increased our investment income relative to the previous year's corresponding period. The annualised average return amounted to 3.5% as at the end of the first half-year.

On a Group level gross written premium grew by 17.1% as at 30 June 2019 to EUR 11.7 billion (EUR 10.0 billion). At constant exchange rates the increase would have been 14.5%. The first six months of 2019 thus put us well ahead of our guidance for the full year, in which we anticipate currency-adjusted growth in the single-digit percentage range. Our retention decreased to 90.6% (91.3%). Net premium earned climbed 12.1% to EUR 9.4 billion (EUR 8.3 billion). The growth in net premium earned would have been 10.0% at constant exchange rates.

The Group's operating profit (EBIT) for the first half-year 2019 rose by 3.8% to EUR 942.1 million (EUR 907.3 million), while Group net income surged by 19.3% to EUR 662.5 million (EUR 555.3 million). Earnings per share thus stood at EUR 5.49 (EUR 4.60).

Hannover Re's equity base remained robust as at 30 June 2019 on a level of EUR 9.7 billion (31 December 2018: EUR 8.8 billion) despite the dividend payment of EUR 633.1 million. The book value per share amounted to EUR 80.70 (31 December 2018: EUR 72.78). The annualised return on equity stood at 14.3% as at 30 June 2019 (31 December 2018: 12.2%) and continues to exceed our minimum target of 9.4%. We define this target as 900 basis points above the five-year average return on ten-year German government bonds.

Results of operations, financial position and net assets

Property and casualty reinsurance

- Gross premium grows by 18.4% at constant exchange rates
- Large losses higher than in the previous year but still well within budget
- Satisfactory outcome of renewals during the year
- Result remains stable despite intense competition and increased large losses

Global property and casualty reinsurance markets continue to be overshadowed by intense competition and a supply of reinsurance coverage that exceeds demand. Particularly in the area of natural catastrophe covers, capacities from the ILS (insurance-linked securities) market are putting prices and conditions under sustained pressure.

Despite the challenging general environment, the various rounds of treaty renewals in the first half of the year passed off satisfactorily for Hannover Re – prompting us to look ahead with optimism to the full year. In contrast to the situation just one year ago, alternative providers of capital for the transfer of insurance risks to the capital market took a more cautious approach in the renewal negotiations during the year. Reinsurance prices remained commensurate with the risks on the whole, and we secured modestly improved conditions. As one of the world's leading reinsurers, we continued to benefit from our very robust financial strength as well as from resurgent demand among primary insurers. Attractive opportunities to expand the portfolio opened up in Asia, North America and Germany, among other markets.

Following the successful treaty renewals in property and casualty reinsurance as at 1 January 2019, the round of renewals on 1 April similarly passed off favourably for Hannover Re. This is the date on which business in Japan is traditionally renewed, along with treaty renegotiations on a more limited scale for Australia, New Zealand, Asian markets and North America. Rates in Japan improved markedly on the back of past natural catastrophe losses and we were able to boost our premium volume. In the Indian market, too, we substantially increased our premium income. The renewal of part of our North American portfolio proved highly satisfactory for our company, sustaining the trend seen in the 1 January renewals. In catastrophe business prices generally hardened, with increases running into double-digit percentages attainable under loss-impacted programmes. The total premium volume booked from the treaty renewals as at 1 April 2019 increased by 7%.

The gross written premium for our total portfolio in property and casualty reinsurance grew by 21.3% as at 30 June 2019 to EUR 7.8 billion (previous year: EUR 6.5 billion). This was again a reflection of sustained rising demand for reinsurance solutions offering solvency relief as well as in the area of traditional reinsurance covers. At constant exchange rates, gross written premium in property and casualty reinsurance would have grown by 18.4%. The level of retained premium was only marginally higher than in the corresponding period of the previous year at 91.5% (91.4%). Net premium earned climbed by 15.2% to EUR 6.0 billion (EUR 5.2 billion), or by 13.0% adjusted for exchange rate effects.

