somewhat different

Hannover Rück SE 2020

Solvency and Financial Condition Report

hannover re®

Contents

Executive Summary

Key figures

in TEUR	2020	2019
Solvency II Balance Sheet		
Assets	50,531,217	50,836,868
Technical Provisions	27,423,208	27,752,619
Other Liabilities	10,678,290	10,588,388
Excess of Assets over Liabilities	12,429,719	12,495,861
Eligible Own Funds		
Tier 1 Basic Own Funds (unrestricted)	11,857,483	11,812,933
Tier 1 Basic Own Funds (restricted)	548,243	546,522
Tier 2 Basic Own Funds	1,833,717	1,830,027
Tier 3 Basic Own Funds	29,549	19,643
Eligible Own Funds (SCR)	14,268,992	14,209,126
Capital requirements		
Solvency Capital Requirement	5,949,073	5,505,652
Minimum Capital Requirement	2,677,083	2,477,543
Coverage Ratio		
Ratio of Eligible Own Funds to SCR (Solvency Ratio)	240%	258%
Ratio of Eligible Own Funds to MCR	483%	519%

Hannover Rück SE (hereinafter referred to as “Hannover Rück” or “the company”) fulfils the minimum and solvency capital requirements (hereinafter referred to as MCR and SCR) stipulated by the supervisory authorities as at the reporting date of 31 December 2020 and in the financial year 2020. The solvency ratio was above the internal threshold of 200% during the entire financial year.

The principles used to determine the solvency ratio are explained in this document. Section D describes the valuation principles used to determine the eligible own funds, and Section E those used to determine the SCR, in particular with regard to the use of the internal capital model.

According to legal requirements, the Solvency II balance sheet was audited by the auditing firm.

This report constitutes a mandatory publication pursuant to Section 40 of the Insurance Supervision Act (VAG). Please note that, for the larger part, the information contained herein is already included in the Hannover Re-Group Annual Report and in the Hannover Rück Individual Annual Report caused by the overlapping regulatory requirements.

Please note that rounding differences can occur in the presented tables. Values below TEUR 0.5 are displayed as “0”. Empty cells or cells with “-“ represent a value of EUR 0.00.

A. Business and Performance

Hannover Rück transacts all lines of Property & Casualty and Life & Health reinsurance. Its global presence and activities across all lines of reinsurance business allows the company to achieve an efficient risk diversification. Since 1 January 1997 Hannover Rück SE has written active reinsurance for the Group – with few exceptions – solely in foreign markets. Responsibility within the Hannover Re Group for German business rests with the subsidiary E+S Rückversicherung AG. (hereinafter "E+S Rück").

The 2020 financial year passed off satisfactorily for Hannover Rück. The gross premium in total business grew by TEUR 1,144,152 to TEUR 19,217,021. The level of retained premium decreased from 69.7% to 68.3%. Net premium earned increased, climbing by 5.7% to TEUR 12,923,326 (2019: TEUR 12,226,552).

Measured in terms of premium volume and the total technical result in the 2020 financial year, the material lines of business are marine, aviation and transport insurance (TEUR 127,963), life reinsurance (TEUR 96,762), fire and other damage to property insurance (TEUR 13,356), general liability insurance (TEUR -52,835), credit and suretyship insurance (TEUR -82,739), health reinsurance (TEUR -139,275) and miscellaneous financial loss (TEUR -242,168).

In marine, aviation and transport insurance, claims incurred were lower against a backdrop of increased net premium earned. This can be attributed primarily to falling claims expenditures, which are opposed by higher operating expenses. Growth in US and Group business as well as increases in the Advanced Solutions segment led to the rise in net premium earned in the line fire and other damage to property insurance. In relation to this increase, both a lower burden of losses and reduced reserve allocations were recorded. Net premium earned in general liability insurance is higher due to growing US business. Strains from run-offs also relate to an accident at a French nuclear power plant (Paluel). The decline in net premium earned in credit and suretyship insurance results from the termination of a Group-internal retrocession agreement. Under miscellaneous financial loss the claims incurred are attributable almost entirely to losses connected with the Covid-19 pandemic, which made extensive reserving necessary.

The health reinsurance business shows a slight increase in premium volume for the reporting period. The decrease in the technical underwriting result is mainly attributable to higher than expected losses and reserves set aside in connection with the Covid-19 pandemic.

The technical underwriting result for the life reinsurance line has improved compared to the previous period. The overall positive development of our international Financial Solutions and Longevity business has attributed to this increase.

We are very satisfied with the development of our investments during the year under review. Although it has been another challenging year with continuously low interest rate levels and a global economic situation which is more and more affected by numerous uncertainties and risks, we managed to excel in achieving our goals.

Ordinary income, including interests from funds withheld was slightly below the previous year's level, mainly due to lower dividends from our participation holding companies. However, this was partly compensated by increased ordinary income. In particular, the net gains from the disposal of investments rose significantly, mainly due to the realization of hidden reserves in connection with the restructuring of our stake in Viridium. Realisation gains from investment funds, on the other hand, were down compared to the high prior-year figures. Write-downs on investments had to be made only to a limited extent. In view of the higher market values, these write-downs were compensated by substantial write-ups on investments which had been written down in previous periods.

In response to the increasingly difficult search for an appropriate risk/return ratio for reinvestments and new investments as a result of low interest rates, we slightly adjusted the allocation of the portfolio by expanding our portfolio of emerging market and high yield bonds as well as collateralised securities. Our real estate portfolio was further strengthened as part of our strategic expansion through the acquisition of four properties in the USA and Asia. Additionally, we took advantage of very attractive market opportunities in Eastern Europe and sold two properties. All other investment categories saw only limited adjustments as part of the regular portfolio maintenance programme.

Overall, our investment portfolio increased significantly in the year under review. In addition to the positive operating cash flow, this also reflects the issue of a bond in the third quarter.

Details on the Business and Performance and be found in Section A.

B. System of Governance

Hannover Rück has an effective system of governance, which provides for sound and prudent management. Written guidelines are in place for all significant business events. The key functions pursuant to Section 26 and Sections 29-31 of the Insurance Supervision Act (VAG) have been set up, entrusted with the tasks described and equipped with appropriate resources.

In the reporting year, a focus of the work of the Compliance Function was the further improvement of the Compliance Management System in combination with the revision of the Compliance Handbook. In addition, the Compliance Risk assessment was improved. Furthermore, a new methodology for the assessment of adequacy and effectiveness of mitigating measures for the Compliance Risk was introduced. Another focus of the Compliance activities lay again with the further implementation of sanction audit processes and their ongoing improvement.

The Executive Board has established a committee, which supports the assessment of the system of governance. Based on the assessment conducted by the committee, the Executive Board has reached the conclusion that the system of governance of Hannover Rück is appropriate considering the scope and complexity of its business activities and the inherent risks.

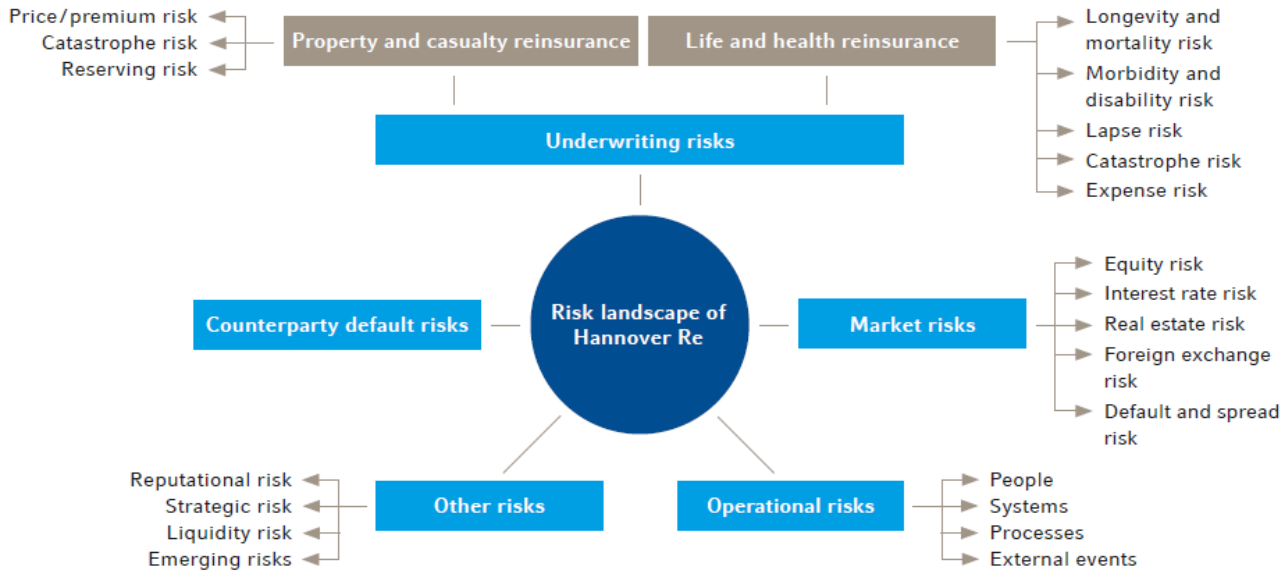
Hannover Rück has established an outsourcing management process that covers all process steps of an outsourcing and involves all relevant stakeholder groups. Currently, there is only one important outsourcing to Ampega Asset Management GmbH, covering the asset and investment management.

The individual elements of the system of governance of Hannover Rück are explained in Section B.

C. Risk Profile

In the context of its business operations Hannover Re enters into a broad variety of risks. These risks are deliberately accepted, steered and monitored. They specifically concern underwriting risks pertaining to Property & Casualty and Life & Health as well as capital market risks, liquidity risks and counterparty default risks. Operational, strategic and reputational risks also arise in the course of business operations. In Section C, we describe the sources and management of those risks. We also explain how we handle potential future risks (emerging risks).

Risk landscape of Hannover Rück



Hannover Rück received approval from the regulatory authorities to calculate its solvency requirements using an internal capital model. Since year-end 2018 Hannover Rück applies the volatility adjustment according to § 82 of the Insurance Supervision Law VAG. This is intended to mitigate the effect of value fluctuations on the bond market. For year-end 2019 Hannover Rück has received approval from BaFin for a dynamic modelling of the volatility adjustment. By this the effect of the volatility adjustment is captured in the calculation of the required capital more adequately.

The solvency capital requirements (SCR) as of 31 December 2020 are shown in the following table. The SCR includes the impact from the dynamic volatility adjustment for both reference dates. The impact of the volatility adjustment is displayed separately in Section D.2 as well as in the annex QRT S.22.01.21.

Solvency Capital Requirement (SCR) – Risk categories
in TEUR

Solvency Capital Requirement	2020	2019
Underwriting risk - Property & Casualty	4,352,598	4,221,301
Underwriting risk - Life & Health	3,139,919	2,732,988
Market risk	4,143,238	3,943,049
Counterparty default risk	445,380	419,990
Operational risk	529,608	520,355
Diversification	**−4,457,794**	**−4,235,781**
Total risk (pre-tax)	**8,152,948**	**7,601,902**
Deferred tax	2,203,876	2,096,250
Total risk (post-tax)	**5,949,073**	**5,505,652**

The required capital is calculated based on the approved internal model. At present, 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 & Casualty reinsurance and the longevity risks within the underwriting risks of Life & Health reinsurance. In general, annuity portfolios are adversely impacted by improvements in mortality, while death benefit portfolios are adversely affected by deteriorations in mortality.

Overall, the required capital increased in the course of the year. This was principally driven by the larger business volumes, which have led to an increase in underwriting risks and market risks. The lower level of interest rates also contributes to the increase.

The increase in market risk mainly reflects the larger volume in the private equity sector, but also the slightly higher share in equity. Further factors here are the increased spread volatility throughout the year, as well as the larger volumes of fixed-income securities as a result of falling interest rates.

The underwriting risks in Property & Casualty reinsurance increased primarily as a consequence of higher premium and reserve volumes. The larger volumes are the result of business growth, the large loss expenditure (especially in connection with the Covid-19 pandemic) and accompanying higher reserves as well as the lower interest rate level.

The underwriting risks in Life & Health reinsurance increased primarily as a result of the business growth in the area of longevity and morbidity risks as well as lower interest rates.

The increase in counterparty default risks can be attributed to a higher volume of receivables due from ceding companies.

The changes in operational risks are above all driven by an updated expert assessment regarding the impact of individual scenarios.

The risk monitoring and control mechanisms are presented in Section C.

Hannover Rück classified the Covid-19 pandemic as a global crisis for the purposes of business continuity management in early 2020 and initiated the measures defined in the guidelines on Business Continuity Management. These steps include, among other things, the setting up of a Crisis Management Team. In the course of the year the Crisis Management Team took various decisions to maintain regular business operations, including response to official measures. They encompass an extensive reduction in travel, a broad changeover to teleworking and the use of videoconferences. The measures taken were successful and we have so far not identified any material impacts of the

Covid-19 pandemic on our operations. The pandemic brought a surge in volatility on financial markets, which in some respects proved to be temporary. Our asset/liability management including the use of the volatility adjustment protects Hannover Rück's financial strength against such changes in volatility. Despite the strains associated with the Covid-19 pandemic and the extraordinary volatility on the capital market, we were thus able to secure a robust capital base, with solvency ratios comfortably above our limit of 180% and threshold of 200%. This was achieved even against the backdrop of the incurred and anticipated insured losses. Given that the pandemic is still ongoing, any forecasts remain subject to considerable uncertainty. We continue to evaluate our financial strength and profitability on a regular basis using stress tests and sensitivity analyses and will take measures as needed to reduce risks or strengthen our equity resources.

D. Valuation for Solvency Purposes

For the purposes of calculating the eligible own funds, Hannover Re values the assets and liabilities pursuant to the provisions of Sections 74 et seq. of the Insurance Supervision Act (VAG), i.e. in accordance with Solvency II.

The valuation for Solvency purposes is set in principle at the fair value (market value). Insofar as IFRS values appropriately reflect the fair value of individual assets or liabilities, they are applied.

Technical provisions pursuant to Solvency II differentiate significantly from the definition of provisions pursuant to the International Financial Reporting Standards (IFRS), both in terms of structure and in relation to the calculation rules. A comparison of IFRS and Solvency II technical provisions is shown as well as a comparison of current technical provisions under Solvency II and those calculated last year.

The Technical Provisions Life & Health include adjustments for already incurred as well as expected future claims of the Covid-19 pandemic. Nevertheless, there is a certain risk of higher claims in the near future and an adverse development in mortality and morbidity rates from long-term consequences for people suffering from Covid-19.

Section D explains the details of the valuation for solvency purposes.

E. Capital Management

Hannover Rück endeavours at all times to maintain a solvency ratio of at least 180%, and thus exceeds the requirements of 100% stipulated by the supervisory authority. In addition, a threshold value of 200% has been defined. If the solvency ratio falls below this threshold value Hannover Rück will adopt capital measures aimed at either strengthening the company's equity or reducing the risk, or both.

The solvency ratio with and without application of the volatility adjustment is continuously monitored. Any changes are taken into account as part of planning, and potential changes in the solvency ratio, which can be caused by larger transactions, are examined in advance. During the financial year 2020, there was no breach of the limit of 180%. Further information on the calculation of the solvency ratio can be found in Section E.

Own funds in the Solvency II balance sheet consist of basic own funds, which comprise the excess of assets over liabilities and subordinated capital less foreseeable dividends. Ancillary own funds were not in use by Hannover Rück as at 31 December 2020.

The available economic capital increased by TEUR 59,865 to TEUR 14,268,992 as at 31 December 2020. The amount of own funds comprise ordinary share capital, the share premium account and the reconciliation reserve. These items are allocated to Tier 1 capital. Additionally, subordinated capital of tiering classes 1 restricted and 2 is taken into account and net deferred tax assets, which are recognized as tier 3 capital. In total, almost 87% of all available capital is assigned to the highest quality level (tier 1).

Hannover Rück uses an approved full internal model for the purposes of calculating the Solvency Capital Requirement (SCR). The individual risk categories are aligned with the risk modules of the standard formula. The internal model is applied in a broad range of management and decision-making processes. The future development of Solvency and Minimum Capital Requirements are forecast at regular intervals as part of the planning process.

Section E explains the details of capital management.

A. Business and Performance

A.1 Business

A.1.1 Business model

With a gross premium volume of more than TEUR 24,765,462, the Hannover Re Group is the third-largest reinsurer in the world. Hannover Rück SE is a European Company, Societas Europaea (SE), based in Hannover, Germany. We transact reinsurance in our Property & Casualty and Life & Health business groups.

The strategy pursued in both Property & Casualty and Life & Health reinsurance supports our Group's paramount mission, namely: "Striving for sustainable outperformance". Our entire business operations are geared to our goal of being the preferred business partner for our clients. It is for this reason that our clients and their concerns form the focus of our activities.

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

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

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

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

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

Through its global presence and activities Hannover Rück is directly or via affiliates affected by various foreign fiscal and regulatory developments.

A.1.2 Income and key transactions

In this and the following sections of Section A, the values indicated were determined in accordance with the German Commercial Code (hereafter referred to as HGB), as required by Art. 293 (2) Delegated Regulation. Please note that the accounting rules under HGB differ significantly from those under Solvency II.

The 2020 financial year passed off well for Hannover Rück SE despite the global crisis due to the Covid-19 pandemic. The gross premium in total business increased by 6.3% to TEUR 19,217,021. The level of retained premium retreated slightly to 68.3% (69.7%). Net premium earned grew by 5.7% to TEUR 12,923,326.

The underwriting result (before changes in the equalisation reserve) closed the year under review at TEUR -209,120. An amount of TEUR 694,004 was allocated to the equalisation reserve and similar provisions in the year under review.

Large losses in excess of our expectations were once again recorded in the 2020 financial year. Along with the Covid-19 pandemic, major losses were incurred from hurricanes and other weather phenomena in the United States, Australia and other regions as well as from the explosion at the Port of Beirut. The total net expenditure on major losses in Property & Casualty Reinsurance for Hannover Rück amounted to TEUR 1,186,428 (including Covid-19). The payments and amounts reserved in Property & Casualty reinsurance for Covid-19-related losses came to altogether TEUR 733,128 net and are attributable primarily to the insurance lines of business interruption, trade credit and event cancellation. Our Life & Health reinsurance business group was similarly impacted by the effects of the Covid-19 pandemic, albeit to a far lesser extent than in Property & Casualty reinsurance. Altogether, the paid losses and reserves relating to Covid-19 in Life & Health reinsurance amounted to around TEUR 100,000.

Ordinary investment income including deposit interest came in significantly above the previous year's level at TEUR 1,600,833, primarily due to a higher distribution from our investment holding companies that was influenced by a one-time effect. Despite the low level of interest rates, we booked relatively stable ordinary income from fixed-income securities at TEUR 485,004. Net gains of TEUR 166,249 were realised on disposals. A cautious investment policy in 2020 resulted in less regrouping of fixed-income securities than in the previous year.

Write-downs of TEUR 34,378 were taken on investments, for the most part on bearer debt securities held as current assets and in the area of alternative investments. The write-downs contrasted with write-ups of TEUR 1,522 that were made on assets written down in previous periods in order to reflect increased fair values.

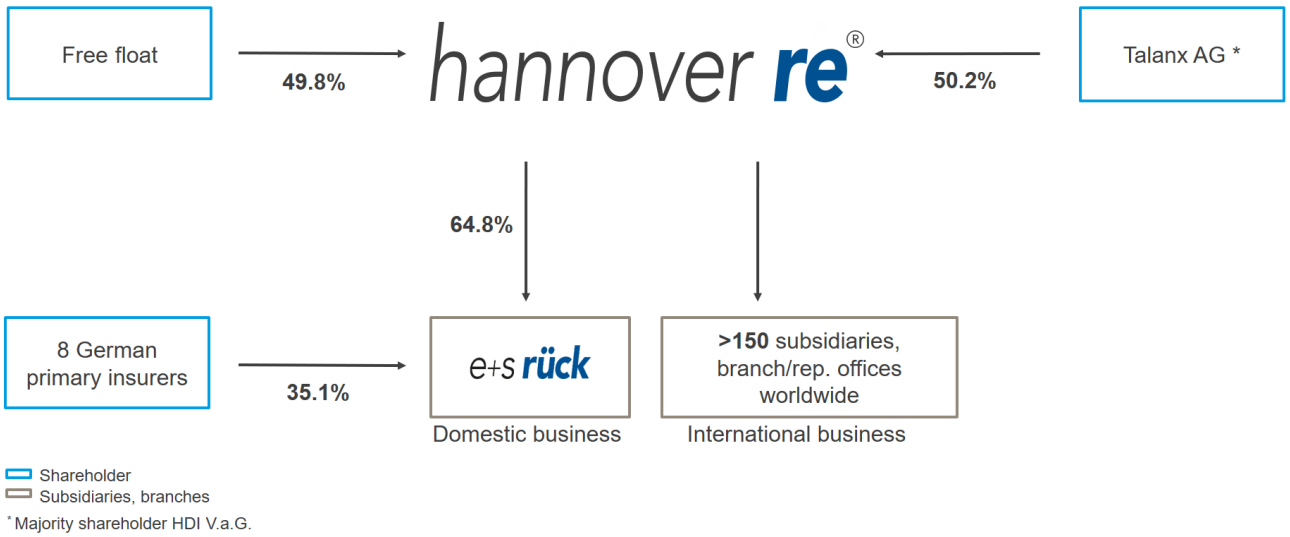
All in all, the net investment result increased to TEUR 1,673,282.

The profit on ordinary activities contracted to TEUR 393,769. The year under review closed with a profit for the year of TEUR 386,813.

A.1.3 Headquarters, supervisors and auditors

Hannover Rück is a European stock corporation, Societas Europaea (SE), with its headquarters located in Karl-Wiechert-Allee 50, 30625 Hannover, Germany and has been entered in the Commercial Register of the District Court of Hannover under the number HR Hannover B 6778. A rounded 50.2% of Hannover Rück shares are held by Talanx AG, Hannover, which in turn is majority-owned – with an interest of 79.0% – by HDI Haftpflichtverband der Deutschen Industrie V.a.G. (HDI), Hannover.

Shareholders, subsidiaries and branches



Hannover Rück as well as Talanx and HDI are supervised by the Federal Financial Supervisory Authority (BaFin).

Address of Federal Financial Supervisory Authority (BaFin)

Graurheindorfer Straße 108
53117 Bonn
Germany

alternatively:
Postbox 1253
53002 Bonn
Germany

Contact details of Federal Financial Supervisory Authority (BaFin)

Phone +49 22 8 / 41 08-0
Fax +49 22 8 / 41 08-15 50

E-mail poststelle@bafin.de or De-Mail poststelle@bafin.de-mail.de

Talanx AG is located in Riethorst 2, 30659 Hannover, Germany.

The Group auditor appointed for Hannover Rück within the meaning of Section 318 of the HGB is PricewaterhouseCoopers GmbH, Wirtschaftsprüfungsgesellschaft, Fuhrberger Straße 5, 30625 Hannover, Germany.

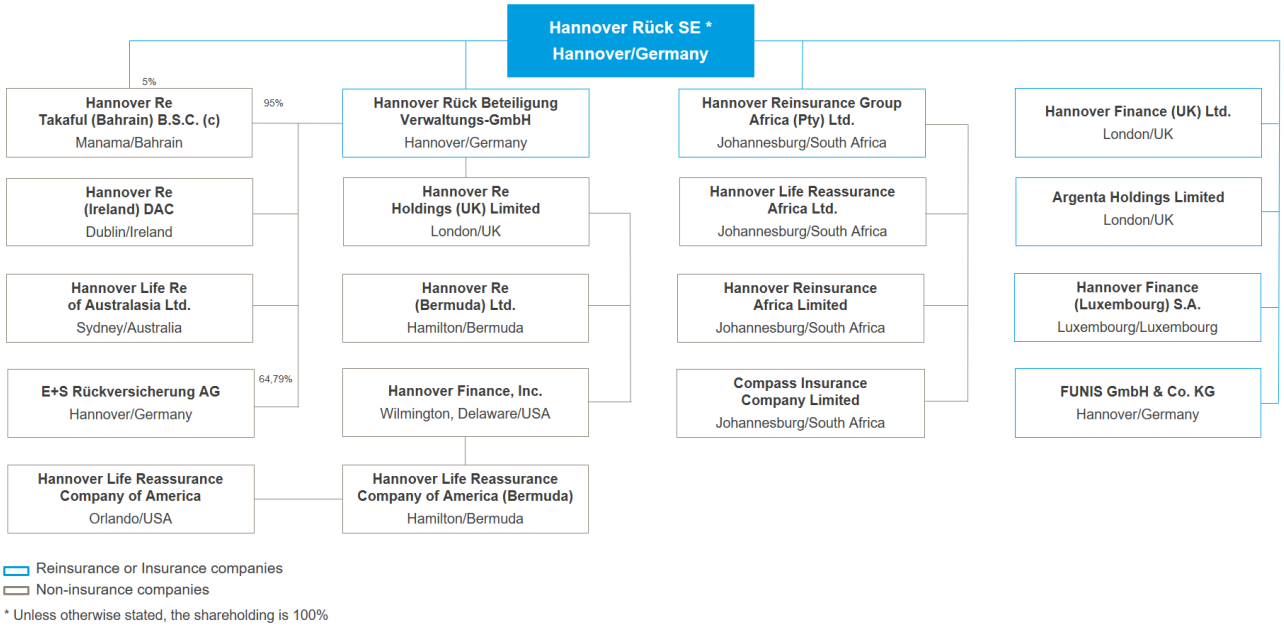
A.1.4 Group structure

This report refers to Hannover Rück SE on a stand-alone basis. As Hannover Rück SE also operates as the parent company of a group, we also provide information in this section about the group structure.

The company's network consists of more than 170 subsidiaries, affiliates, branches and representative offices worldwide with of 3,218 staff.

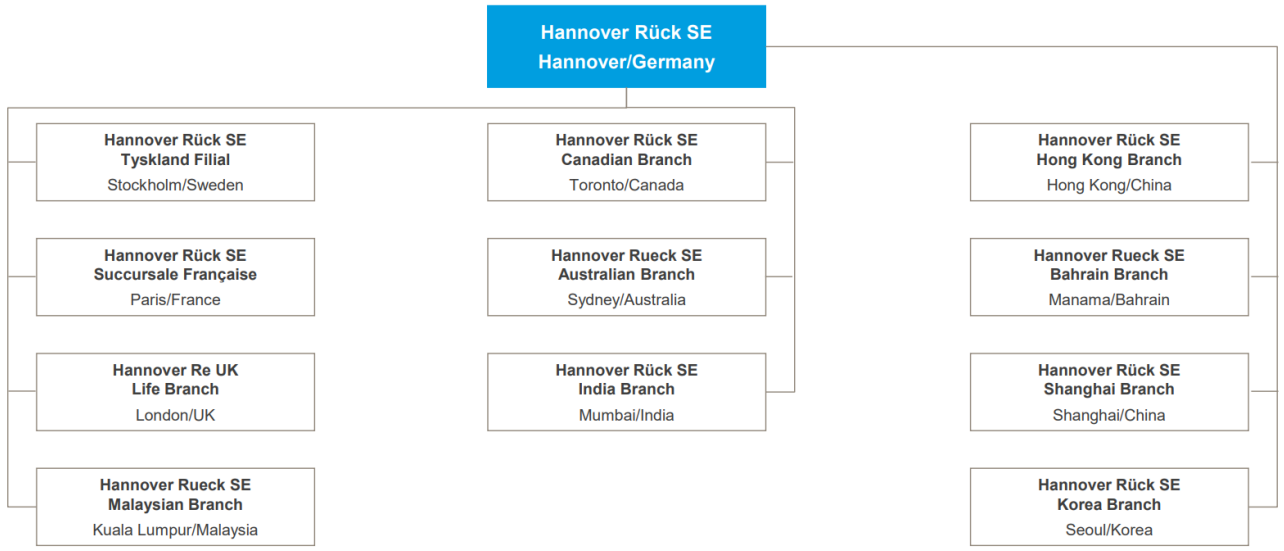
Subsidiaries and branches of Hannover Rück SE are presented in the following charts.

Subsidiaries of Hannover Rück SE



* Unless otherwise stated, the shareholding is 100%

Branches of Hannover Rück SE



A.1.5 Material related undertakings

Our major shares in affiliated companies and participations are listed below.

List of major shareholdings
Hannover Rück Beteiligung Verwaltungs-GmbH, Hannover / Germany
E+S Rückversicherung AG, Hannover / Germany
Hannover Re Holdings (UK) Limited, London / UK
Hannover Re (Bermuda) Ltd., Hamilton / Bermuda
Hannover ReTakaful B.S.C. (c), Manama / Bahrain
Hannover Life Reassurance Company of America, Orlando / USA
Hannover Life Reassurance Company of America (Bermuda) Ltd., Hamilton / Bermuda
Hannover Life Re of Australasia Ltd, Sydney / Australia
Hannover Re (Ireland) Designated Activity Company, Dublin / Ireland
Hannover Finance (Luxembourg) S.A., Leudelange / Luxemburg
Sureify Labs Inc., Wilmington / USA
Inter Hannover (No.1) Limited, London / UK
Hannover Finance (UK) Limited, London / UK
Hannover Services (UK) Limited, London / UK
Hannover Finance, Inc.,Wilmington / USA
Glencar Insurance Company, Orlando / USA
Kubera Insurance (SAC) Ltd., Hamilton / Bermuda
Hannover Reinsurance Group Africa (Pty) Ltd., Johannesburg / South Africa
Hannover Reinsurance Group Africa (Pty) Ltd prepares its own subgroup financial statements which includes the following companies:
Hannover Reinsurance Africa Limited, Johannesburg / South Africa
Hannover Life Reassurance Africa Limited, Johannesburg / South Africa
Compass Insurance Company Limited, Johannesburg / South Africa
Lireas Holdings (Pty) Ltd., Johannesburg / South Africa
HILSP Komplementär GmbH, Hannover / Germany
Leine Investment General Partner S.à r.l., Luxemburg / Luxemburg
Leine Investment SICAV-SIF, Luxemburg / Luxemburg
LI RE, Hamilton / Bermuda
FUNIS GmbH & Co. KG, Hannover / Germany
Glencar Underwriting Managers, Inc., Chicago / USA
Integra Insurance Solutions Limited, Bradford / UK
Monument Insurance Group Limited, Hamilton / Bermuda
Reaseguradora del Ecuador S.A., Guayaquil / Ecuador
Trinity Underwriting Managers Ltd., Toronto / Canada
SWISS INSUREVOLUTION PARTNERS Holding (FL) AG, Triesen / Liechtenstein
SWISS INSUREVOLUTION PARTNERS Holding (CH) AG, Zurich / Switzerland
HDI Global Specialty SE, Hannover / Germany
Svedea AB, Stockholm / Sweden
HANNOVER Finanz GmbH, Hannover / Germany
Kaith Re Ltd., Hamilton / Bermuda
U FOR LIFE SDN. BHD., Petaling Jaya / Malaysia
WeHaCo Unternehmensbeteiligungs-GmbH, Hannover / Germany
Meribel Mottaret Limited, St. Helier / Jersey

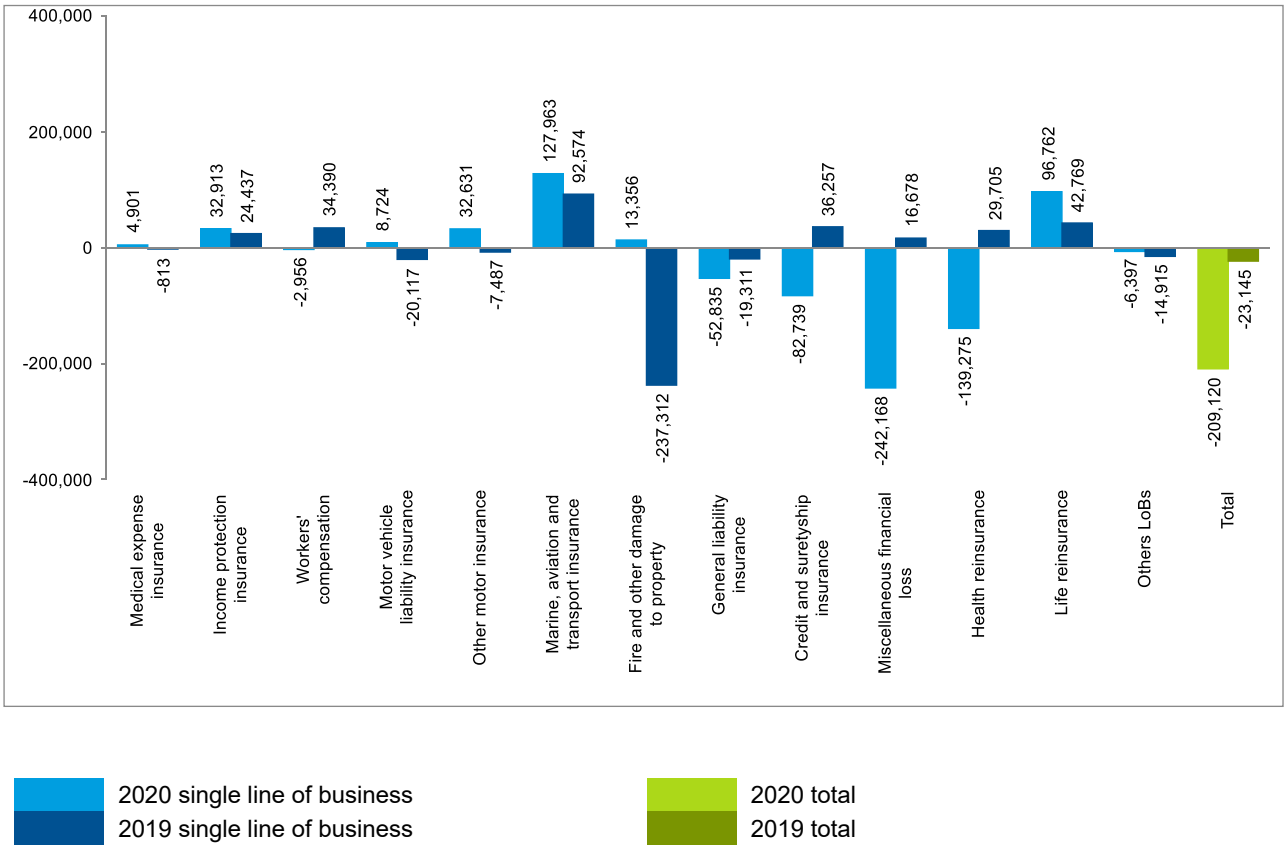
FinLeap GmbH, Berlin / Germany
HAPEP II Komplementär GmbH, Hannover / Germany
Hannover America Private Equity Partners II GmbH & Co. KG, Hannover / Germany
HAPEP II Holding GmbH, Hannover / Germany
Hannover Re Euro PE Holdings GmbH & Co. KG, Hannover / Germany
Hannover Re Global Alternatives GmbH & Co KG, Hannover / Germany
HR US Infra Debt LP, George Town / Cayman islands
PAG Real Estate Asia Select Fund Limited, George Town / Cayman islands
Hannover Re Euro RE Holdings GmbH, Hannover / Germany
HR GLL Central Europe GmbH & Co. KG, München / Germany
Hannover Re Real Estate Holdings, Inc., Orlando / USA
Hannover Re Real Estate Holdings, Inc. prepares its own subgroup financial statements which includes the following companies:
GLL HRE CORE Properties, L.P., Wilmington / USA
HR US Infra Equity LP, Wilmington / USA
Argenta Holdings Limited, London / UK
Argenta Holdings Limited prepares its own subgroup financial statements which includes the following companies:
Argenta Private Capital Limited, London / UK
Argenta Syndicate Management Limited, London / UK
Argenta Tax & Corporate Services Limited, London / UK
Argenta Underwriting Asia Pte. Ltd., Singapore / Singapore
Argenta Underwriting No.1 Limited, London / UK
Argenta Underwriting No.2 Limited, London / UK
Argenta Underwriting No.3 Limited, London / UK
Argenta Underwriting No.4 Limited, London / UK
Argenta Underwriting No.7 Limited, London / UK
Argenta Underwriting No.9 Limited, London / UK
Argenta Underwriting No.10 Limited, London / UK
Argenta Underwriting No.11 Limited, London / UK
Argenta No.13 Limited, London / UK
Argenta No.14 Limited, London / UK
Argenta No.15 Limited, London / UK
Argenta No.16 Limited, London / UK
Residual Services Limited, London / UK

A.2 Underwriting performance

With technical income of TEUR 13,112,683 (2019: TEUR 12,364,012) and technical expenses of TEUR 13,321,803 (TEUR 12,387,157), Hannover Re booked a total technical result in accordance with the German Commercial Code of TEUR -209,120 in the 2020 financial year after TEUR -23,145 in the previous year.

Broken down into lines of business pursuant to Annex I of the Delegated Regulation, the split of the technical result (net) for the business years 2019 and 2020 is as follows:

Technical result (net) – Breakdown by lines of business
in TEUR



Measured in terms of premium volume and the total technical result in the 2020 financial year, the material lines of business are marine, aviation and transport insurance (TEUR 127,963), life reinsurance (TEUR 96,762), fire and other damage to property insurance (TEUR 13,356), general liability insurance (TEUR -52,835), credit and suretyship insurance (TEUR -82,739), health reinsurance (TEUR -139,275) and miscellaneous financial loss (TEUR -242,168).

In marine, aviation and transport insurance, claims incurred were lower against a backdrop of increased net premium earned (TEUR 432,440 after TEUR 366,481). This can be attributed primarily to falling claims expenditures, which are opposed by higher operating expenses. The technical result increased by TEUR 35,389 to TEUR 127,963.