Net expenditure on large losses as at 30 June 2019 was higher than the figure for the comparable period at EUR 140.5 million (EUR 93.3 million). The largest losses in the first half of the year included the explosion at a refinery in Philadelphia in June, with an estimated net share for Hannover Re of EUR 45.7 million, the floods in Queensland, Australia, at the end of January in an amount of EUR 25.9 million as well as the crash of an Ethiopian Airlines Boeing 737 MAX in March at a cost of EUR 24.7 million. The total burden of large losses was well below our budgeted level of EUR 370 million for the first six months. In the category of large losses we include catastrophic events that are expected to result in gross loss payments of more than EUR 10 million for our company.

In addition to the large losses incurred in the current year, we also received belated loss advices from our customers in the course of the first six months for last year's typhoon Jebi in Japan in an amount of EUR 106 million for net account. Thanks to our retrocession programmes we are extensively protected going forward in the event that there is a need to set aside further additional reserves in connection with this loss. Despite the sharply negative run-off of certain prior-year losses, the run-off of our loss reserves for prior years was positive overall.

The underwriting result for total property and casualty reinsurance including interest on funds withheld and contract deposits deteriorated by 11.3% to EUR 195.9 million (EUR 220.9 million). The combined ratio of 96.7% (95.7%) was slightly higher than the previous year's figure, but nevertheless remained in line with our planning in terms of our maximum target ratio of 97% for the full year.

The income from assets under own management booked for property and casualty reinsurance contracted by 2.3% to EUR 475.6 million (EUR 486.7 million).

The operating profit (EBIT) for the Property & Casualty reinsurance business group fell by 4.6% to EUR 656.9 million (EUR 688.8 million). The EBIT margin of 11.0% (13.3%) again surpassed our minimum target of 10%. The contribution made by property and casualty reinsurance to Group net income was virtually stable at EUR 431.3 million (EUR 434.4 million).

Key figures for property and casualty reinsurance

in EUR million	2019					2018	
	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	4,394.5	3,453.0	+19.5%	7,847.5	+21.3%	2,888.4	6,467.1
Net premium earned	2,930.2	3,033.6	+10.3%	5,963.8	+15.2%	2,750.0	5,174.8
Underwriting result [1]	124.8	71.1	-41.4%	195.9	-11.3%	121.3	220.9
Net investment income	235.6	262.9	+11.9%	498.5	-0.9%	235.0	503.0
Operating result (EBIT)	334.4	322.4	-7.8%	656.9	-4.6%	349.9	688.8
Group net income	219.0	212.3	+6.4%	431.3	-0.7%	199.6	434.4
Earnings per share in EUR	1.82	1.76	+6.4%	3.58	-0.7%	1.66	3.60
EBIT margin [2]	11.4%	10.6%		11.0%		12.7%	13.3%
Combined ratio [1]	95.7%	97.7%		96.7%		95.6%	95.7%
Retention	91.9%	90.9%		91.5%		91.3%	91.4%

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

Life and health reinsurance

- Growth of 7.4% in gross premium at constant exchange rates
- Sustained strong demand worldwide for financial solutions
- Extraordinary income from restructuring of the Viridium shareholding
- Increase of 30.3% in the operating result (EBIT)

Life and health reinsurance markets around the world were similarly heavily influenced by the protracted low interest rate environment. The competitive situation was also unchanged and business in some regions remains extremely hard-fought. In Australia disability income insurance took a toll on the results posted by the entire industry. We continue to see robust demand worldwide in the area of financial solutions, which encompasses individually tailored reinsurance solutions designed to improve the solvency, liquidity and capital position of our clients.

Extraordinary income of EUR 99.5 million was booked in the second quarter from our participation in the German run-off specialist Viridium in connection with a reorganisation of the shareholding structure. This was prompted by Viridium's acquisition of Generali Lebensversicherung AG. The interest held by Hannover Re in Viridium remained largely unchanged in this context. A number of reinsurance treaties in the United Kingdom and Australia did not perform satisfactorily and we strengthened the relevant reserve positions in this respect.