Growth in US and Group business as well as increases in the Advanced Solutions segment were the main factors in the rise in net premium earned in the line fire and other damage to property insurance. In relation to this increase, both a lower burden of losses and reduced reserve allocations were recorded. The claims burden relates to various events in a number of countries, with a lower amount overall than in the previous year. Notable events in 2019 were typhoon "Hagibis", uprisings and protests in Chile as well as a fire at an oil refinery in the United States. The technical result consequently amounts to TEUR 13,356 from TEUR -237,312.

In 2020 net premium earned in the general liability line increased to TEUR 1,631,591 from TEUR 1,490,239 in the previous year. This was attributable primarily to growing US business. The reserves constituted in 2020 were more substantial than in 2019. Losses were recorded inter alia from an accident at a French nuclear power plant (Paluel) and in connection with run-offs. This leads to a reduced technical result of TEUR -52,835 compared to TEUR -19,311.

The decline in net premium earned in credit and suretyship insurance results from the termination of a Group-internal retrocession agreement. With incurred claims and operating expenses virtually unchanged, a technical loss of TEUR -82,739 is reported after a profit of TEUR 36,257 in the previous year.

The most notable items reported under the line miscellaneous financial loss are other financial losses and other business interruption losses. The claims incurred are attributable almost entirely to losses connected with the Covid-19 pandemic, which made extensive reserving necessary.

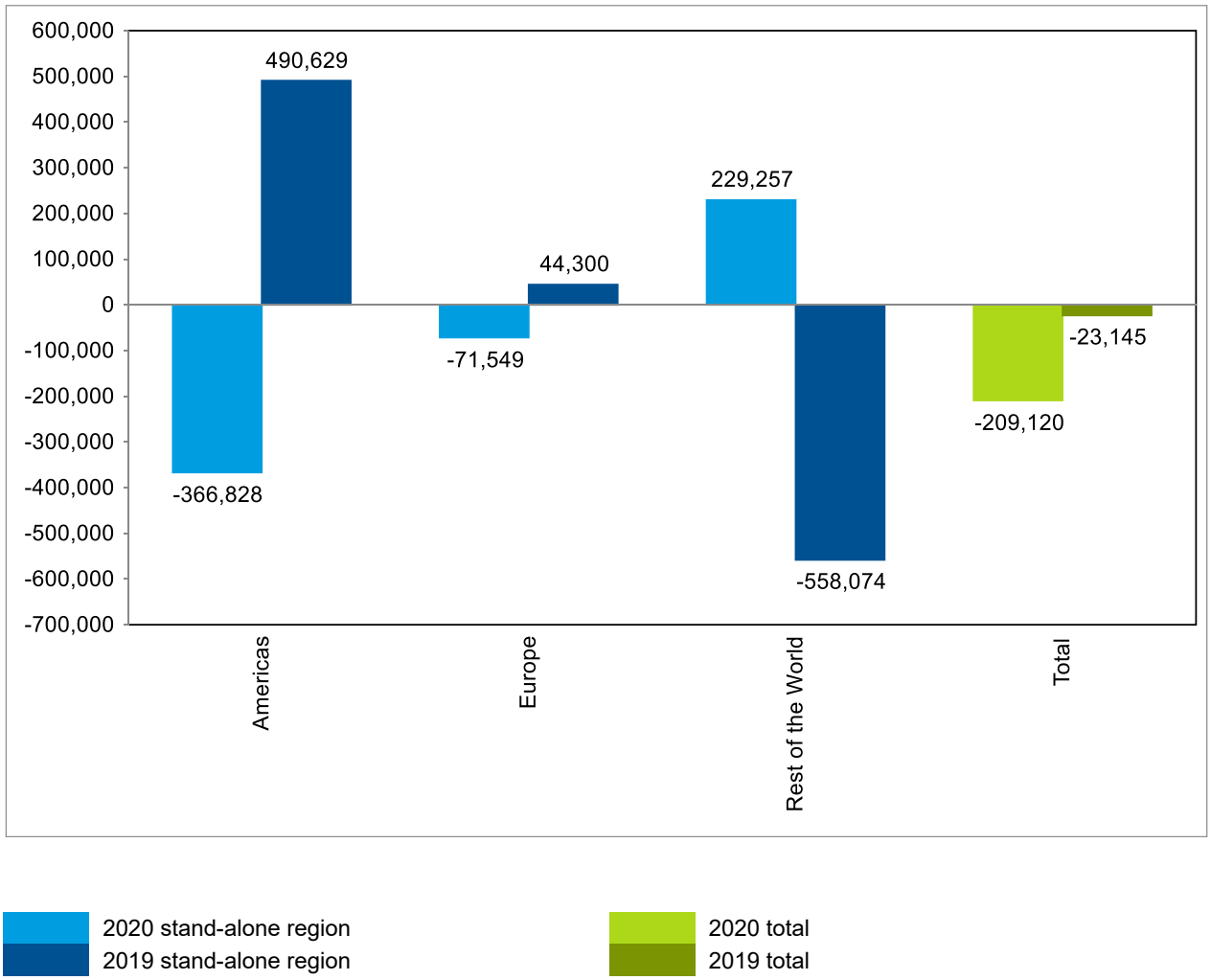
The health reinsurance business shows a slight increase in premium volume for the reporting period (TEUR 1,458,570, 2019: TEUR 1,279,451). The decrease in the technical underwriting result (TEUR -139,275) is mainly attributable to higher than expected losses and reserves set aside in connection with the Covid 19 pandemic.

A worldwide network of subsidiaries, branches and service companies administers the life reinsurance business. This decentralised approach combined with the worldwide expertise of Hannover Rück enables us to deliver individually tailored and comprehensive customer support. In the past reporting period, the net premium earned of TEUR 2,887,836 remained almost constant compared to the previous year (TEUR 2,830,284). The technical underwriting result was positively impacted from the development of our Financial Solutions and Longevity business and increased to TEUR 96,762 (previous year: TEUR 42,769).

The category "Other lines of business" recognises the areas of legal expenses insurance and assistance insurance.

Grouped by geographical areas, the net technical result breaks down as follows:

Technical result (net) – Regional breakdown
in TEUR



The technical result is lower overall. In the Americas it contracted from TEUR 490,629 to TEUR -366,828. The result in the rest of the world developed very favourably (TEUR 229,257 from TEUR -558,074), while in Europe the result softened to TEUR -71,549 from TEUR 44,300.

The increase in the rest of the world is crucially driven by the continuation of a financing transaction with a subsidiary in Australia in the life reinsurance line. At the same time, the result on the outward side deteriorated due to the retrocession of this business to a subsidiary in Bermuda, as reflected in the result of the "Americas" region.

A.3 Investment Performance

As an insurance company, we naturally focus primarily on value retention when managing our capital investments and attach great importance to the stability of the resulting returns. For this reason, we align our investment portfolio with the principles of a balanced risk / return ratio and a broad level of diversification. With an overall low-risk mix, our investments reflect both the currency and maturity

profile of our liabilities. Our portfolio contains a high level of fixed interest securities, so that credit and spread risks account for the main contribution to market risk.

We are very satisfied with the development of our investments. In the first half of the reporting period, the investment environment, which has been challenging again and again in recent years, at times eclipsed everything that has been seen on the capital markets over the last ten years. After initial euphoria in January, there were strong market reactions to the rapid spread and the possible economic consequences of the Covid-19-pandemic in the final weeks of the first quarter. Nevertheless, we were able to significantly surpass the already very good result of the previous year.

At TEUR 1,600,833, ordinary investment income, including interest from funds withheld, was significantly higher than in the previous year (TEUR 1,109,985), mainly due to higher dividends from our holding companies due to a one-off effect. Despite the low interest rate level, we were able to achieve a relatively stable ordinary income from fixed-income securities of TEUR 485,004 (TEUR 508,211). We realized gains from the disposal of investments in a net amount of TEUR 166,165 (TEUR 220,902). A cautious investment policy in 2020 led to a lower level of reallocations of fixed-income securities compared to the previous year, which consequently meant that the gains from the disposal of securities were lower.

Impairments of investments in the amount of TEUR 34,287 (TEUR 11,419) had to be recognized. They were mainly attributable to bearer bonds within our portfolio of current assets and to alternative investments. In view of the increased market value, we also recognized minor appreciations on investments depreciated in previous periods amounting to TEUR 1,522 (TEUR 50,259).

Overall, our net investment income rose to TEUR 1,672.693 (TEUR 1,325,821).

The following overview displays how the investment result achieved by Hannover Rück pursuant to the HGB is broken down into its individual asset classes according to Solvency II, and which part contains income and expenses respectively.

Investment income

in TEUR	Ordinary income	Realised gains	Write-ups	Other income
Property, plant & equipment held for own use	2,854			
Property (other than for own use)	1,074			
Holdings in related undertakings, including participations	900,111			
Equities - listed	255	54		
Equities - unlisted				
Government Bonds	198,136	131,978	803	
Corporate Bonds	263,767	64,340	705	
Structured notes				
Collateralised securities	15,132	191		
Collective Investments Undertakings	27,832	4,363		11
Derivatives	7,511			
Loans	207			
Deposits other than cash equivalents	16,058			
Deposits to cedants	167,826		14	
Cash and cash equivalents	70			
Total	**1,600,833**	**200,926**	**1,522**	**11**

Investment expenses

in TEUR	Write-downs	Realised losses	Other expenses
Property, plant & equipment held for own use	−609		−2,179
Property (other than for own use)	−245		−574
Holdings in related undertakings, including participations	−11,299		−19,382
Equities - listed		0	−5
Equities - unlisted		0	
Government Bonds	−9,267	−16,614	−4,266
Corporate Bonds	−2,645	−16,314	−5,674
Structured notes			
Collateralised securities		−1,749	−326
Collective Investments Undertakings	−10,222	−84	−599
Derivatives			−23,638
Loans			−264
Deposits other than cash equivalents			−400
Deposits to cedants			−3,614
Cash and cash equivalents			−41
Total	**−34,287**	**−34,761**	**−60,962**

Other expenses includes the fees for capital investment management as well as bank and custody fees. Insofar as these are not charged separately for the individual asset classes, they are distributed in the table across the individual items in accordance with their share in ordinary income.

Investment performance

in TEUR	2020			2019		
	Total investment income	Total investment expenses	Investment per- formance	Total investment income	Total investment expenses	Investment per- formance
Property, plant & equipment held for own use	2,854	−2,788	66	2,165	−2,387	−222
Property (other than for own use)	1,074	−819	255	1,381	−947	434
Holdings in related undertakings, including participations	900,111	−30,681	869,430	564,451	−9,030	555,420
Equities - listed	309	−5	304	231	−4	227
Equities - unlisted			0	0	0	0
Government Bonds	330,917	−30,147	300,770	267,802	−29,910	237,892
Corporate Bonds	328,812	−24,633	304,179	357,435	−23,233	334,201
Structured notes			0	8,256	−121	8,135
Collateralised securities	15,323	−2,075	13,248	18,961	−1,436	17,526
Collective Investments Undertakings	32,206	−10,905	21,301	38,731	−2,509	36,222
Derivatives	7,511	−23,638	−16,127	1,371	−9,764	−8,393
Loans	207	−264	−57	9	−45	−37
Deposits other than cash equivalents	16,058	−400	15,658	10,822	−340	10,482
Deposits to cedants	167,840	−3,614	164,226	140,975	−7,108	133,867
Cash and cash equivalents	70	−41	29	55	−2	52
Total	**1,803,292**	**−130,010**	**1,673,282**	**1,412,644**	**−86,836**	**1,325,808**

Hannover Rück does not record any profits or losses directly in shareholders´equity in accordance with the HGB.

In the item “Collateralised securities” in the Solvency II balance sheet of Hannover Rück securitisations are recorded in the form of Collateralised Loan Obligations (CLO). The resulting income and expenses along with their composition can be taken from the above table. CLOs are assets-backed financial instruments, which consist of a portfolio of fixed income securities divided into several tranches. In principle, high rates of interest are to be viewed as the compensation for increasing probabilities of default, according to which the individual tranches are differentiated from one another. When investing in CLOs, every effort is made within a multilevel risk management system to ensure a sufficient level of investment diversification. In this regard, the capital investment guidelines established by Hannover Rück stipulate percentile maximum volumes for investments in CLOs and, in addition, lower maximum thresholds for the sub-category “CLO Equity Tranches”.

The volume of CLO positions held by Hannover Rück as of the balance sheet date can be found in the following table.

Collateralised Loan Obligations

in TEUR	Market value
Collateralised Loan Obligations	513,375
Total	**513,375**

A.4 Performance of other activities

A.4.1 Other income and expenses

The following table displays other income and expenses, disclosed as statutory account values HGB.

Other income

in TEUR	2020	2019
Exchange rate gains	105,402	71,144
Profit from services	34,071	25,292
0	9,277	10,963
Separate value adjustments on accounts receivable and retrocessions	7,998	9,020
Release of non-technical provisions	6,297	6,868
Interest pursuant to § 233 a AO (Fiscal Code)	5,690	3,543
Allocated investment return	4,958	4,059
Income from reinsurance contracts	4,549	4,706
profit from joint ventures	2,024	
Profit from clearing transactions	631	1,001
Amounts realised	68	49
Reimbursement of expenses	43	330
Income from discounting pursuant to § 277 (5) HGB (Commercial Code)	35	46
Other income	5,668	5,338
Total	**186,711**	**142,359**

Other expenses

in TEUR	2020	2019
Financing interest	87,904	90,272
Exchange rate losses	85,133	30,772
Deposit interest	72,017	68,141
Expenses for the company as a whole	60,469	60,811
Expenses from services	34,905	26,053
Separate value adjustments on accounts receivable and retrocessions	17,296	7,886
Expenses for joint ventures	7,800	4,726
Interest charges on old-age pension scheme	2,632	2,898
Expenses for letters of credit	2,109	1,758
Expenses from reinsurance contracts	1,197	1,139
Write-downs on accounts receivable	237	527
Interest charges from reinsurance transactions	205	213
Compounding of interest on provisions / expense from compounding pursuant to § 277 (5) HGB (Commercial Code)	43	47
Interest pursuant to § 233 a AO (Fiscal Code)	38	
Other interest and expenses	1,757	2,017
	373,742	297,260
Less: Technical interest	**7,619**	**5,997**
Total	**366,123**	**291,263**

A.4.2 Significant leasing agreements

There are no significant operating or financing-leasing agreements.

Individual operating leasing agreements exist related to office buildings.

A.5 Any other information

There is no other information to be reported.

B. System of Governance

B.1 General information on the System of Governance

The Hannover Rück has an effective system of governance in place which provides for sound and prudent management. The main elements of the System of Governance are described in the following sections.

B.1.1 Governance structure

B.1.1.1 Our Administrative, Management or Supervisory body

Our administrative, management or supervisory body consists of the Executive Board and the Supervisory Board.

Executive Board

The Executive Board consists of no less than two persons. Furthermore it is up to the Supervisory Board to determine the number of members of the Executive Board. The members of the Executive Board are appointed by the Supervisory Board for a term of five years. Re-appointments for five years maximum are permissible.

The following overview shows the allocation of the areas of responsibility to the members of the Executive Board as at 31 December:

Members of the Executive Board

Chairman	Chief Financial Officer	Property & Casualty Reinsurance			Life & Health Reinsurance	
Jean-Jacques Henchoz	Clemens Jungsthöfel	Dr. Michael Pickel	Sven Althoff	Silke Sehm	Claude Chèvre	Dr. Klaus Miller
Compliance Controlling Innovation Management Human Resources Management Internal Auditing Risk Management & Actuarial Corporate Development Corporate Communi-cations	Finance and Accounting Information Technology Investment and Collateral Management Facility Management	Property & Casualty Reinsurance: Germany, Switzerland, Austria and Italy Latin America, Iberian Peninsula and Agricultural Risks North America Group Legal Services Run-Off Solutions	Property & Casualty Reinsurance: Asia, Australia and Middle East Aviation and Marine Credit, Surety and Political Risks United Kingdom, Ireland and London Market Facultative Reinsurance Coordination of Property & Casualty Business Group Quotations	Property & Casualty Reinsurance: Continental Europe and Africa Catastrophe XL (Cat XL) Structured Reinsurance and Insurance-Linked Securities Retrocessions	Life & Health Reinsurance: Africa, Asia, Australia, Latin America, Middle East, Western and Southern Europe Longevity Solutions	Life & Health Reinsurance: North America, UK, Ireland, Northern, Eastern and Central Europe

The four (Solvency II) key functions are allocated to the Chairman of the Executive Board. For further information on key functions (Solvency II) please refer to Sections B.3-B.6.

Supervisory Board

The Supervisory Board consists of nine members appointed by the General Meeting. Of these nine members, three shall be appointed on recommendation by the employees. The General Meeting is bound by these recommendations for the appointment of the employees' representatives. Other than that, the General Meeting is not bound to proposed candidates. In the event that legal provisions concerning involvement of employees in a European Association (SE Beteiligungsgesetz - SEBG, Employees Involvement Act) provide for a different appointment procedure for representatives of the employees to the Supervisory Board, the employees' representatives are appointed according to the agreed appointment procedure.

Every member of the Supervisory Board can resign from his membership by adhering to a notice period of one month even without an important reason by written notice to the Company, represented by the Management Board and the Chairman of the Supervisory Board (if notice is given by the Chairman himself, to his deputy). The Chairman of the Supervisory Board may choose to forgo adherence to this notice period.

Appointment for a successor of a member who has resigned prior to termination of his term is for the remaining period of the term of the resigned member.

As of 31 December the Supervisory Board consists of the following members:

Members of the Supervisory Board and membership in committees

Members of the Supervisory Board	Standing Committee	Finance and Audit Committee	Nomination Committee	Staff representative
Torsten Leue, Chairman	X	X	X	
Herbert K. Haas, Deputy Chairman	X	X	X	
Natalie Bani Ardalan				X
Frauke Heitmüller				X
Ilka Hundeshagen				X
Dr. Ursula Lipowski		X		
Dr. Michael Ollmann				
Dr. Andrea Pollak			X	
Dr. Erhard Schipporeit	X			

The Supervisory Board may form committees from among its members and authorise them to pass resolutions, as far as permitted by law.

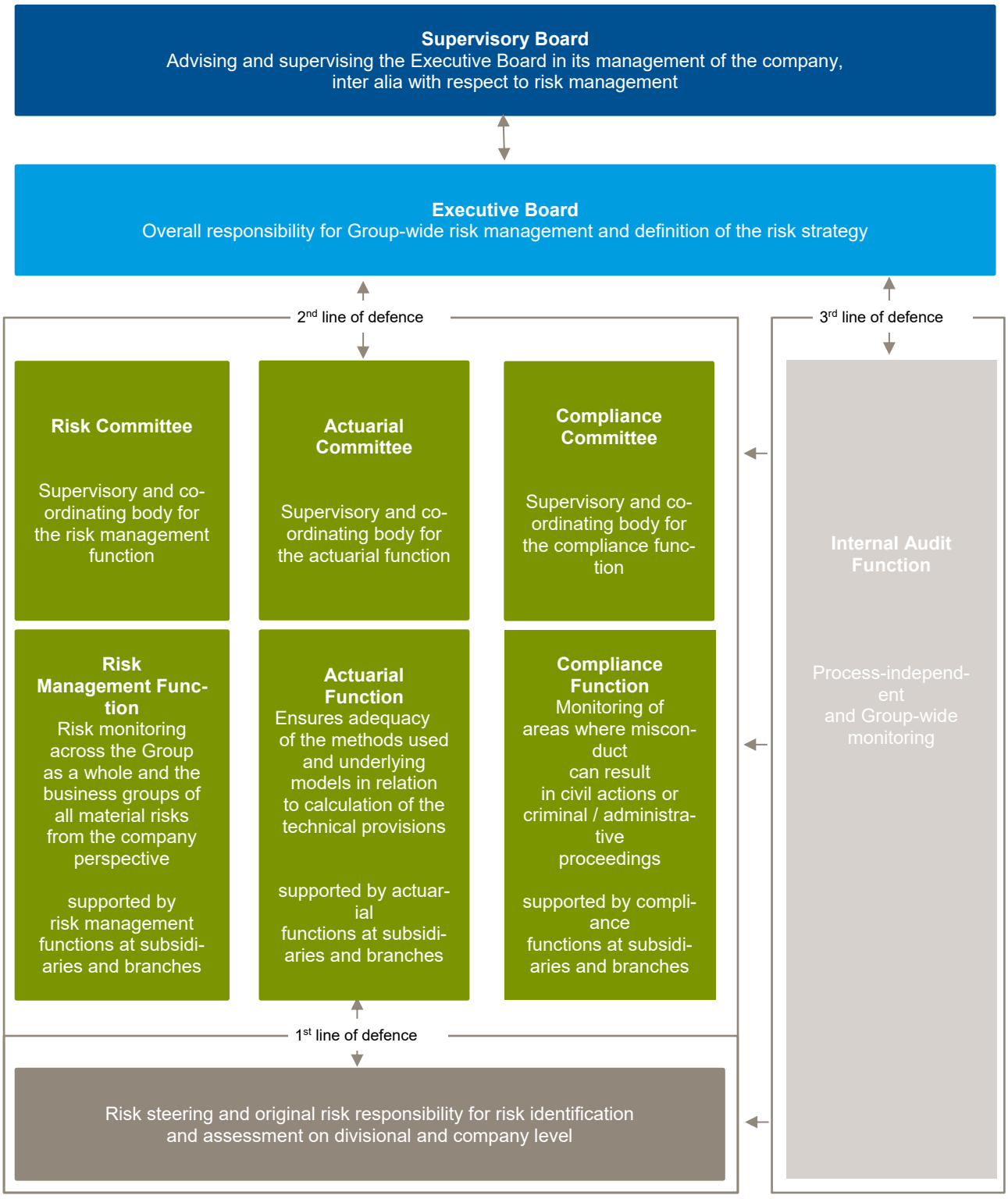
The Supervisory Board considered at length during the 2020 financial year the position and development of the company and its major subsidiaries. The implications of the Covid-19 crisis were a point of emphasis this year. The Supervisory Board advised the Executive Board on the direction of the company and monitored the management of business on the basis of written and verbal reports. The Supervisory Board of Hannover Rück SE held four regular meetings in order to adopt the necessary

resolutions after appropriate discussion. In addition, the Supervisory Board adopted two resolutions in the reporting period by a written procedure. In conformity with the applicable safeguards to reduce the risk of infection with Covid-19 the meetings were held in a hybrid format, i.e. with partially physical and partially virtual attendance. With the exception of the meeting in May, in which Dr. Lipowsky and Dr. Schipporeit were unable to participate, all the Supervisory Board members took part in the Supervisory Board meetings held in 2020. The meetings of the committees were duly attended in all cases by all the members of the respective bodies. In addition, two representatives of the Federal Financial Supervisory Authority attended two meetings of the Supervisory Board on a virtual basis. The Supervisory Board was informed by the Executive Board in writing and orally on the basis of the quarterly statements about the course of business as well as the position of the company and the Group. In the intervals between regular meetings, the Supervisory Board received inter alia written reports on material changes due to business impacts from Covid-19, the disclosure to the capital market regarding the communicated profit guidance for 2020 dated 21 April 2020 and on the company's position with respect to its dividend policy. With regard to reports on topics that fall under the responsibility of key functions, the Supervisory Board had an opportunity to engage directly in a dialogue with the respective key function holders. The quarterly reports with the components of the financial statements and the key figures for Hannover Re constituted an important source of information for the Supervisory Board. The Supervisory Board also held discussions without the presence of the Executive Board, inter alia regarding personnel matters on the level of the Executive Board and regularly in relation to matters of the Supervisory Board's internal organisation. We received an analysis of the 2019 results in Property & Casualty and Life & Health reinsurance as well as a presentation from the Executive Board covering the profit expectations for the 2020 financial year and the operational planning for the 2021 financial year. In addition, the Chairman of the Supervisory Board was constantly kept informed by the Chairman of the Executive Board of major developments and impending decisions as well as of the company's risk situation. All in all, the Supervisory Board was involved in decisions taken by the Executive Board and assured itself of the lawfulness, regularity and efficiency of the company's management as required by the statutory responsibilities and those placed upon us by the company's Articles of Association. No audit measures pursuant to § 111 Para. 2 Sentence 1 Stock Corporation Act (AktG) were required in the 2020 financial year.

There were no changes in the composition of the Supervisory Board or its committees in the year under review. The term of office of the company's Supervisory Board ends pursuant to § 10 Para 3 of the Articles of Association of Hannover Rück SE at the end of the General Meeting that ratifies the acts of management for the 2023 financial year. Effective 1 September 2020 we appointed Mr. Clemens Jungsthöfel to the Executive Board so that he could take over as Chief Financial Officer from Mr. Roland Vogel on 30 September, following the latter's retirement.

B.1.1.2 Key functions

The following graph gives an overview of the main tasks and the interaction of the main elements of the System of Governance including the key functions:



The organisation and collective effort of individual functions are decisive for our internal risk management and control system. In our system the central functions are closely interlinked with one another and the roles, tasks and reporting lines are both clearly defined and documented in the context of the so-called three lines of defence. The first line of defence consists of risk control and the original responsibility for risk at divisional and / or company level. The risk management function ensures the second line of defence – risk monitoring. It also receives support from the actuarial function and the compliance function. The third line of defence consists of process-independent monitoring executed by the internal audit function.

All key functions are equipped with appropriate resources and skills. The reporting lines to one another and to the Board Member responsible for the division respectively to the Executive Board have been clearly defined.

B.1.2 Remuneration policy

B.1.2.1 Remuneration of the executive board

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

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

The profit- and performance-based remuneration (variable remuneration) is contingent on certain defined results and the attainment of certain set targets. The set targets vary according to the function of the Board member in question. The variable remuneration consists of a profit bonus and a performance bonus. The variable remuneration is defined at the Supervisory Board meeting that approves the consolidated financial statement for the financial year just ended.

The total remuneration received by the Executive Board of Hannover Rück amounts to TEUR 7,560.

B.1.2.2 Remuneration of the supervisory board

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

The total remuneration received by the Supervisory Board of Hannover Rück amounts to TEUR 760.

B.1.2.3 Remuneration of staff and senior executives

The remuneration scheme for senior executives below the Executive Board (management levels 2 and 3) consists of a fixed annual salary and a system of variable remuneration. This is comprised of a short-term variable remuneration component, the annual cash bonus, and a long-term share-based remuneration component, the Share Award Plan.

Members of staff on the levels of Chief Manager, Senior Manager and Manager are also able to participate in a variable remuneration system through the Group Performance Bonus (GPB). The Group Performance Bonus (GPB) is a remuneration model that is linked to the success of the company.

B.1.3 Related party transactions

Talanx AG holds an unchanged majority interest of 50.22% in Hannover Rück SE. For its part, HDI Haftpflichtverband der Deutschen Industrie Versicherungsverein auf Gegenseitigkeit (HDI), Hannover, holds a stake of 79.0% in Talanx AG.

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 & Casualty reinsurance. E+S Rückversicherung AG and Hannover Rück SE bear exclusive responsibility for German business and for international markets respectively.

Companies belonging to the Talanx Group granted the Hannover Re Group insurance protection inter alia in the areas of public liability, building, contractors all risks, group accident and business travel insurance. Divisions of Talanx AG also performed services for the Hannover Re Group in the areas of taxes and general administration. Divisions of Hannover Rück SE performed services in connection with the insurance and reinsurance business of HDI Global Specialty SE, a joint venture of Hannover Rück SE and HDI Global SE. Talanx Reinsurance Broker GmbH and Talanx AG grant 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 GmbH or Talanx 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 that are not included in the Hannover Re Group’s consolidation. This includes business both assumed and ceded at usual market conditions. In addition, other assets of EUR 3.0 million (EUR 3.4 million) as well as other liabilities of EUR 36.3 million (EUR 41.5 million) exist with respect to Talanx AG and its subsidiaries which are not part of the scope of consolidation of Hannover Re.

In the context of a bond issue by Talanx AG the Group companies Hannover Rück SE and E+S Rückversicherung AG invested in a nominal amount of EUR 47.0 million in the issued bearer debt, which has a coupon of 3.125%. The carrying amount of the instrument, which is recognised under fixed-income securities held to maturity, was EUR 48.3 million (EUR 48.3 million) including accrued interest of EUR 1.3 million (EUR 1.3 million). HDI Lebensversicherung AG, Cologne, participated in a nominal amount of EUR 50.0 million in the subordinated bond issued by Hannover Rück SE in September 2014 with a coupon of 3.375%.

Within the contractually agreed framework Ampega Asset Management GmbH performs investment and asset management services for Hannover Rück SE and the vast majority of its subsidiaries. A

total amount of EUR 48.7 million (EUR 43.9 million) was expensed for the rendering of these services in the financial year just ended. Assets in special funds are managed by Ampega Investment GmbH. Ampega Real Estate GmbH performs services for Hannover Re under a number of management contracts. Hannover Rück SE has concluded agreements with Ampega Asset Management GmbH, HDI Global Specialty SE, Talanx Reinsurance Broker GmbH and Svedea AB that enable these companies to use software for screening sanctions lists.

Under long-term lease arrangements companies belonging to the Hannover Re Group rented out business premises in 2015 to HDI Service AG, Hannover. Furthermore, IT and management services were performed for Talanx Reinsurance Broker GmbH, Hannover, under service contracts.

Actuarial opinions with respect to the pension commitments given to staff are drawn up for Hannover Rück SE and E+S Rückversicherung AG by HDI Pensionsmanagement AG and HDI Lebensversicherung AG under an actuarial service contract.

Talanx AG performs various services in the area of taxes for a number of investment vehicles of the Hannover Re Group in the asset classes of private equity and real estate. In this regard corresponding agreements have been concluded with altogether nine Hannover Re companies.

Since 2012 a service agreement exists between Hannover Rück SE and Talanx AG regarding the use of data acquisition software for Group accounting purposes.

Hannover Rück SE has concluded a service contract with HDI Service AG in the area of flight services as well as a contract regarding the reciprocal provision of business continuity management services.

Since 2004 a service agreement exists between Hannover Rück SE, E+S Rückversicherung AG and Talanx Reinsurance Broker GmbH regarding the use of market security services and access to the business partner information system of Hannover Rück SE.

The members of the governing bodies did not receive any advances or loans in the year under review. Nor were there any other material reportable circumstances or contractual relationships as defined by IAS 24 between companies of the Hannover Rück and the members of the governing bodies in the year under review.

B.2 Fit and proper requirements

B.2.1 Requirements

On 16 October 2015, the framework directive of Hannover Rück pertaining to the fulfilment of the Fit & Proper requirements in the Hannover Re Group was decreed by the Executive Board.

B.2.2 Description of requirements

The professional qualification (fitness) of individuals with key functions refers to a professional qualification suitable for the respective position as well as skills and experience, which are necessary for a robust and cautious management approach, and for the fulfilment of the position. The appropriateness is assessed according to the principle of proportionality, and takes into account the company-individual risks along with the type and scope of business operations. Specialist fitness requirements stemming from established supervisory practices are to be complied with by those individuals who

actually head up the company, and the members of the Supervisory Board. Collective fitness requirements have been established for mutual controlling and monitoring. The requirements placed on the professional qualification of those holding key functions are closely linked with the special features of the respective governance tasks.

Individuals with key functions must, as part of personal reliability (propriety), act responsibly and with integrity, and carry out activities both dutifully and with the necessary level of care. Conflicts of interest must be avoided and the individual must not have demonstrated a lack of responsibility in the form of criminal actions prior to their nomination / appointment. There is no requirement for personal reliability to be positively established. It will be assumed, whenever there are no observable facts indicating the contrary. Unreliability is only to be assumed if personal circumstances according to general life experience give reason to believe that this could undermine the thorough and proper exercising of the function.

For Hannover Rück, the circle of individuals entrusted with key tasks consists of persons who

- actually head up the company (Executive Board members) including the authorised representatives of an EU / EEA branch,
- hold other key functions (members of the Supervisory Board, owners of one of the key functions including compliance, internal audit, risk management, actuarial function).

With regard to their various roles, these individuals are required to provide evidence of their professional qualifications in different areas as follows:

- Educational background
- Practical knowledge
- Management experience
- Language skills
- Required specialist knowledge in relation to the relevant key function
- Collective requirements

The professional and personal requirements for members of the Supervisory Board are comprised in a guideline document since 2017.

In the event that key functions are outsourced, general requirements for this are defined within a group policy. The onus remains on the side of the outsourcing company to ensure that the individuals deployed by the service provider who are responsible for the key function have suitable professional qualifications and are personally reliable. In accordance with supervisory regulations, the outsourcing company has to appoint an outsourcing officer for this purpose, who, where appropriate, is subject to registration with the regulatory body accordingly as the person responsible for the relevant key function within the company. The overseeing outsourcing official is hereby responsible for the proper fulfilment of the duties associated with the outsourcing of the key function.

No key functions were outsourced in 2020.

B.2.3 Evaluation process

The requirements and reporting processes with respect to the supervisory authority correspond to the current standard processes based on the BaFin information sheets on professional competence and reliability.

Pursuant to the framework directive on the fulfilment of the Fit & Proper requirements, at the preliminary stage of recruiting new members of staff who will actually head up the company or hold other key roles, a detailed curriculum vitae will be submitted and a requirements profile set, which detail and describe the necessary qualifications. The framework directive pertaining to the fulfilment of Fit & Proper requirements contains a checklist in the attachment, which is to be used in the assessment of the Fit & Proper requirements of these individuals. The requirements profile contains evidence of the following minimum requirements:

Description of the position with key functions:

- Performance catalogue (job description)
- Authority to make decisions
- Level of staff responsibility

Professional qualification (general):

- Level of education (commercial or vocational training)
- University degree or professional standard (such as, for example, for auditors or actuaries)
- Knowledge and understanding of business strategy
- Knowledge of the system of governance
- Foreign language skills, minimum of English language and other foreign languages where possible

Professional qualification (depending on the particular position):

- Industry experience
- Knowledge and understanding of the business model
- Ability to interpret accounting and actuarial data
- Knowledge and understanding of the regulatory frameworks affecting the company
- Expertise in personnel management, staff selection, succession planning

The required specific knowledge for owners of one of the key functions including compliance, internal audit, risk management, and actuarial mathematics is included in the referred role description.

The procedure for assessing the transfer of tasks stipulates that, at the preliminary stage of recruiting new members of staff, a detailled curriculum vitae must be submitted and a requirements profile must be set, which contains the verification of predefined minimum requirements. The continual safeguarding of compliance with the relevant requirements is undertaken every five years in the form of an assessment of the requirements profile, undertaken by the responsible organisational unit.

As part of the event-driven assessment, any significant changes in the underlying parameters trigger an assessment of the compliance with the catalogue of requirements. This involves a differentiation of the characteristics deemed necessary in the person and in the position.

The assessment and control procedures are summarised in an overview, which contains the assessment cycle of the requirements profile and the responsibility for the assessment and duty to inform held by those individuals who actually head up the company, and those individuals who have other key functions.

B.3 Risk Management System including the Own Risk and Solvency Assessment

B.3.1 Risk management system including risk management function

B.3.1.1 Strategy implementation

Our corporate strategy 2018-2020 encompasses ten guiding principles that safeguard the realisation of our vision “Creating value through reinsurance” across the various divisions.

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

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

In the year under review, the Group strategy of Hannover Re was revised for the strategy cycle 2021-2023. Our strategy is based on the interplay between performance drivers, performance enablers and solid fundamentals. Robust governance and risk management, integrated compliance and corporate social responsibility establish the foundation for our growth as a trusted global reinsurance partner.

The risk strategy, the risk register and the 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 Group net income with a probability of 90% p.a. Our solvency ratio is subject to a limit of 180% and a threshold of 200%. Countermeasures would be triggered if the solvency ratio was 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 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.

B.3.1.2 Risk capital

In the interests of our shareholders, clients and employees 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 Hannover Rück is a stochastic enterprise model. It covers all subsidiaries and business groups of Hannover Rück. The central variable in risk and enterprise management is the economic capital,

which is calculated according to market-consistent measurement principles and also constitutes the basis for calculating the own funds under Solvency II.

Hannover Re calculates the required risk capital as the Value at Risk (VaR) of the change of economic capital over a period of one year with a confidence level of 99.5%, in accordance with Solvency II. Hannover Re received the approval already in 2017 by BaFin to calculate the regulatory capital requirements with a full internal model.

Hannover Re has defined a limit for its Solvency II ratio of 180% and a threshold of 200%.

The capitalisation prescribed by regulatory requirements diverges from the capitalisation shown in accordance with the Hannover Re's internal valuation and capital model. The difference arises from the haircut on own fund contributions for non-controlling interests in Solvency II.

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 Rück is analysed by the rating agencies Standard & Poor's (S & P) and A.M. Best as part of an interactive rating process. The current financial strength is assessed as "AA-" (Very Strong, stable outlook) by Standard & Poor's and "A+" (Superior, stable outlook) by A.M. Best. Therein S&P as well as A.M. Best evaluate Hannover Rück's risk management as an important aspect in the financial strength assessment.

B.3.1.3 Internal model governance

The governance of the internal model is defined in a number of documents and policies. In particular, governance rules include roles, responsibilities and standards for changes to the internal model and model validation as well as standards for internal and external data and expert settings used in the internal model. The rules have been set-up in compliance with the requirements of Solvency II.