In the United States new business in the area of mortality solutions fared better than expected, although this was offset by a slightly negative development in the in-force portfolio. Our expectations for the financial solutions segment were exceeded somewhat due to the writing of positive new business. In China we are seeing sustained strong demand for bespoke financial solutions, while the market for longevity solutions is particularly brisk in Canada, the Netherlands and France.

Our online platform "hr | equarium", which was launched in February as an exclusive marketplace for insurtechs, has generated lively interest among our business partners in recent months. Several hundred registered customers from 91 countries are already using the platform to connect with external providers from 33 countries who are so far offering close to 100 solutions on the platform.

The gross premium volume booked in life and health reinsurance increased by 9.3% as at 30 June 2019 to EUR 3.8 billion (previous year: EUR 3.5 billion). At unchanged exchange rates growth would have come in at 7.4%. Our retention retreated to 88.9% (91.2%). Net premium earned rose by

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7.0% to EUR 3.4 billion (EUR 3.2 billion), equivalent to growth of 5.2% at constant exchange rates.

Income from assets under own management in life and health reinsurance doubled to EUR 294.6 million (EUR 141.6 million) primarily due to the release of hidden reserves in connection with the restructuring of the Viridium shareholding.

The operating result (EBIT) totalled EUR 286.0 million (EUR 219.4 million) at the end of the first six months, a figure 30.3% higher than in the previous year. This is considerably more than the targeted EBIT growth of at least 5% that we have set ourselves for the 2019 financial year. The contribution made by life and health reinsurance to Group net income improved by 75.5% to EUR 257.7 million (EUR 146.8 million).

Key figures for life and health reinsurance

in EUR million	2019					2018	
	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	1,978.8	1,867.7	+6.6%	3,846.5	+9.3%	1,752.0	3,518.2
Net premium earned	1,680.6	1,711.3	+7.2%	3,391.8	+7.0%	1,596.3	3,170.7
Investment income	162.5	203.0	+74.5%	365.5	+52.9%	116.3	239.1
Operating result (EBIT)	116.3	169.6	+37.4%	286.0	+30.3%	123.5	219.4
Net income after tax	88.5	169.2	+76.8%	257.7	+75.5%	95.7	146.8
Earnings per share in EUR	0.73	1.40	+76.8%	2.14	+75.5%	0.79	1.22
Retention	87.0%	91.0%		88.9%		91.7%	91.2%
EBIT margin [1]	6.9%	9.9%		8.4%		7.7%	6.9%

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

Investments

- High-quality diversified investment portfolio maintained
- Ordinary investment income improves again on previous year's level
- Net realised gains higher due to release of hidden reserves connected with Viridium participation
- Return on investment of 3.5% beats full-year guidance

The investment climate remained unsettled and in search of direction during the first half of 2019 as it continued to face a host of geopolitical and economic policy issues. While the fixed-income markets that are particularly important for our company had seen the nervousness observed at the end of the previous year show some levelling off in the form of sharp decreases in risk premiums for corporate bonds, credit spreads began to widen again from the middle of the first half-year onwards.

Interest rate decreases – in some instances very appreciable – affecting euro-denominated bonds as well as the US dollar and sterling markets were recorded above all in the longer maturities. Euro bonds are increasingly being traded on the markets at negative yields well beyond the ten-year mark. The uncertain signals coming from policy makers and hints of softening fundamentals led to greater volatility overall on the markets.

The strained geopolitical situation and growing trade wars were reflected not least in sharply higher prices for gold and oil. The cautious approach adopted by central banks further highlights the continued lack of market stability despite the buoyant mood on equity markets. Even though the US economy still looks to be in robust shape, the US Federal Reserve surprisingly made an abrupt about-turn from its previously restrictive policy in favour of more expansive moves. Nor were matters helped by the continued astonishing confusion surrounding the process of the United Kingdom's withdrawal from the European Union, despite the lengthy acclimatisation phase that has already passed.