The risk management function provides quarterly reports on internal model results and changes to the Executive Board and the Risk Committee. The reporting supports the tracking of changes to the risk profile and the solvency ratio over time. Apart from this reporting, internal model results are embedded in the essential internal steering processes such as capital cost allocation and new product evaluation.

The annual model validation ensures that the internal model meets all defined quality standards of the policies. The Solvency II directive requires that the validation is performed as an independent process. Therefore, Hannover Rück has set-up a validation process which assigns validation to departments different from the departments responsible for model operation, calibration and maintenance. The validation report includes numerous stress tests and sensitivity analyses.

There have not been any significant changes in the model governance during the reporting period. However, a change to the model change policy was implemented as approved by the regulator. In particular, the thresholds for major model changes that affect small risk categories, which require regulatory approval, were lowered. Furthermore, a rule for potential error corrections was included.

B.3.1.4 Organisation of risk management and the tasks of the risk management function

An overview of the risk management`s organisational structure is provided in Section B.1.1.2 above.

The risk management function consists of three primary components: the Risk Committee, the Chief Risk Officer and the risk monitoring function.

Risk Committee

The tasks of the Risk Committee – the body charged with the monitoring and coordination of risk management – are derived from the Rules of Procedure regarding the Risk Committee. The scope of decision-making for the Risk Committee lies within the boundaries of risk appetite set by the Executive Board. Changes, and any instances of increase in risk appetite, require the approval of the Executive Board. Further tasks include quality assurance of the ORSA process and monitoring of the implementation of risk-related measures. The Risk Committee also receives the model change reports according to the model change policy.

Chief Risk Officer

The Chief Risk Officer is also the head of the risk monitoring function and member of the Risk Committee. The Chief Risk Officer coordinates the ORSA process and ensures the framework conditions of an effective risk management system.

Risk monitoring function

The risk monitoring function coordinates and bears responsibility for comprehensive monitoring (systematic identification, evaluation, monitoring and reporting) of all significant asset- and liability-related risks and the regular execution of the ORSA process. Furthermore, the risk monitoring function develops methods, standards and processes for the assessment and monitoring of risk.

The risk monitoring function fulfils its tasks objectively and independently for Hannover Rück. There has been a change in the risk management system during the reporting period in respect of creation of a Reputational and Sustainability Risk Framework, due to the rising importance of all ESG related topics and risks from them.

B.3.1.5 Key elements of our risk management system

Our risk strategy, the Risk and Capital Management Guideline and the system of limits and thresholds for material risks of Hannover Rück 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 Risk and Capital Management Guideline describes, among other things, the major tasks, rights and responsibilities, the 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 for risk management as well as international standards and developments relating to appropriate enterprise management.

Group-wide risk communication and an open risk culture are important to our risk management. Regular global meetings attended by the actuarial units and risk management functions serve as a central anchor point for strategic considerations in relation to risk communication. Beyond that, the requirements by the risk management are stated in guidelines and policies, which are communicated Group-wide.

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 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 assessed quantitatively. Only risk types for which quantitative risk measurement is currently impossible or difficult are assessed qualitatively (e.g. strategic, reputational or emerging 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 Rück risk model. The model makes allowance as far as possible for risk accumulations and concentrations.

Risk steering

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

Risk monitoring

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

Risk communication and risk culture

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

Risk reporting

Our risk reporting provides systematic and timely information about all material risks and their potential implications. The central risk reporting system consists primarily of regular risk reports, e.g. on the overall risk situation, adherence to the parameters defined in the risk strategy or on the capacity utilization of natural catastrophe scenarios. Complementary to the regular risk reporting, immediate internal reporting on material risks that emerge at short notice takes place as necessary.

Process-integrated / -independent monitoring and quality assurance

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

B.3.1.6 Risk landscape

In the context of its business operations, Hannover Rück 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 Hannover Rück, 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. 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. Crucial importance attaches to our risk management in order to ensure that, among other things, risks to the reinsurance portfolio remain calculable and also exceptional major losses do not have an unduly adverse impact on the result.

The risk landscape of Hannover Rück 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 as well as
- reputational and sustainability, liquidity, strategic and emerging risks.

Sustainability risks

Sustainability risks are risks that can arise in connection with environmental issues and social concerns or in the context of corporate governance and may be associated with negative implications

for the company's net assets, financial position or results of operations and especially its reputation. Sustainability risks are also referred to as ESG (environmental, social, governance) risks.

As a general principle, sustainability risks can affect all areas of our risk landscape. Examples include the intensification of physical risks in Property & Casualty insurance portfolios, real estate assets impacted by climate change or the decline in value of certain investments in conjunction with the changeover to lower-carbon modes of production (transitory risk). Sustainability risks are also closely associated with reputational risks.

B.3.2 Own Risk and Solvency Assessment (ORSA)

The ORSA cycle mirrors our circuit of planning, action, monitoring und finally enhancement and comprises the elements listed in Section B.3.5.

The ORSA report is prepared on an annual basis and summarizes the results of the last ORSA cycle. Here, the internal model is used – especially for the calculation of solvency requirements in comparison to the allocated risk capital. The interplay between risk and capital management is highlighted here. Finally, it explains the inclusion of the Executive Board into the ORSA process and its use as one of the controlling instruments at the company’s disposal.

The ORSA report is coordinated by the risk management division and is subject to both assessment and approval by the Executive Board. In addition, the report is submitted to the Supervisory Board and the BaFin.

Risk reporting

The risk monitoring function produces regular reports, which show the company’s risk position.

These reports form the basis for the solvency and risk assessments described in the ORSA report. Therein all employees contributing to the above procedures are involved as data and information suppliers and consulted for quality assurance.

The Executive Board takes the ORSA results into consideration when assessing the degree of accomplishment of defined business targets. If needed, changes in the business process take place. This establishes a surveillance circuit for business enhancements and risk mitigation.

In the event of a necessary ad hoc ORSA report - because of a material change in risk profile - Hannover Re has defined specific procedural plans and responsibilities. Hannover Re conducted several ad-hoc analysis in 2020 as a response to the Covid-19 crisis. The analysis included additional stress tests and sensitivities. Hannover Re did not prepare an ad-hoc ORSA report in 2020.

In addition to the internal risk reporting and the ORSA report, we generate this annual Solvency and Financial Condition Report (SFCR) and an annual Regular Supervisory Report (RSR).

B.4 Internal Control System

B.4.1 Elements of the 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 Rück's ICS are documented in a guideline that establishes a common understanding of the differentiated execution of the necessary controls.

The guideline defines concepts, stipulates responsibilities and provides a guide for the description of controls. In addition, it forms the basis for the accomplishment of internal objectives and the fulfilment of external requirements imposed on Hannover Rück. The ICS consists of systematically structured organisational and technical measures and controls within the enterprise. These include, among other things, the principle of dual control, separation of functions, documentation of the controls within processes as well as 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 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.

B.4.2 Compliance function

Compliance Management System

Hannover Rück defines Compliance as the observance of the applicable statutory and regulatory provisions and intra-company guidelines.

Hannover Rück implemented a Compliance Management System (CMS) to ensure overall Compliance. It is based on accepted international standards and consists of six elements: Compliance Culture, Compliance Function, Compliance Risk, Compliance Programme, Compliance Communication, Compliance Monitoring and Improvement.

Compliance Culture

Compliance Culture provides the basis for the adequacy and effectiveness of the CMS. The importance of Compliance is not only reflected in the Code of Conduct (CoC), it is an explicit part in the group strategy which in turn further emphasises the importance of Compliance from the management perspective (Tone from the Top).

In addition, in 2020 the Tone from the Top is further communicated during our Compliance Campaign by publishing dedicated individual Compliance videos by the members of our Executive Board and the Compliance Officer.

Compliance Function

Hannover Rück has opted for a decentralised approach towards the implementation of the Compliance function, i.e. the tasks of the Compliance function will not only be fulfilled by one department, but by various departments. The Compliance function is therefore located in several departments.

The head of the department Group Legal Services (GLS) is the holder of the key Compliance function at the same time.

The Executive Board of Hannover Rück has established the Compliance division within GLS for the fulfilment of some of the tasks of the Compliance function. The Compliance Officer is authorised to appoint further members of staff from GLS for the purpose of fulfilling compliance function tasks as necessary.

In the process of planning and organising of the CMS the particularly sensitive Compliance topics were identified through the employment of a risk-based approach and past experiences gained primarily by the Compliance and Internal Audit department (Group Auditing, GA). The scope is assessed annually. The Compliance Officer will propose an appropriate adjustment to the Executive Board if a change in assessment occurs.

The key areas of Compliance as mentioned above are monitored by the Compliance function at Hannover Rück. Therefore, different departments work together in order to fulfil this function. E.g. employment law remains the responsibility of the Human Resources department, tax law falls under the jurisdiction of the Tax department of Hannover Rück.

The handling of particularly Compliance-relevant topics by the departments, who collectively form the Compliance function, comprises at least the following activities:

- Identification and evaluation of risks, which are associated with the non-compliance of statutory requirements (risk control)
- Evaluation of the possible consequences for the company's activity as a result of changes in legal operating conditions (risk relating to changes in the law/early warning)
- Consultation with regard to compliance with the legal provisions which apply to company activity
- Assessment of the appropriateness of implemented measures in relation to compliance with statutory requirements (monitoring function)

Compliance Risk

The term compliance risk is commonly referred to as the risk of legal or regulatory sanctions due to non-compliance with laws, regulations and regulatory requirements or due to a serious financial loss or a loss of reputation.

The Compliance Risk assessment was revised in 2019. Next to the implementation of a Compliance Risk Matrix a systematic evaluation and assessment of Compliance Risks was initiated. The risk assessment is thereby the result of the combination of probability of occurrence and impact (consequence).

Compliance Programme

Every year, the Compliance Officer generates a Compliance plan for the following year. This plan determines where the key areas of Compliance activity should be in the subsequent year. The report takes into account all relevant areas of activity of the company and the Compliance Risk.

Hannover Rück has specified its compliance policy in writing in a manual bearing the title “Group Compliance Handbook”. This manual is regularly assessed for its topicality and, if necessary, updated – at least once a year – and on an event-driven basis by the members of staff within the Compliance function when new developments occur. In 2019 the Group Compliance Handbook was fundamentally revised and reflects the updated CMS structure of Hannover Rück.

The appointed Compliance Officer for Hannover Rück bears particular responsibility for the following tasks: The Compliance Officer monitors changes made to legal provisions and standards made by legislators, as well as case law. He assesses the new developments for their relevance and communicates pertinent innovations and changes to the respective departments and the Executive Board.

The Compliance Officer advises members of the Executive Board and members of staff of Hannover Rück upon request regarding Compliance topics.

Compliance Communication

Compliance Communication comprises several aspects including reporting, training and a speak-up culture.

The Compliance Officer maintains constant contact and exchange with the further members of the Compliance Function both in Germany and abroad.

As the holder of the key Compliance function, the Compliance Officer reports directly to the members of the Executive Board responsible for the Legal and Compliance Department. Reports are provided on relevant Compliance incidents and are completed in written, verbal or electronic form, although verbal reports are, as a rule, subsequently backed up in writing. Depending on the seriousness of the incident, the reporting can be performed within a regular annual report or on an ad hoc basis.

For the generation of the Hannover Rück annual Compliance Report to be presented to the Supervisory Board in its Finance & Audit Committee meeting the Compliance Officer and the Compliance staff assess the monitoring plan of the Home Office as well as the Compliance report of the Local Offices. The report contains information on all Compliance-relevant topics.

The Compliance function also holds regular training sessions for members of staff, in particular with regard to legislative reforms, announcements by the insurance supervisory authority or other changes. In 2020, Compliance started a Compliance Campaign scheduled for the duration of twelve months to raise awareness for Compliance relevant topics with all staff globally.

Compliance Monitoring and Improvement

By way of continuous monitoring, the Compliance Officer and the members of staff of the Compliance function contribute to ensuring compliance by the executive bodies (Executive Board and Supervisory Board) and the members of staff of Hannover Rück with legal and regulatory operating conditions.

Compliance annually evaluates adequacy and effectiveness of implemented measures to mitigate identified Compliance Risks. The result of this evaluation did not show any indications that single measures for prevention of non-Compliance would have failed.

B.5 Internal Audit Function

Implementation of the Internal Audit Function

The company's internal audit function is executed by the department of Group Auditing (GA). GA renders independent, objective auditing services including evaluations and recommendations, which play a key role in safeguarding the external and internal compliance of processes, the internal control system and other areas of the company, as well as identifying potential areas for improvement and thereby creating added value. In addition to its auditing role, GA operates as an internal advisor generating valuable input as part of network collaboration with other units and functions within the company.

The Executive Board ensures that GA is not subject to instruction regarding audit planning, audit execution, reporting and the assessment of audit results. For the purposes of safeguarding independence, the Head of GA, who is simultaneously the key function holder for the company's internal audit function pursuant to Sections 30 and 47 No. 1 of the Insurance Supervision Act (VAG), reports directly to the Executive Board in all matters. Members of the internal audit staff are exclusively employed in GA and only execute tasks which are in line with the GA internal audit policy ("Internal Audit Charter"). This policy was released by the Executive Board and specifies the authorities of the internal audit function.

The GA team unites people of different educational backgrounds as well as different university and vocational degrees in order to cover the wide range of audit tasks. The employees hold a comprehensive professional experience, gained internally (especially from underwriting) as well as externally (in particular from external auditing and consulting). If a specific need for additional resources or skills arises, GA can involve internal peers or external capacities.

Tasks

GA supports the Executive Board in the attainment of company targets by assessing all business areas, processes and systems within the company in a targeted, independent and objective way, through the use of a systematic, risk-oriented approach as part of audit planning and execution, while also contributing to the company's further development. Auditing results are reported directly to the Executive Board. The assessment of individual findings and the overall assessment of the audit results is undertaken exclusively by GA. The underlying classification scheme defined by GA ensures an objectification of the estimations made.

Reporting lines

The internal audit function reports its auditing results and recommendations to the Executive Board continuously in the form of written audit reports, and / or immediately in the event of serious deficiencies, as well as once a year in the form of the GA annual report. The implementation of agreed recommendations and measures in the audits is monitored by GA up until the determined deadlines.

B.6 Actuarial Function

Implementation of the Actuarial Function

The Actuarial Function (AF) is decentral organised, as the given tasks are undertaken by several organisational units. Utilisation of the expertise and processes, which are directly linked to the core tasks of the respective organisational unit, ensures adequate actuarial knowledge for all tasks of the AF.

The responsible owner of the AF coordinates all tasks related to the AF. He is assigned to the risk management department of the company, but operates objectively and independently in respect of fulfilling the requirements in undertaking the AF. In exercising his function, the responsible owner of the AF receives support from several units within the risk management department and from other departments of the company.

Furthermore, it is the common understanding of AF and Risk Management Function (RMF) that a broad exchange of information and a competent support of each other's function is useful to fulfil their individual tasks in an effective and efficient way.

With respect to an opinion on the underwriting policy, the AF is supported by those departments assigned to the risk management, which are concerned with premium risk and with the measurement of underwriting risk, respectively. For the evaluation of the retrocession and the accompanying risks, there is a close collaboration between the involved risk management departments. In addition those departments are consulted for coordinating the retrocession program of the company.

Tasks

The tasks of the AF are inter alia:

- Coordination and validation of the calculation of the Solvency II technical provisions (TP)
- Ensure the appropriateness of the applied methods, the underlying models and assumptions
  - used for the calculation of the TP for solvency as well as for accounting purposes
  - used as a basis for the appropriate recognition of the inherent risks of these methods, models and assumptions in the internal model
- Evaluation of the uncertainty associated with the estimations made in the calculation of the TP
- Regular review and assessment of the underlying data in terms of sufficiency and quality
- Regular comparison of best estimates against experience
- Reconciliation of TP between local accounting principles and Solvency II
- External validation and quality checks by actuarial consulting companies in addition to the internal validation of the TP
- Recommendations on improving processes and models used for the calculation of the TP, including data collection, if deficiencies have been observed, and monitoring of their implementation
- In the context of the contribution to the RMF inter alia
  - Support of the internal model, especially with respect to underwriting risks including the delivery and validation of models, data, parameters)
  - Monitoring of the reserve level within the scope of the system of limits and thresholds
  - Analysis of large transactions and new types of business
- Preparation of the AF report containing inter alia the following topics
  - Tasks of the AF
  - Activities of the AF in the reporting period
  - Methods, results and sensitivity analyses in respect of TP
  - Opinion on the underwriting policy, and
  - Opinion on the retrocession policy

Reporting Lines

In addition to the annual AF report, the responsible owner of the AF reports regularly directly to the Executive Board and to the Actuarial Committee, which is the responsible committee for the information exchange with the AF. If necessary, the AF reports to the Board or the Actuarial Committee on an ad hoc basis or upon requests and vice versa. Any requests of these two bodies were directed to the responsible owner of the AF. These direct reporting lines ensure the independence of the AF from the other key functions and the operational management.

The Actuarial Committee consists of the CEO, CFO, the Board member responsible for the risk management coordination of worldwide Property & Casualty reinsurance, the Board member responsible for the risk management coordination of the worldwide Life & Health reinsurance, the head of the AF and the head of reserving for Property & Casualty reinsurance business.

B.7 Outsourcing

Hannover Rück has guideline in place, which rules third party provisions and outsourcing. Among others, the guideline details all requirements imposed on the outsourcing of (re-)insurance activities and functions. Here, the entire management process is described, which consists of the following four process steps:

- Initial analysis, incl. classification and initial risk assessment and due diligence
- Initial contracting, incl. notification
- Continuous steering and monitoring
- Renewal and termination

All relevant stakeholder groups are involved in the management process. Intra-Group outsourcings are also integrated into the management process.

Among others, Hannover Re has currently outsourced the asset and investment management to Ampega Asset Management GmbH, located in Cologne (Germany). This matter concerns the only outsourcing classified as *important outsourcing* of the Group.

B.8 Any other information

B.8.1 Evaluating the appropriateness of the system of governance

On an annual basis, the Executive Board receives an opinion from the System of Governance Assessment Committee regarding the past financial year. This opinion presented by the committee dated 15 February 2021 was assessed and approved by the Executive Board.

The committee is made up of the Heads of the key functions, the Head of Human Resources and the Head of Operations Performance, and usually convenes twice a year. Guests are invited on an event-driven basis. The basis for the assessment of the system of governance includes, among other things, the annual reports submitted by the key functions.

Based on the assessment conducted by the committee, the Executive Board has reached the conclusion that the system of governance of Hannover Rück is appropriate considering the scope and complexity of its business activities and the inherent risks.

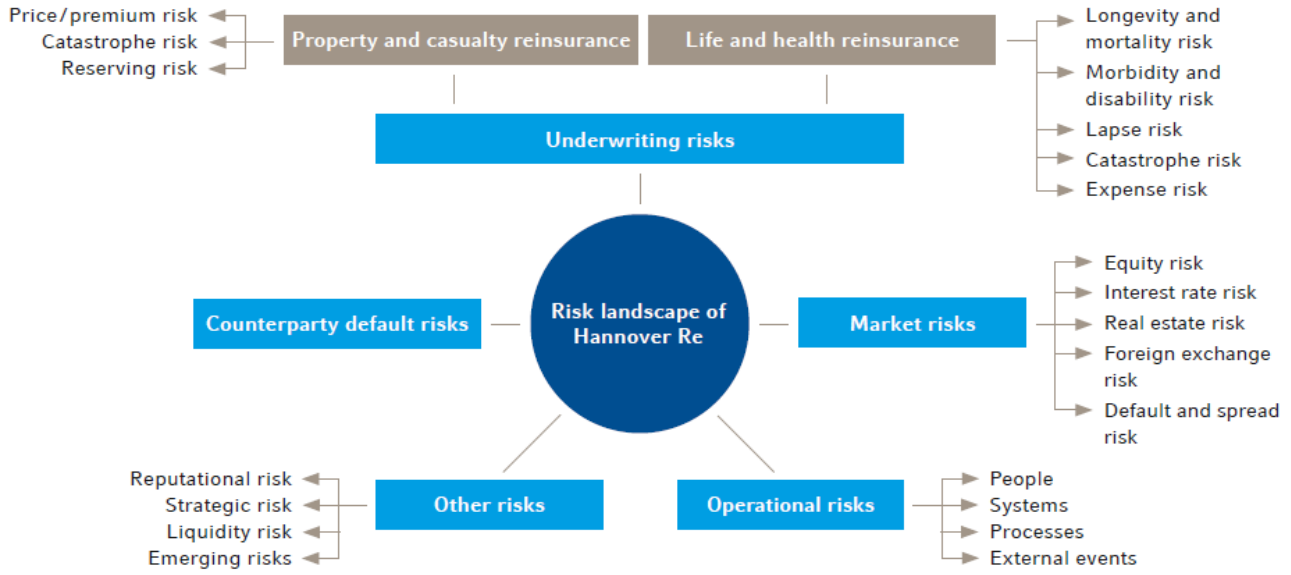
B.8.2 Other information

Other information that has a significant influence on the system of governance is not available.

C. Risk Profile

The risk landscape is presented in Section B.3.1.6 and displayed in the following graph.

Risk landscape of Hannover Re



At the present time our most significant individual risks are the default and spread risks within the market risks, the reserving and catastrophe risks within the underwriting risks of Property & Casualty reinsurance and the longevity risks within the underwriting risks of Life & Health reinsurance.Retrocession has a particular significance within risk appetite and risk reduction. It is used to protect the capital of the Hannover Re Group. The process of strategic retrocession placement for the Group, subsidiaries or branches is determined by the responsible Board member and overseen by the Executive Board.

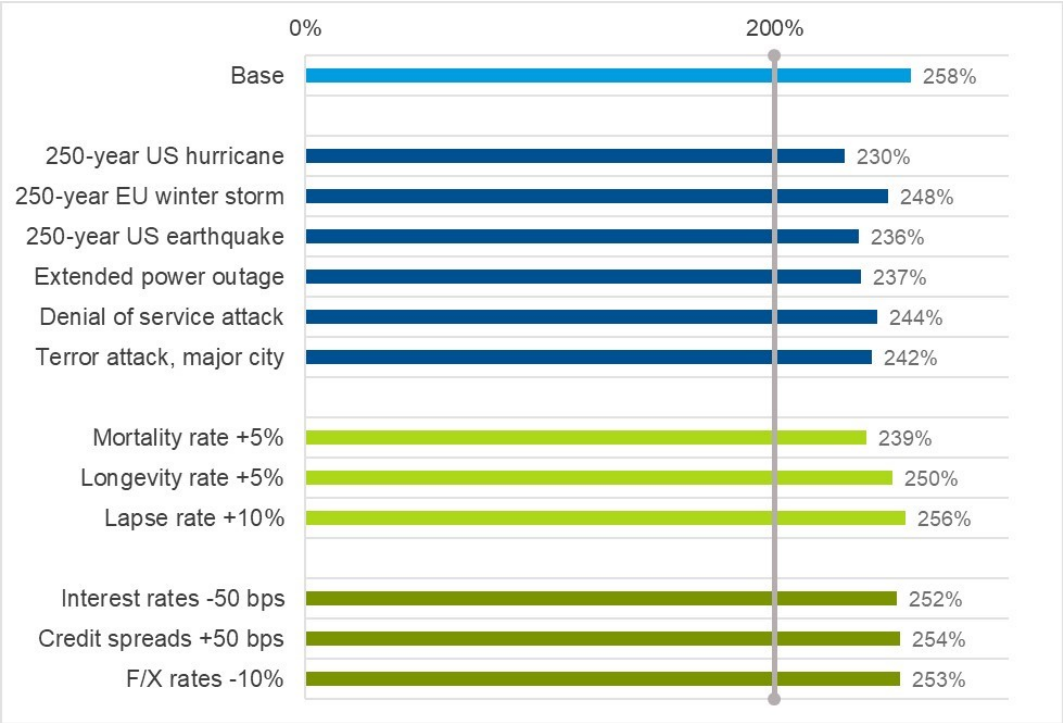
In the course of the mid-term planning, we monitor the business development over a time horizon of five years. Besides the basic scenario, we also behold alternative scenarios in respect of macroeconomic developments and evolution of (re)insurance markets. This also includes different impacts and durations of the Covid-19 pandemic. Under the assumptions within the mid-term business plan, the risk profile and the capitalisation of Hannover Re Group remains comfortable. It is worthwhile to notice that the forecast of the capital requirements is based on various assumptions for the future economic and business environment and is therefore to be handled carefully.

Large transactions are assessed with regards to their influence on the risk profile, capitalisation and the defined thresholds for different risk categories. Therewith, we ensure that the risks develop in line with our risk appetite.

New reinsurance and investment products are analysed under a dedicated process, namely the New Products Process (NPP). In addition to analysing the risk profile, integration into all internal processes, such as accounting and risk monitoring, is defined.

In addition to stochastic modelling, we perform stress tests, scenario and sensitivity analyses on a regular basis. This represents a central element of our risk management. The main stress tests and analyses have to be performed at least annually. They include analyses regarding natural catastrophes, terror events, equity and fixed-income securities as well as real estate. Selected scenarios and stress tests are presented in the following graph.

Sensitivities of the Solvency II ratio YE 2019
Values in percent



Retrocession has a particular significance within risk appetite and risk reduction. It is used to protect the capital of Hannover Rück. This ensures that Hannover Rück can benefit from any price increases following a market-changing event. The process of strategic placement for Hannover Rück, its branches and its subsidiaries is determined by the responsible Board member and overseen by the Board as a whole.

New reinsurance and investment products are analysed under a dedicated process, namely the New Products Process (NPP). In addition to analysing the risk profile, integration into all internal processes, such as accounting and risk monitoring, is defined.

Hannover Rück is the legal entity heading Hannover Re Group. It holds a number of participations, which are included into management applications in a look-through manner, i.e. based on the underlying risk and return profile. Look-through means that the underlying risks are analysed instead of purely looking at the risk of a change in the participation values as e.g. per Solvency II standard formula. This look-through perspective corresponds to a modelling approach of Hannover Rück as the entire Hannover Re Group after, i.e. excluding minorities. This means that the perception of the key risk indicators shown in the following sections (Look-through) differs from that of the exposures or volumes (no Look-through for participations) in Section D, but corresponds to the internal model view approved by the supervisory authority.

In the following, we present the current risk situation per risk category.

C.1 Underwriting risk

C.1.1 Underwriting risk Property and Casualty

Risk management in Property & Casualty reinsurance has defined various overall guidelines for efficient risk steering. These include, among other things, the use of retrocessions to reduce volatility and protect capital. Hannover Re steers the acceptance of risks systematically through the global and local underwriting guidelines. In addition, our conservative reserving approach is a key factor in our risk management.

We make a fundamental distinction between risks that result from business operations of past years (reserve risk) and those stemming from activities in the current or future years (price / premium risk). In the latter case, special importance attaches to the catastrophe risk.

Diversification within the Property & Casualty reinsurance business is actively managed through allocation of the cost of capital according to the contribution made to diversification. A high diversification effect arises out of the underwriting of business in different lines and different regions with different business partners. In addition, the active limitation of individual risks – such as natural catastrophes – enhances the diversification effect.

The risk capital with a confidence level of 99.5 % within underwriting risks in Property & Casualty reinsurance is as follows:

Solvency Capital Requirement for underwriting risks in Property & Casualty reinsurance

in TEUR	2020	2019
Premium risk (including catastrophe risk)	3,197,889	3,247,237
Reserve risk	2,448,238	2,352,537
Diversification	−1,293,528	−1,378,474
Underwriting risk property and casualty	**4,352,598**	**4,221,301**

The underwriting risks in Property & Casualty reinsurance increased during 2020 primarily because of higher premium and reserve levels. The increased volumes are the result of business growth, the large loss expenditure, especially in connection with Covid-19, and accompanying higher reserves as well as the lower interest rate level.

C.1.1.1 Risks arising from natural disasters

A large share of the required risk capital for the premium risk (including catastrophe risk) is attributable to risks from natural disasters. They constitute the main concentration risk in Property & Casualty reinsurance. The following table shows the required risk capital for five of our largest natural hazards scenarios:

Solvency Capital Requirement for five of our largest natural hazards scenarios

in TEUR	2020	2019
Hurricane US	1,967,988	1,948,096
Earthquake US West Coast	1,347,593	1,445,337
Winter storm Europe	718,836	663,239
Earthquake Japan	844,836	791,859
Earthquake Chile	907,988	883,422

The higher capital requirements compared to last year are primarily due to new and expansion of established business. In the Hurricane US scenario, strong exchange rate effects compensate this effect, and in the Earthquake US West Coast scenario, it is even overcompensated.

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

Stress tests for natural catastrophes
Effect on forecasted net income

in TEUR	2020	2019
Hurricane US		
100-year loss	−1,146,905	−1,189,771
250-year loss	−1,625,542	−1,622,460
Earthquake US West Coast		
100-year loss	−599,504	−642,200
250-year loss	−1,229,544	−1,296,104
Winter storm Europe		
100-year loss	−422,883	−396,098
250-year loss	−645,361	−580,780
Earthquake Japan		
100-year loss	−401,245	−390,626
250-year loss	−794,501	−775,303
Earthquake Chile		
100-year loss	−274,400	−261,572
250-year loss	−821,590	−825,034

For the purposes of risk limitation, maximum amounts are also stipulated for various extreme loss scenarios and return periods; the limits set take into account the profitability of the business in question. Risk management ensures adherence to these maximum amounts. The Executive Board, Risk Committee and P & C Executive Committee are kept regularly updated on the degree of capacity

utilisation. The limits and thresholds for the 200-year aggregate loss as well as the utilization thereof are set out in the following table:

Limit, threshold and utilisation for natural catastrophe risk, all perils and regions

in TEUR	Limit 2020	Threshold 2020	Actual utilisation (July 2020)
200-year annual aggregate underwriting loss	2,299,000	2,069,000	1,702,000

C.1.2 Reserve risk

The reserve risk, i.e. the risk of under-reserving losses already incurred and the resulting strain on the underwriting result, is a high priority in our risk management. We attach importance to maintaining a conservative reserving level. In order to counter the risk of under-reserving we calculate our loss reserves based on our own actuarial estimations. We establish, where necessary, additional reserves supplementary to those posted by our cedants. Liability claims form the major of these additional own reserves. Reserves are calculated on a differentiated basis according to line of business and region.

The calculation makes use of statistical run-off triangles. The triangles show the changes in the reserve for individual underwriting years. Reserve adequacy is monitored using actuarial methods.

Our own actuarial calculations regarding the adequacy of the reserves are also subject to annual external reviews.

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

C.1.3 Risk mitigation techniques Property & Casualty

C.1.3.1 Strategic aims and key figures

The strategic aims in relation to the placement of retrocessions are determined by the placing unit and the responsible member of the Executive Board. The Executive Board oversees the placement of the retrocessions as a whole, in particular the limits, premiums and contractual terms.

C.1.3.2 Description of Hannover Rück main types of cover against natural perils

In the event of a claim, Hannover Re Group shall receive relief from its various protections. Further details on the individual forms of reinsurance covers are described in the text below. The following mentioned natural protections also protect the Hannover Rück SE.

Whole Account Protection 2020

The Whole Account Protections cover all property, motor hull and engineering business of the Hannover Re Group, i.e. business recorded in Hannover and through subsidiaries or other branch offices. The protections are placed on a gross claim basis.

Large Loss Aggregate XL 2020

The Large Loss Aggregate XL is an aggregate protection and covers all Natural Catastrophe Perils for the Hannover Re Group on a net basis.

K-Quota share 2020

The K-portfolio consists of the following segments and regions of the Cat XL business of the Hannover Re Group:

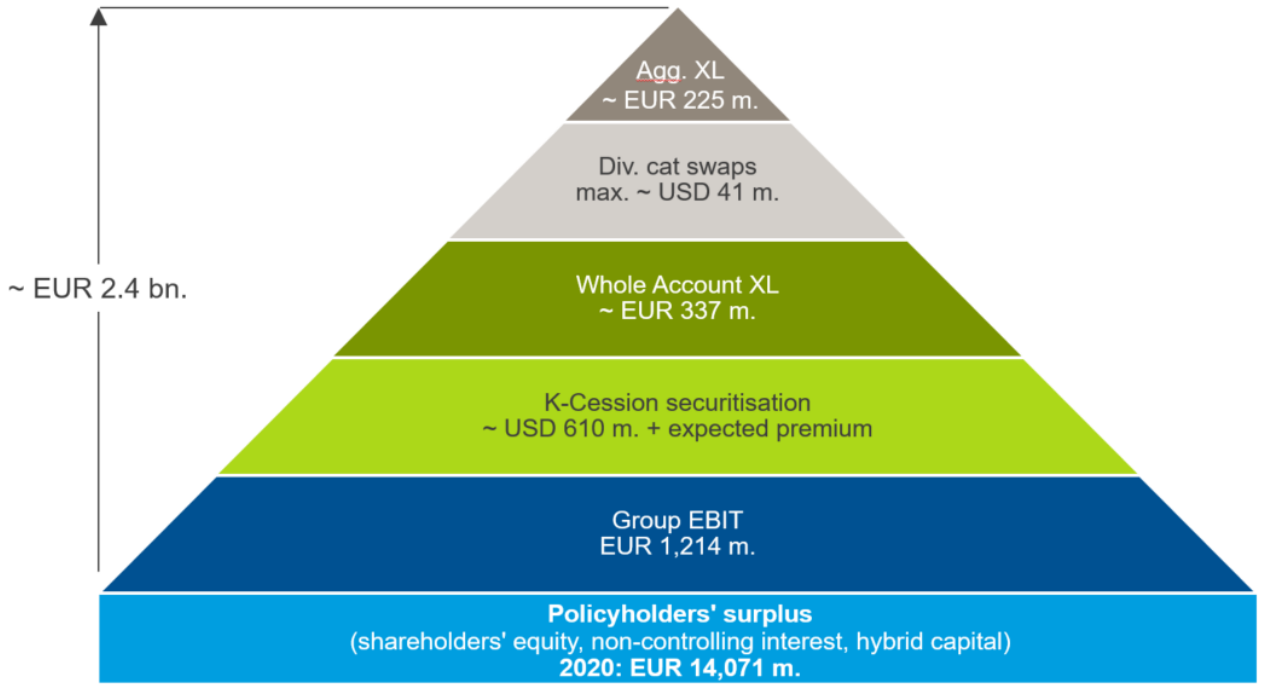
- Natural perils in Australia, Japan, Canada and USA (mainly wind and earthquakes)
- Natural perils in northern Europe (mainly wind, earthquakes, hail and floods)
- Natural perils in New Zealand, Chile (mainly earthquakes)
- Aviation (all XL contracts) and Marine & Energy (all XL contracts)

Description of the K-Transactions 2020

By way of its “K-transactions”, Hannover Rück SE has raised underwriting capacity for catastrophe risks in the capital market. The “K-Cession”, which was placed with investors in North and South America, Europe and Asia, involves a quota share cession on worldwide natural catastrophe business as well as aviation and marine risks. A large part of the total volume of the K-Cession was securitised via structured entities. The transaction has an indefinite term and can be cancelled annually by investors. Segregated accounts of Kaith Re Ltd. and other structured entities outside the Group are used for transformer purposes for part of this transaction. The structured entities are fully funded by contractually defined investments in the form of cash and equivalent liquid assets.

C.1.3.3 Multilevel protection - an overview

The multilevel protection consisting of the types of cover listed above increases the reinsurance capacity for natural catastrophes and thus provides additional revenues with a defined risk appetite.



As at March 2021

C.1.3.4 Process of retrocession placement

The Executive Board derives the risk budget for natural perils from the global risk budget. It forms the starting point for the system of limits and thresholds. The utilisation of the limits is controlled using a traffic light system. Many risk tolerances are based on net income, i.e. the placement of retrocessions plays a key role in adhering to the limits.

During the planning phase in September and October every year, the Executive Board decides on the capacities for the following year. The planning process includes an assessment of the utilisation of all risk tolerances. An overutilization would be inconsistent with the risk appetite and an underutilisation would result in under-deployment of allocated capital. The yellow area between the threshold and limit acts as a buffer for changes in planning over the course of the year, currency developments and model changes.

C.1.4 Underwriting risk Life and Health

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 & Health reinsurance. Our goal is to strike a balance between biometric risks. Furthermore, we are exposed to lapse risks because the cash flows resulting from our reinsurance treaties are in part dependent on lapse rates among policyholders. Counterparty default risks are also material since we partly prefinance our cedants' new business acquisition costs. Furthermore, we are exposed to catastrophe risks, especially events involving a high number of fatalities in our insured portfolio such as the Covid-19 pandemic in 2020.

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 & Health reinsurance is dominated by mortality and longevity risks. This is due to the fact that under some of our contracts we pay death benefits, while under others we pay survival benefits. The volume of our annuity portfolio contributes to diversification within Life & Health reinsurance. We calculate the diversification effect between mortality and longevity risks prudently in view of the fact that the contracts are normally taken out for different regions, age groups and individuals. The required risk capital with a confidence level of 99.5% for underwriting risks in Life and Health reinsurance breaks down as follows:

Required risk capital for underwriting risks life and health reinsurance
Required risk capital at a confidence level of 99.5%

in TEUR	2020	2019
Mortality risk (incl. catastrophe risk)	2,175,650	2,306,698
Longevity risk	2,299,972	1,660,140
Morbidity and disability risk	1,487,725	1,105,725
Lapse risk	396,015	386,286
Expense risk	222,008	190,846
Diversification	−3,441,452	−2,916,706
Underwriting risk life and health	**3,139,919**	**2,732,988**

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.

The underwriting risks in Life & Health reinsurance increased primarily as a consequence of the business expansion in the area of longevity and morbidity risks as well as lower interest rates.