Reflecting the fall in interest rates compared to the end of the previous year and decreased risk premiums, the unrealised gains on our fixed-income securities rose sharply as at 30 June 2019 to reach EUR 1,612.0 million (31 December 2018: EUR 318.1 million). Our portfolio of assets under own management grew to EUR 44.8 billion (EUR 42.2 billion), in part thanks to the continued very positive operating cash flow. The allocation of our investments to the individual classes of securities was scarcely changed in the first half-year. With effect from this reporting period we are entering into term repurchase agreements as a supplementary liquidity management tool. The holdings exchanged in this context are fully collateralised. The modified duration of our portfolio of fixed-income securities increased slightly year-on-year to 5.2 (4.8).

Ordinary investment income excluding interest on funds withheld and contract deposits amounted to EUR 694.5 million as at 30 June 2019, a significantly higher figure than in the previous year's period (EUR 632.5 million). Particularly bearing in mind the continuing low level of interest rates, it is very pleasing to note that we were able to appreciably boost the ordinary income from fixed-income securities compared to the previous year, while again supplementing this with another increase in income generated from real estate and strong earnings from private equity. Interest on funds withheld and contract deposits contracted to EUR 93.8 million (EUR 113.8 million).

Impairments of altogether EUR 41.5 million (EUR 21.1 million) were taken. Of this, EUR 17.3 million (EUR 4.5 million) was attributable to alternative investments. Write-downs of just EUR 3.8 million (EUR 0.0 million) were taken on fixed-income securities. Depreciation recognised on directly held real estate was slightly higher at EUR 18.5 million (EUR 16.6 million), reflecting further growth in our exposure in this area. The impairments were not opposed by any appreciations (EUR 0.0 million).

The net balance of gains realised on disposals stood at EUR 127.5 million (EUR 53.4 million) and was due for the most part to the release of hidden reserves in connection with the restructuring of the Viridium shareholding.

We recognise a derivative for the credit risk associated with special life reinsurance treaties (ModCo) under which securities deposits are held by cedants for our account; the performance of this derivative in the period under review gave rise to unrealised gains of EUR 8.9 million (loss of EUR 5.9 million) recognised in income. In economic terms we assume a neutral development for this item over time, and hence the volatility that can occur in specific quarters provides no insight into the actual business development. Altogether, the unrealised gains in our assets recognised at fair value through profit or loss amounted to EUR 43.7 million (EUR 19.6 million).

Driven by sharply higher ordinary income from fixed-income securities and increased net realised gains as well as very healthy earnings from real estate and private equity, we were able to generate highly gratifying investment income of EUR 865.6 million (EUR 743.6 million) despite diminished returns from funds withheld and contract deposits. Income from assets under own management accounted for an amount of EUR 771.8 million (EUR 629.8 million), producing an annualised average return (excluding effects from ModCo) of 3.5%. Even without the one-time effect of the gains realised from the Viridium participation, the return stood at 3.0%. We are thus very well on track to achieve our expected minimum target of 2.8% for the full year.

Net investment income

in EUR million	2019					2018	
	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]	323.2	371.3	+17.2%	694.5	+9.8%	316.7	632.5
Result from participations in associated companies	3.1	4.4		7.5		0.5	1.8
Realised gains/losses	22.3	105.2		127.5	+138.8%	4.5	53.4
Appreciation [2]	17.4	24.1	+140.0%	41.5	+97.0%	10.0	21.1
Change in fair value of financial instruments [3]	27.4	16.4	+21.2%	43.7	+123.6%	13.5	19.6
Investment expenses	30.3	29.6	+5.3%	59.9	+6.4%	28.2	56.3
Net investment income from assets under own management	328.3	443.5	+49.3%	771.8	+22.5%	297.0	629.8
Net investment income from funds withheld	70.6	23.2	-57.8%	93.8	-17.5%	55.1	113.8
Total investment income	**398.9**	**466.7**	**+32.5%**	**865.6**	**+16.4%**	**352.1**	**743.6**

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

- Hannover Re has capital resources in excess of the defined strategic thresholds. The capital position is constantly reviewed against the backdrop of possible changes in the risk profile.
- Our risk management system continuously monitors newly added and changing risks and is able to respond flexibly to changes in internal and external factors.