A risk concentration in Life & Health reinsurance business arises from mortality and longevity risks, followed by morbidity risks. Concerning mortality risks, the risk of a pandemic event represents a main driver for our solvency capital requirement for Life & Health business with regard to concentration risks. To govern our risks we regularly monitor our exposure regarding potential pandemic events in the context of internal model runs. A systematic validation of the internal model with regard to the findings from the Covid-19 pandemic is planned for 2021 and if applicable 2022. More information is available in Section D.2.2.3.

Through our quality assurance measures we ensure that the reserves established by ceding companies in accordance with local accounting principles satisfy all requirements with respect to the calculation methods used and assumptions made (e. g. use of mortality and morbidity tables, assumptions regarding the lapse rate). In addition, the assumptions are continuously reviewed on the basis of empirical data and modified if necessary. New business is written in all regions in compliance with underwriting guidelines applicable worldwide, which set out detailed rules governing the type, quality, level and origin of risks and how these considerations are factored into the pricing. These global guidelines are revised annually and approved by the Executive Board. Special underwriting guidelines give due consideration to the particular features of individual markets. By monitoring compliance with these underwriting guidelines we minimise the risk of an inability to pay or of deterioration in the financial status of cedants. Regular reviews and holistic analyses (e. g. with an eye to lapse risks) are carried out with respect to new business activities and the assumption of international portfolios.

Large transactions are also examined by our risk management department. Individual actuarial reports and documentation ensure that regular scrutiny also takes place on the level of the subsidiaries. The interest rate risk, which in the primary sector is important in life business owing to the guarantees that are given, is of only minimal relevance to our company thanks to the design of our reinsurance treaties. We have confidence in the entrepreneurial abilities of our underwriters and grant them the most extensive possible powers. In our decentralised organisation we manage risks where they arise using a consistent Group-wide approach in order to obtain an overall view of the risks in life and health reinsurance. Our global underwriting guidelines provide underwriters with an appropriate framework for this purpose.

C.1.4.1 Risk mitigation techniques Life & Health Reinsurance

In the Life & Health business group, retrocessions for the purposes of risk reduction are only used on an extremely limited basis.

An index-based pandemic cover was structured in 2013 as a swap and, since then, has been placed with different investors in various tranches. The overall capacity placed is flexibly collateralised, such that the level of collateralisation can be increased depending on the current WHO pandemic alert phases. Life & Health business group did not receive any payment for this cover in 2020.

Some large longevity deals are retroceded proportionally and on regular premiums basis, in order to reduce the volatility of the longevity portfolio with regards to particular large contracts. Two sided collateral provisions ensure future liabilities are collateralized if receivables from or to the retrocessionaires resulting from expected business development are projected to exceed an agreed threshold.

The existing pool retrocessions for high sum assured individual policies mainly originate from times when a lower retention per life applied for Hannover Re Group. For risk reduction reasons, they are no longer necessary and have been placed in run off.

Some non-European branches use inter-company retrocessions for capital relief reasons under local regulatory capital requirements.

All other existing retrocessions are not placed for reasons of active risk reduction, but rather to maintain existing customer relationships and gain access to attractive inward business or are placed with affiliates and non-affiliates in order to reduce the HGB strain from large financing transactions.

The effectiveness of the retrocessions is closely linked to the default risk of the retrocessionaires. The monitoring of the default risk of retrocessionaires is performed across all business segments of Hannover Rück in a standardized way, using standard systems and methods which are described in Section C.3.

C.2 Market risk

Faced with a challenging capital market climate, particularly high importance attaches to preserving the value of assets under own management and the stability of the return. Hannover Re’s portfolio is therefore guided by the principles of a balanced risk / return profile and broad diversification. Based on a risk-averse asset mix, the investments reflect both the currencies and durations of our liabilities. Market price risks include equity risks, interest rate risks, foreign exchange risks, real estate risks, spread and default risks. Our portfolio currently consists in large part of fixed-income securities, and hence default and spread risks account for the bulk of the market risk. We minimise interest rate and

foreign exchange risks through the matching of payments from fixed-income securities with the projected future payment obligations from our insurance contracts. Market risks derive from the investments managed by Hannover Re itself and from investment risks of ceding companies that we assume in connection with insurance contracts. The following table shows the risk capital with a confidence level of 99.5 % for the market risks from investments under own and third-party management.

Required risk capital for market risks
Including Private Equity

in TEUR	2020	2019
Credit and spread risk	2,767,399	2,669,720
Interest rate risk	722,368	918,578
Foreign exchange risk	1,038,209	1,385,751
Equity risk	1,495,420	1,078,856
Real estate risk	595,688	608,982
Diversification	−2,475,847	−2,718,839
Market risk	**4,143,238**	**3,943,049**

The increase in the market risk during the year 2020 is a reflection first and foremost of the higher volume in the private equity sector, although of a higher equity allocation. Further factors are the increased spread volatility seen during the year, as well as the larger volumes of fixed-income securities on account of falling interest rates.

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. They are defined in conformity with our risk appetite. The definition includes triggers for specified information and escalation channels if a corresponding fair value development is overstepped.

Interest rate markets were highly volatile over the course of the year under review. The already very low level of the previous year was once again pushed significantly lower in all our main currency areas. While the US dollar area recorded particularly appreciable interest rate declines, pound sterling and euro interest rates also saw sharp decreases. Risk premiums on corporate bonds recorded and the highest levels of volatility measured to date in virtually all rating categories in the first half of the year, but had very largely normalised again by year-end. Overall, a very substantial increase in the hidden reserves for fixed-income securities was booked over the year as a whole.

The predefined discussion and analysis mechanisms upon triggering of the escalation levels of the early-warning system were activated in the spring of 2020. The Investment Committee as well as various other bodies each reached the assessment that a more defensive investment strategy should be adopted for our portfolio in response to the corresponding market movements and impacts on capitalisation. For this reason, we implemented more defensive postures in our asset allocation as a temporary move during the reporting period on account of our early-warning system.

The short-term loss probability measured as the Value at Risk (VaR) is another vital tool used for operational monitoring and management of the market price risks associated with our securities positions. 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 securities portfolio is simulated with a certain probability and within a certain period. The VaR of the Hannover Re 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 standard market model is used to calculate the VaR indicators for the Hannover Re. It is based on historical time series of relevant market parameters (equity prices, yield curves, spread curves and exchange rates). Against the backdrop of a very turbulent capital market and interest rate environment, volatilities – especially of fixed-income assets – again reached a high level at times in the year under review. Based on continued broad risk diversification and the orientation of our investment portfolio, our VaR was nevertheless clearly below the VaR upper limit defined in our investment guidelines. It amounted to 0.8 % (previous year: 0.8 %) as at the end of the reporting period.

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

		Portfolio change on a fair value basis	
in TEUR	Scenario	2020	2019
Equity securities and private equity	Share prices -10%	-27.481	-1.570
	Share prices -20%	-54.963	-3.141
	Share prices +10%	27.481	1.570
	Share prices +20%	54.963	3.141
Fixed-income securities	Yield increase +50 basis points	-562.738	-541.567
	Yield increase +100 basis points	-1.098.861	-1.055.917
	Yield decrease -50 basis points	589.354	568.785
	Yield decrease -100 basis points	1.205.324	1.164.788
Real Estate	Real estate market values -10%	-5.371	-5.300
	Real estate market values +10%	5.371	5.300

Further 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. The issued subordinated bonds and resulting induced interest rate exposure are actively factored into our ALM. Please note, that also the subordinated liabilities considered in Section D.5 and the resulting interest rate risk are actively managed in the ALM process.

Equity risks derive from the possibility of unfavourable changes in the value of equities, equity derivatives or equity index derivatives in our portfolio. We acted on the price corrections at the beginning of the year under review to make share purchases and increased our equity allocation. In the private equity market, changes in fair value tend to be prompted less by general market conditions and more by entity-specific assessments. The risks are associated principally with the business model and profitability and less so with the interest rate component in the consideration of cash flow forecasts.

By far the largest part of our assets under own management is invested in fixed-income securities. They are 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. We minimise interest rate risks by matching the durations of payments from fixed-income securities as closely as possible with the projected future payment obligations under our insurance contracts.

Foreign exchange risks are especially relevant if there is a currency imbalance between the technical liabilities and the assets. Through extensive matching of currency distributions on the assets and liabilities side, we reduce this risk on the basis of the individual balance sheets within the Group. The short-term Value at Risk therefore does not include quantification of the foreign exchange risks. We regularly compare the liabilities per currency with the covering assets and optimise the currency coverage by regrouping assets. In so doing, we make allowance for collateral conditions such as different accounting requirements. Remaining currency surpluses are systematically quantified and monitored within the scope of economic modelling.

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 worldwide; each investment is preceded by detailed analyses of the property, manager and market concerned.

The Covid-19 pandemic also has implications for real estate markets. Against a backdrop of travel restrictions and business closures, the hardest hit areas have been the restaurant, hotel and retail industries, and to some extent the office sector. In our real estate portfolio,,,,, we are seeing concrete impacts on directly held properties, above all in the retail sector and especially in relation to lessees in the restaurant industry. Overall, though, an increase in the vacancy rate was not observed in this connection. Hannover Re is not directly invested in the hotel sector. Exposures are solely through diversified funds and account for a small share of the total real estate portfolio.

The realities and dynamics of real estate markets are indirectly subject to another influencing factor as a consequence of the pandemic. If the economic softness (temporarily) reduces demand for space, this could result in flat or even declining rental price trends or indeed a rising vacancy rate. In combination with modified expectations as regards contract conditions and the likelihood of lease extensions or new leases, these changes in parameters will be reflected in adjusted fair values of the properties. Pandemic-related developments have therefore been factored into the real estate valuations. This applies to both the directly held portfolio and – with the usual slight time delay – the portfolio of real estate funds.

We use derivative financial instruments only to the extent needed to hedge risks. The primary purpose of such financial instruments is to hedge against potentially adverse developments on capital markets. A portion of our cash flows from the insurance business as well as foreign exchange risks arising because currency matching cannot be efficiently achieved is hedged to some extent 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 holds 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 transactions. The remaining exposures are controlled according to the restrictive parameters set out in our investment guidelines.

Since 2019 we have entered into term repurchase agreements as a supplementary liquidity management tool. The holdings exchanged in this context are fully collateralised.

Derivatives connected with the technical account play a minor role in Hannover Re's portfolio.

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.

In general terms, Hannover Re gears its investment portfolio to the principles of a balanced risk / return ratio coupled with broad diversification. Accordingly, we counter the risk concentrations that nevertheless arise in individual asset classes with the broadest possible spread of different issuers per asset class. This is just as much a key component of our investment policy as credit rating assessment and management based on the quality criteria defined in the investment guidelines.

C.3 Credit risk

The credit risk or counterparty default risk consists primarily of the risk of complete or partial failure of the counterparty and the associated default on payment. The following table shows the required risk capital for counterparty defaults as at 31 December.

Required risk capital (confidence level 99.5%)

in TEUR	2020	2019
Counterparty default risk	445,380	419,990

The increase in counterparty default risks can be attributed to a higher volume of receivables due from ceding companies.

Our retrocession partners are carefully selected and monitored. This is also true for our broker relationships, which entail a risk inter alia through the potential loss of the premium paid by the cedant to the broker. We minimise these risks, among other things, by reviewing all broker relationships once a year with an eye to criteria such as the existence of professional indemnity insurance, payment performance and proper contract implementation. The credit status of retrocessionaires is continuously monitored. On the basis of this ongoing monitoring a Security Committee decides on measures where necessary to secure receivables that appear to be at risk of default. This process is supported by a Web-based risk management application, which specifies cession limits for the individual retrocessionaires participating in protection cover programmes and determines the capacities still available for short-, medium- and long-term business. Depending on the type and expected run-off duration of the reinsured business, the selection of reinsurers takes into account not only the minimum ratings

of the external rating agencies but also internal and external expert assessments (e.g. market information from brokers). Overall, retrocessions conserve our capital, stabilise and optimise our results and enable us to act on opportunities across a broader front, e.g. following a major loss event. Regular visits to our retrocessionaires give us a reliable overview of the market and put us in a position to respond quickly to capacity changes. The following table shows how the proportion of assumed risks that we do not retrocede (i.e. that we run in our retention) has changed in recent years:

Gross written premium retained

in %	2020	2019
Total	68.3	69.7
Property and casualty reinsurance	65.3	66.9
Life and health reinsurance	75.1	76.3

Alongside traditional retrocessions in Property & Casualty reinsurance we also transfer risks to the capital market. Please refer also to Section C.1.3.

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

Lastly, short-term deposits at banks are also at risk of counterparty default.

As the parent company, Hannover Re provides a guarantee to clients for the small number of low-risk structured transactions. In this context, it guarantees the payment of liabilities by Hannover Re under these specific transactions in the event that the subsidiary is unable to meet its assumed obligations. Since each of these guarantees is associated with a specific transaction and formulated in such a way that each potential payment can only arise once per corporate entity of Hannover Re (i.e. either at the subsidiary itself as part of the transaction or at Hannover Re as a consequence of the guarantee), the existence of the guarantee on the part of Hannover Re has no effect on the underwriting risk from Hannover Re's Property & Casualty or Life & Health reinsurance business.

C.4 Liquidity risk

The liquidity risk refers to the risk of being unable to meet our financial obligations when they become due. The liquidity risk consists of the refinancing risk (necessary cash could not be obtained or could only be obtained at increased costs) and the market liquidity risk (financial market transactions could only be completed at a lower 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. Above and beyond the foreseeable payments, unexpected and exceptionally large payments may pose a threat to liquidity. In reinsurance business, however, significant events (major losses) are normally paid out after a lead time that can be reliably planned. As part of our liquidity management we have nevertheless defined asset holdings that have proven to be highly liquid – even in times of financial stress such as the 2008 financial crisis. Our holdings of unrestricted German, UK and US government bonds as well as cash during the year under review were larger than possible disbursements for assumed extreme events, which means that our liquidity is assured even in the unlikely case of financial crises coinciding with an extreme

event that needs to be paid out quickly. In addition, we manage the liquidity of the portfolio by checking on each trading day the liquidity of the instruments contained therein. These measures serve to effectively reduce the liquidity risk.

Regarding the “total amount of the expected profit included in future premiums” required by Art. 295 (5) of the Delegated Regulation 2015/35 please refer to the Quantitative Reporting Template S.23.01.22, item R0790. We do not use this quantity for our liquidity management.

C.5 Operational risk

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. Within the overall framework of operational risks, we pay particularly close attention to business process and data quality risks, compliance risks, outsourcing risks, fraud risks, personnel risks, information security risks and business interruption risks.

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 minimisation. With the aid of half-yearly Group-wide self-assessments, in which all relevant corporate operations are actively involved, we determine the maturity level of our risk management system for operational risks and define action fields for improvements. The assessment is carried out by evaluating the maturity level of the corporate governance, the risk management function and the respective risk identification, analysis, assessment, steering, monitoring and reporting. The evaluation of the maturity level enables us, among other things, to prioritise operational risks. In order to calculate the capital commitment in our internal capital model we perform extensive scenario analyses using the same tool and take the findings as a basis for specifying the parameters for the stochastic model. In this context, experts across all disciplines establish assumptions for the loss frequency and losses in joint workshops. In addition, internal loss events and near-losses are systematically recorded and examined with an eye to possible measures for improving the control system. The internal data are enhanced with insights gained from external events. External data is received via public channels and via a non-public loss data consortium.

Regular quarterly risk reporting to the Risk Committee and the Executive Board takes place with regard to all operational risks. In the context of the reporting, risks are also evaluated on the basis of the respective key risk indicators.

The following table shows the required risk capital for operational risk as at 31 December.

Required risk capital (confidence level 99.5%)

in TEUR	2020	2019
Operational risk	529,608	520,355

The increase in operational risks can be attributed above all to an updated expert assessment regarding the impact of individual scenarios.

Unlike market, counterparty default and underwriting risks, operational risks are categorised as non-financial risks. We discuss below the subcategories of operational risks. Risks connected with ESG issues can occur in particular in the subcategories of compliance, outsourcing, personnel, information security and business interruption.

Business process risks are associated with the risk of deficient or flawed internal processes, which can arise inter alia as a consequence of an inadequate process organisation. We have defined criteria for managing the risk that result in a high process quality. Data quality is similarly a very critical success factor, especially in risk management, because for example the validity of the internal model is largely based on the data provided.

Compliance risks are associated with the risk of breaches of standards and requirements, non-compliance with which may entail lawsuits or official proceedings with not inconsiderable detrimental implications for the business activities of Hannover Rück. Compliance with regulatory standards, the company's Code of Conduct, tax regulations, data privacy requirements as well as the stipulations of anti-trust and competition law have been defined as issues of particular relevance. In conformity with a risk-based approach, sanctions screening software is used on the relevant parts of the Hannover Rück´s portfolio as well as on loss advices to filter out individuals who are subject to sanctions. Suitable steps are taken if such individuals are identified. Business partners are also screened in this way. Responsibilities within the compliance organisation are regulated and documented Group-wide and interfaces with risk management have been put in place. The set of tools is rounded off with regular compliance training programmes.

Outsourcing risks can result from the outsourcing of functions, services and / or organisational units to third parties. They also include internal outsourcing activities within the Group. Mandatory rules have been put in place to limit this risk; among other things, they stipulate that a risk analysis and partner assessment (due diligence check) are to be performed prior to outsourcing. In the context of these analyses a check is carried out to determine, inter alia, what specific risks are associated with the outsourcing, whether the outsourcing can even occur in the first place and what risk management measures would need to be taken. The results of the analyses are subject to regular review.

The proper functioning and competitiveness of Hannover Rück 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. These measures are supported by ongoing talent management and regular employee surveys. Hannover Rück has at its disposal key risk indicators for the early detection and monitoring of material risks. Along with a determination of the weighted level of maturity according to the methodology used for the Self-Assessment for Operational Risks (SAOR), this also encompasses continuous succession planning, ensuring the timely (re)staffing of vacant positions and monitoring turnover rates based on industry benchmarks.

Fraud risks refer to the risk of intentional violations of laws or regulations by members of staff and / or by externals in order to obtain a personal gain for themselves or third parties. 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. Should an instance of fraud nevertheless occur, established escalation processes to involve all relevant functions are in place and a risk-specific analysis (e.g. forensic investigation) is conducted including determination of appropriate measures.