The present opportunity and risk report summarises the key risk information for the first half of 2019. For additional information on the opportunities and risks associated with our business please see the Group Annual Report 2018.

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 when it comes to managing the portfolio and limiting the effects of individual large losses 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 catastrophic events and changes in biometric factors such as mortality,
- market risks which arise in connection with our investments and also as a consequence of the valuation of sometimes long-term payment obligations associated with the technical account,
- counterparty default risks resulting from our diverse business relationships and payment obligations inter alia with clients, retrocessionaires and banks,
- operational risks which may derive, for example, from deficient processes or systems and
- reputational risks, liquidity risks, strategic risks and emerging risks.

At the present time our most significant risks are the default and spread risks within the market risks, the reserving and catastrophe risks within the underwriting risks of property and casualty reinsurance and the risk of changes in mortality within the underwriting risks of life and health reinsurance.

Strategy implementation

Our current corporate strategy encompasses ten guiding principles that safeguard the realisation of our vision “Creating value through reinsurance” 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.

Our risk strategy is derived from the corporate strategy. It is 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 eight overriding principles within the risk strategy:

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

8. We ensure the independence of the risk management function.

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

We manage our total enterprise risk such that we can expect to generate positive IFRS Group net income with a probability of 90% p.a. and the likelihood of the complete loss of our economic capital and shareholders' equity under IFRS does not exceed 0.03% p.a. Our solvency ratio must amount to at least 180%, although 200% is already considered to be a threshold; countermeasures would be triggered if the solvency ratio were to fall below this threshold. 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 risk reporting. The necessary equity resources are determined according to the requirements of our economic capital model, regulatory parameters, the expectations of rating agencies with respect to our target rating and the expectations of our clients. Above and beyond that, we maintain a capital cushion in order to be able to act on new business opportunities at any time.

Major external factors influencing risk management

This section describes external factors that could have a particularly significant impact on risk management in 2019 and subsequent years.

Brexit: The terms of the United Kingdom's withdrawal from the European Union have still not been determined. The possibility of the UK leaving the EU without an agreement continues to exist. The Hannover Re Group is prepared for this scenario and a Group-wide working group has been set up to address readiness measures.

The Hannover Re Life UK Branch will be materially affected. In order to be able to continue its activities even after a "hard" Brexit, an application to operate under the so-called temporary permissions regime (TPR) has been filed and already approved by the financial regulator. Increased administrative expenses and higher capital costs cannot be ruled out over the medium term. Argenta Holdings Limited is a wholly owned subsidiary of Hannover Re that operates on a stand-alone basis in the United Kingdom and is already authorised as a member of Lloyd's. We also write reinsurance business in the United Kingdom through Group companies in Hannover and Ireland. In this regard we do not anticipate any significant changes as a result of Brexit.

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

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

Natural catastrophe risks and climate change: The possibility that the increased storm activity in recent years is due to progressive global warming cannot be ruled out. Hannover Re works together with partners to closely monitor the implications of global warming for extreme weather events so as to be able to incorporate the insights obtained into the models.

Reserve risks: The 2018 financial year was heavily impacted by natural catastrophe events that caused market losses in excess of USD 100 billion. In common with other market players, Hannover Re was among those affected – principally by typhoon Jebi and several wildfires in California. Given that these events occurred in the second half of 2018 the loss estimates are inevitably subject to uncertainty, with the amounts due to be paid out over the next few years. With this in mind, some additional uncertainty has been allowed for in the remaining anticipated loss payments as part of the estimated technical reserves.

Ogden rate: In 2017 a change (i.e. reduction) was made in the so-called Ogden rate – primarily affecting UK motor insurance – which is used to calculate personal injury compensation payments. A massive cut in the rate led to a rise in the expected loss costs. These increased amounts have since been reflected in the technical reserves for the relevant lines. Shortly after the end of the reporting period the UK government changed the rate from -0.75% to -0.25% effective 5 August 2019. This decision on the rate reduces the anticipated run-off result, although it is still expected to be positive thanks to the company's prudent reserving policy. The future payment patterns for these claims remain subject to uncertainty.

US mortality business: As part of our in-force management actions we initiated rate adjustments for a portfolio acquired in 2009. Insofar as the cedants affected by rate adjustments exercise their right of recapture, this can lead to one-time charges to the IFRS result in a few remaining isolated cases. We continue to monitor the further development of the underlying mortality on an ongoing basis.

Capital market environment: The protracted low level of interest rates is a major external factor influencing the return that can be generated on our investments. Interest rate declines – which in some instances were very marked – affected both euro-denominated bonds as well as the US dollar and sterling markets. Negative yields are now being seen on euro area government bonds extending beyond the 10-year maturity point. The cautious actions taken by central banks, continued uncertainty surrounding the process for the United Kingdom's exit from the European Union and numerous geopolitical flashpoints as well as simmering trade and tariff wars made the search for a clear direction on capital markets difficult in the period under review. The nervousness that was evident towards the close of the previous year subsequently levelled off, as reflected for example in sharp decreases in risk premiums on corporate bonds. From the middle of the reporting period onwards, however, corporate bond spreads began to widen again, although they did not reach the levels seen at the end of the previous year.

We continue to have exposure to the private equity market. Fair value changes here tend to be less influenced by general market conditions and more by company-specific evaluations. The risks are therefore primarily associated with the business model and profitability and to a lesser extent with the interest rate component in a consideration of cash flow forecasts. In the period under review, for example, we see the need to take somewhat higher write-downs not as a reflection of an elevated risk in the market, but rather in the context of the risk profile specific to this asset class. The significance of real estate risks has continued to grow owing to our consistent participation in this sector. We spread these risks through broadly diversified investments in high-quality markets around the world, with each investment decision being preceded by extensive analyses of the relevant property, manager and market.

As far as our investments are concerned, we anticipate continuing elevated volatility on global capital markets in the immediate future, although we also see this as an opportunity and believe that we are appropriately prepared with the current rather defensive posture of our asset portfolio. For further information please see the "Investments" section of the management report on page 10 et seq.

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 over the medium to long term 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.

Major elements in Hannover Re's business opportunity management include its various market-specific innovations in the Life & Health and Property & Casualty reinsurance business groups. Trends are systematically detected and analysed with the support of external sources and partners and the needs of our customers are anticipated along the entire insurance-related value chain. Targeted consideration is given to new business opportunities that promise access to innovative technologies and enhanced appeal in the eyes of our customers. With this in mind, Hannover Re cultivates partnerships with relevant accelerators, incubators, company builders, start-ups and research institutes in order to boost the company's competitiveness in the insurtech sector and in the field of digital solutions. Competence teams have been set up within the Hannover Re Group to assess the strategic significance of innovative new digital technologies. Not only that, Hannover Re has set up an organisational unit that provides specific support for insurtechs in the development of their digital business models and devises reinsurance solutions to this end, thereby also generating new premium potential for Hannover Re.

Hannover Re has developed a structured innovation process for the in-house generation of ideas in order to benefit more from the wealth of innovative creativity among its employees. This process is embedded in the "Hannover Re Intrapreneurship Programme", which encourages all members of staff worldwide to contribute ideas for reducing costs or increasing premium. In the course of a 13-week incubator programme selected ideas are developed by employees in an external innovation ecosystem. Project participants are released to the incubator from their line function in order to elaborate on their ideas as quickly as possible in a highly focused environment.

The networking of the innovative minds involved in these activities gives rise to close links with other projects, working groups and bodies, such as with the working group on "Emerging Risks und Scientific Affairs" in regard to emerging risks and opportunities. This working group carries out qualitative assessments of emerging risks. As a result, however, not only are the potential risks explored but also any available business opportunities. In the year under review, for example, issues such as "Microplastics" and "Medical advances" were analysed by the working group.

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

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 results of operations. 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 results of operations. 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 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. Specific 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 beyond the defined risk tolerances and enables us to react in a timely manner. One testament to our financial stability, for example, is the growth of our shareholders' equity: the total policyholders' surplus (hybrid capital, non-controlling interests and shareholders' equity) stands at 180% of the corresponding figure from 2011. In this context, our necessary equity resources are determined by the requirements of our economic capital model, solvency regulations, the assumptions of rating agencies with respect to our target rating and the expectations of our clients and shareholders. This increase gives us a sufficient capital cushion to be able both to absorb risks and act on business opportunities that may arise. Similarly, our very good ratings 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 supports 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.

Outlook for 2019

Forecast

- Gross premium growth on the Group level expected in the single-digit percentage range
- Property and casualty reinsurance to deliver premium growth well above target
- Life and health reinsurance should comfortably beat guided EBIT growth
- Return on investment for assets under own management expected to be at least 2.8%
- Profit target for 2019 excluding positive one-off Viridium effect confirmed in full

The state of global reinsurance markets continues to be shaped by intense competition and surplus capacities. An additional factor of late has been the renewed drop in interest rates in Europe and the United States, with implications for the investment income generated by the industry. Although the general environment remains challenging, it is our assessment that even against this backdrop we are still well placed to be able to continue operating profitably on a sustained basis; for the current 2019 financial year we anticipate a good overall result and we expect to achieve the goals that we have set ourselves. Excluding the positive one-off effect from the Viridium participation in an amount of EUR 99.5 million, we are well on track to generate Group net income in the order of EUR 1.1 billion for 2019. This is subject to the premise, as always, that major loss expenditure does not significantly exceed the budgeted level of EUR 875 million (2018: EUR 825 million) and that there are no unforeseen distortions on capital markets.

For the current financial year we expect to grow gross premium for the Group – based on constant exchange rates – by a single-digit percentage.

In property and casualty reinsurance, based on the outcome of the treaty renewals as at 1 January and 1 April, we are looking to book substantial currency-adjusted growth at broadly stable conditions. In this context we shall adhere to our selective underwriting policy, under which for the most part we only write business that meets our margin requirements.

This expectation was confirmed by the treaty renewals as at 1 June and 1 July, which passed off favourably for Hannover Re. Parts of the North American portfolio are traditionally renegotiated at this time of the year, especially natural catastrophe risks, along with business in Australia and New Zealand as well as in the credit and surety lines. The renewals in Florida, where hurricane Irma had caused considerable reinsured losses in 2017 with late reported claims in some instances on a significant level, proved particularly successful for Hannover Re.

For 2019, as already announced, we have raised our net major loss budget to EUR 875 million after EUR 825 million in the previous years. This adjustment reflects the growth in the underlying business. We are targeting a combined ratio here of no more than 97%.

In life and health reinsurance we anticipate moderate premium growth – adjusted for exchange rate effects – in the current financial year. Due to the elimination of the previous year's strain from the termination of loss-making treaties in US mortality business, the EBIT generated in life and health reinsurance should increase sharply in the 2019 financial year and comfortably surpass our strategic target of at least 5% EBIT growth. Our minimum target of EUR 220 million per year for the value of new business remains unchanged.

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 the asset portfolio. In the area of fixed-income securities we continue to emphasise the high quality and diversification of our portfolio. Overall, the primary focus will remain on stability while maintaining an adequate risk/return ratio that will enable us to respond flexibly to general developments and emerging opportunities. For 2019 we are targeting a minimum return on investment of 2.8%.

Hannover Re envisages a payout ratio for the ordinary dividend in the range of 35% to 45% of its IFRS Group net income. The ordinary dividend will be supplemented by payment of a special dividend subject to an unchanged comfortable level of capitalisation and Group net income in line with expectations.