Information security risks arise, inter alia, out of the risk of inadequate integrity, confidentiality or availability of information as well as impacts from or on other assets such as systems, processes, buildings / premises or persons. Security is the main component of the information risk, among others defined in the Supervisory Requirements for IT in Insurance Undertakings (VAIT). By way of example, losses and damage resulting from the unauthorized passing on of confidential information, the malicious overloading of important IT systems or from computer viruses are material to the Hannover Rück. With a view to protecting against these risks, Hannover Re has implemented an Information Security Management System (ISMS) that is closely aligned with international standards – principally ISO 27001 – and harmonised with other management systems such as data protection or IT risk

management. The Executive Board bears overall responsibility for information security. The Information Risk & Security Committee (IRSC) evaluates and monitors the relevant risks and manages any conflicts of interest in relation to information and IT security. The Chief Information Security Officer (CISO), as the main process owner, is responsible for the planning, implementation and ongoing development of the ISMS as well as for coordinating the corresponding tasks within the Hannover Re Group. He is supported by local contacts. Given the broad spectrum of such risks, a diverse range of steering and monitoring measures and organisational standards, including for example the requirement to conclude confidentiality agreements with service providers, have been put in place. In addition, our employees are made more conscious of such security risks through practically oriented tools provided online in the intranet, by way of training opportunities and through targeted information to raise awareness.

The primary goal of our Business Continuity Management (BCM) is, firstly, to minimise the probability of occurrence of business interruption risks through preventive measures and, secondly, to mitigate the impacts through reactive measures as part of crisis management, e.g. by actioning prepared contingency plans. This includes, among other things, the possibility of falling back on alternative data centres and working on a mobile basis from any desired workstation. Guided by internationally accepted standards, we have defined the key framework conditions and set up location-specific crisis teams and a Crisis Management Board with Group-wide responsibility; in the event of an emergency, they are able to serve as temporary steering committees. In view of the worldwide repercussions of the current Covid-19 pandemic, the aforementioned Crisis Management Board is currently coordinating the Covid-19 measures implemented across the Group with the involvement of the Chief Executive Officer. Overall, our focus in BCM is on the following five scenarios: non-availability / shortages of personnel, loss of the workplace environment, failure of local / central IT, failure of external infrastructures / service providers and security incidents (life and limb of employees at risk).

The system is complemented by regular exercises and tests. By way of example, mention may be made here of crisis team simulations, teleworking reviews, system recovery tests and alert exercises. A leaflet is also available covering how to behave in the event of a business interruption; this condenses in compact form the key information that all employees need to know, such as the information channels to use in a crisis situation.

C.6 Other material risks

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

Furthermore we monitor the contagion risk of Hannover Rück being part of the Hannover Re Group and therefore of the HDI Group.

C.6.1 Emerging 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 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). Examples of emerging risks include cyber risks, pandemics, resource scarcity and supply chain risks. We monitor 20 emerging risks closely with in-depth analyses. Furthermore the working group creates internal position papers and compact risk briefings, which advise staff on handling analysed emerging risks. These analyses were made up, beside many others, for topics like urbanization and different health issues as side effect from climate change, drug abuse, pollution, nanotech, resource scarcity and obesity. Emerging risks may entail business opportunities, which are derived from our emerging risk approach.

C.6.2 Strategic risks

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

C.6.3 Reputational and sustainability risks

Our overall risk definition is as follows: The risk that adverse publicity regarding an insurer’s business practices and associations, whether accurate or not, will cause a loss of confidence in the integrity of the institution. Reputational risk could arise from other risks inherent in an organisation’s activities. The risk of loss of confidence relates to stakeholders, which includes, inter alia, employees, existing and potential customers, investors, media, suppliers, and supervisors. Reputational risk can arise in absence of financial losses and/or as a consequence thereof. ESG risks and reputational risks are closely linked. Reputational risks can arise from all circumstances where a company does not comply either with applicable laws or with expectations of various stakeholder groups. The latter may be difficult to detect since different stakeholder groups are likely to have different expectations towards ethical behaviour, different objectives and different cultural backgrounds. Reputational risks may lead to a severe damage of our image (short-term view of stakeholder´s opinion about Hannover Rück) or our reputation (long-term view of stakeholder´s opinion about Hannover Rück). In this respect, the management of reputational risks and the management of all other risks is crucial in supporting Hannover Rück’s reputational management.

Reputational damage can arise from all business activities, i.e. if the public gets aware of losses or risks not managed well. Nevertheless, there are some issues prone to result in direct reputational damage. Examples would be any (assumed) breach of the law/regulations, involvement in corruption or dishonest corporate governance practises. Likewise, a number of issues are commonly understood to be of high reputational risk in the field of ESG; commonly focussing on inside-out impacts of business actions on environmental, social or governance matters.

Sustainability or ESG risks are considered as environmental, social or governance events or conditions, which could create financial or reputational losses. This encompasses physical and transition risks as well as liability risks in relation to climate change.

C.6.4 Important developments

In this section, we describe external developments in 2020 with particular relevance for risk management.

C.6.4.1 Covid-19 pandemic

Hannover Rück classified the Covid-19 pandemic as a global crisis for the purposes of business continuity management in early 2020 and initiated the measures defined in the guidelines on Business Continuity Management. These steps include, among other things, the setting up of a crisis management team. In the course of the year, the Crisis Management Team took various decisions to maintain regular business operations, including in response to official measures. They encompass an extensive reduction in travel, a broad changeover to teleworking and the use of videoconferences. The measures taken were successful and we have not so far identified any material impacts of the Covid-19 pandemic on our operations. The pandemic brought a surge in volatility on financial markets, which in some respects proved to be temporary. Our asset/liability management including the use of the volatility adjustment protects Hannover Rück's financial strength against such changes in volatility. Despite the strains associated with the Covid-19 pandemic and the extraordinary volatility on the capital market, we were thus able to secure a robust capital base, with solvency ratios comfortably above our limit of 180% and threshold of 200%. This was achieved even against the backdrop of the incurred and anticipated insured losses. Given that the pandemic is still ongoing, any forecasts remain subject to considerable uncertainty. We continue to evaluate our financial strength and profitability on a regular basis using stress tests and sensitivity analyses and will take measures as needed to reduce risks or strengthen our equity resources.

C.6.4.2 Regulatory developments

The European Commission had originally requested the European Insurance and Occupational Pensions Authority (EIOPA) to present its technical recommendations for the review of Solvency II by 30 June 2020. Owing to the Covid-19 pandemic, this date was pushed back to the end of December 2020 so as to additionally factor any insights gained from the present crisis into a potential adjustment of Solvency II. In this context, EIOPA conducted two impact assessments at different reference dates with respect to the envisaged recommendations and has now passed on its proposals to the European Commission. Parallel to the regulatory developments in Europe, we are seeing adjustments worldwide to the regulation of (re)insurance undertakings. The Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame), which was adopted in 2019 by the International Association of Insurance Supervisors (IAIS), establishes supervisory standards and provides guidance focusing on the effective group-wide supervision of Internationally Active Insurance Groups (IAIGs). The Insurance Capital Standard (ICS) would be the first global, risk-based capital standard for IAIGs. It has been undergoing testing in a monitoring phase since 2020. Hannover Rück has participated through the Group's ultimate parent company, HDI V.a.G. In view of ongoing international negotiations around the ICS, considerable uncertainty remains in relation to the scope and date of possible implementation. Significant implications continue to be evident in connection with

the action plan for financing sustainable growth unveiled by the European Commission in 2018. The EU action plan is intended to increasingly reorient capital flows towards sustainable investments, mitigate the impacts of climate change as well as social and environmental concerns on the financial system and foster transparency and long-termism. The focus is initially on the environment. Climate change is similarly at the heart of the European Green Deal presented in 2020, which aims to make Europe the first climate-neutral continent by 2050. The two measures complement one another. In 2020 consultations were also completed on the revised EU sustainable finance strategy, which is intended to outline the future road map for implementation of all measures. Back in 2018, the European Commission had put forward three legislative proposals – along with a number of measures – in order to set the action plan in motion: the creation of a consistent classification system for sustainable economic activities, the expansion of sustainability-related disclosures in the financial services sector (disclosure regulation: EU 2019/2088, currently development of regulatory technical standards) as well as the establishment of benchmarks for low-carbon investments. In addition, the EU published several delegated acts and further measures such as the development of an EU Green Bond Standard, the launch of an EU Ecolabel for sustainable financial products as well as an overhaul of the requirements for non-financial reporting and their expansion to include non-binding guidelines geared to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). The measures outlined were again accompanied by numerous consultations and recommendations in the year under review. The disclosure regulation will apply from March 2021 onwards; reporting on the first two aspects – namely the taxonomy and climate change adaptation and mitigation – is to be provided for the first time in 2022 for the 2021 financial year. The European Commission's proposed Digital Operational Resilience Act (DORA) defines consistent detailed requirements for financial undertakings in the areas of information and communication technology (ICT) risk management, ICT-related incident reporting, digital operational resilience tests and management of ICT third-party risks. Many requirements of the proposed DORA legislation are covered by EIOPA's ICT guidelines, which European insurers had to implement by July 2021. The harmonisation and consistency of the two initiatives will therefore be crucial.

C.6.4.3 Risks from the processing of electronic data

Recent years have seen the increasing emergence of risks relating to electronic data and systems. Hannover Rück, in common with other companies, is at risk of outside attacks on its own IT systems and has put in place extensive safeguards. Furthermore, Hannover Rück offers reinsurance coverage for risks connected with electronic systems and data. The dynamic pace of developments in the context of digitalisation presents a particular challenge for the assessment of such risks. The mapping of cyber risks in the internal capital model was already improved in 2019, with the result that more detailed risk management is now possible and our cyber portfolio is included with regard to the so-called "silent cyber" exposure, insofar as the relevant portfolios have already been analysed. In general, some of the treaty wordings used in the 2020 / 2021 renewals with respect to silent cyber were revised.

C.6.4.4 Natural catastrophe risks and climate change

It is likely that the increased storm activity, heatwaves and droughts, severe precipitation events and floods of recent years can be attributed in part to progressive global warming. Hannover Rück cooperates with partners to very closely monitor the implications of global warming for extreme weather events so as to be able to factor the insights gained into the models and the management of risks. In 2020 Hannover Rück was again impacted by natural catastrophe events such as hurricane "Laura"

and other events in various parts of the world (above all the United States, Asia, Australia). Particularly noteworthy in the year under review were the large-scale forest fires and bushfires in Australia, California (on multiple occasions) and Siberia. In internal studies Hannover Rück has explored the effect of climate changes on fire risks, primarily in regions with material insured portfolios (United States, Australia), and reached the conclusion that the potential exposure is continuing to grow.

C.6.4.5 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 – again affected both euro-denominated bonds as well as the US dollar and sterling markets over the course of the year. Negative yields are being seen on euro area government bonds extending well beyond the 10-year maturity point. The economic impacts of the Covid-19 pandemic, first and foremost, as well as the uncertain signals that have been coming from policy makers for quite some time and indications of softening fundamentals led to very considerable volatility overall on the markets, especially in the first half of the year. This was also reflected in choppy prices for gold and oil. The surprisingly disorderly process surrounding the United Kingdom's withdrawal from the European Union – despite what was already a lengthy period of acclimatisation – also failed to offer any support over the course of the year. The implications of the negotiated solution that was nevertheless reached at the last minute remain to be seen. The US economy proved somewhat more robust than its European counterpart in the face of the protracted coronavirus crisis, while Asia saw a rather rapid return to the previous growth track. This can be attributed not least to the heavy intervention by the Federal Reserve, which responded in March with further substantial cuts on the heels of the expansionary interest rate policy already embarked on in the previous year. The European Central Bank launched an extensive asset purchase programme for government and corporate bonds as a means of support during the crisis. Overall, then, the policies pursued by central banks in our main currency areas were essentially consistent – even with significant fiscal interventions –, albeit with differing measures that varied in scope. We view these worldwide interventions by governments and central banks with their enormous money supply as a not inconsiderable challenge because in some ways they divorce the financial world from the natural, reciprocal control mechanisms of the financial markets and it is unclear to what extent the current or future valuation levels are supported by fundamentals. Emerging hopes as Covid-19 vaccinations roll out and the catch-up effects likely to set in at some point in time may trigger erratic developments on the inflation front and bring about very high, but potentially unstable valuation levels on credit and equity markets. Risk premiums on corporate bonds initially increased very sharply in response to the global outbreak of the Covid-19 pandemic, only to recover appreciably by year-end. Similarly, volatility has once again moved back into much calmer waters. 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 again see the need to take higher write-downs on isolated assets in response to the Covid-19 pandemic not as a reflection of a generally elevated risk in the market, but rather in the context of the risk profile specific to this asset class and set of company characteristics. The significance of real estate risks remains substantial for us 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 our current investment posture.

C.6.4.6 Brexit

The European Union and the United Kingdom negotiated a Trade and Cooperation Agreement (partnership agreement) for their future relations. The agreement covers, among other things, arrangements for cross-border financial services that ensure continued market access. The EU and UK will subsequently further discuss the equivalence of the regulatory regime and have to decided to draw up a framework governing regulatory cooperation. Argenta Holdings Limited is a wholly owned subsidiary of Hannover Rück that operates on a stand-alone basis in the United Kingdom as a member of Lloyd's. The Life & Health branch in the United Kingdom is now being transformed into a so called third-country branch. We also write reinsurance business in the United Kingdom through Group companies in Hannover, Bermuda and Ireland. In view of the agreement that has been reached, we currently consider the implications of Brexit for the Hannover Rück to be manageable.

C.6.5 Contagion risks

Contagion risk refers to the risks originated by interactions between individual entities owned by Hannover Rück, or related to Hannover Rück's affiliation to the HDI Group. More precisely, contagion risk is the propagation of the effect of a failure or financial distress of an organisation in a sequential manner to other organisations, markets or systems, or to other parts of a financial group or financial conglomerate.

Hannover Rück manages this risk by a strict look-through approach in its management systems.

C.7 Any other information

There is no other information to be reported.

D. Valuation for Solvency Purposes

General valuation principles

The valuation of assets and liabilities pursuant to Solvency II is based on economic and market-consistent principles, and takes account of inherent risks.

In line with this concept the assets and liabilities are valued as follows:

- Assets should be valued according to the amount with which they could be exchanged between knowledgeable willing parties in an arm's length transaction.
- Liabilities should be valued according to the amount with which they could be exchanged between knowledgeable willing parties in an arm's length transaction.
- The time value of money should be reflected, i.e. cash flows have to be discounted. The discount rate should take the long-term asset management strategy into account, i.e. whether the company acts as held-to-maturity investor or not.
- When valuing liabilities, no value adjustments are made in order to account for the creditworthiness of the respective insurance or reinsurance company.
- The valuation of assets and liabilities is based on the assumption that the company will continue its business activity ("going concern principle").
- Individual assets and liabilities are valued separately.
- Concepts of materiality shall apply. Absent or erroneous information pertaining to items shall be deemed significant if it could influence the individual or aggregated business decisions of the recipients.
- Simplifications may be applied when the method is deemed appropriate for the type, scope and complexity of the inherent risk.

The underlying principle used for determining the market values of assets and liabilities, with the exception of technical provisions, is the valuation principle pursuant to International Accounting Standards, as was adopted by the EU Commission pursuant to the Directive (EC) No. 1606/2002. For example, the guideline for determining fair values pursuant to IFRS 13 serves as a source of orientation.

The value of technical provisions corresponds to the current amount an insurance or reinsurance company would have to pay if they were to transfer their insurance and reinsurance obligations immediately to another insurance or reinsurance company. Technical provisions must be calculated in a prudent, reliable and objective manner, and must display market consistency.

The value of underwriting provisions shall be equal to the sum of a "best estimate" and a risk margin:

- The best estimate liability (BEL) is the present value of all future cash flows.
- The calculation of the risk margin is done using a Cost of Capital approach.

Any valuation methods used must always work in sync with Article 75, respectively Articles 77 to 82 and Article 86 of the Directive 2009/138/EC.

Hannover Rück made use of the volatility adjustment for the first time. The impact of the application of the volatility adjustment is displayed in Section D.2.

Assessing active markets

In the course of valuing assets, it is necessary to assess as to whether a market is either active or not. Only when a market is active may the current value be taken directly from these markets or derived from comparable assets traded there, in order to determine the market value of assets. If a market cannot be categorised as active, the market value is to be determined using valuation models. Whether or not a market can be viewed as an active market hinges on a discretionary decision regarding the type of financial instruments and local markets. At Hannover Rück this is, however, based on the following, predetermined parameters.

- Business transactions occur with sufficient frequency and corresponding volume, so that price information is continuously available
- The products which are traded on the market are homogeneous
- Contractually willing buyers / sellers can, as a rule, be found at any time
- Prices are freely accessible to the public

An active market is deemed not to exist when, due to the complete and long-term decline in buyers and/or sellers, market liquidity is no longer established. Should transactions be verified as resulting exclusively from forced deals, compulsory liquidations or distressed sales, this is just as much an indicator for an inactive market as are high bid / ask spreads.

In the event that an inactive market has been verified, we use valuation models for the calculation of market values. Please refer to Section D.4.

Solvency II balance sheet

We show our Solvency II balance sheet as of 31 December 2020 on the following two pages. The individual items are explained in the following subsections.

In the headings of the subsections of “D.1 Assets” and “D.3 Other Liabilities”, we use the item designations from EIOPA for improved readability and clear assignment of the sub-sections to the corresponding items in the Solvency II balance sheet.

in TEUR	Item	2020	2019
Assets			
Intangible assets	R0030		
Deferred tax assets	R0040	251,215	129,622
Pension benefit surplus	R0050		
Property, plant & equipment held for own use	R0060	73,785	65,431
Investments (other than assets held for index-linked and unit-linked contracts)	R0070	36,354,766	36,340,042
Property (other than for own use)	R0080	16,359	15,638
Holdings in related undertakings, including participations	R0090	10,909,245	10,949,630
Equities	R0100	0	5,193
Equities - listed	R0110		5,193
Equities - unlisted	R0120	0	0
Bonds	R0130	22,538,498	23,067,654
Government Bonds	R0140	12,490,720	12,581,914
Corporate Bonds	R0150	9,534,402	9,808,831
Structured notes	R0160		155,640
Collateralised securities	R0170	513,375	521,268
Collective Investments Undertakings	R0180	2,208,467	1,888,266
Derivatives	R0190	49,253	52,864
Deposits other than cash equivalents	R0200	632,944	360,796
Other investments	R0210		
Assets held for index-linked and unit-linked contracts	R0220		
Loans and mortgages	R0230	2,947	
Loans and mortgages to individuals	R0250	2,947	
Reinsurance recoverables from:	R0270	4,751,919	5,442,967
Non-life and health similar to non-life	R0280	4,970,819	5,139,675
Non-life excluding health	R0290	4,703,172	4,808,009
Health similar to non-life	R0300	267,647	331,666
Life and health similar to life, excluding health and index-linked and unit-linked	R0310	−218,900	303,292
Health similar to life	R0320	537,058	279,779
Life excluding health and index-linked and unit-linked	R0330	−755,958	23,513
Life index-linked and unit-linked	R0340		
Deposits to cedants	R0350	6,061,865	7,177,254
Insurance and intermediaries receivables	R0360	956,882	732,203
Reinsurance receivables	R0370	383,802	36,253
Receivables (trade, not insurance)	R0380	1,091,642	453,908
Own shares (held directly)	R0390		
Amounts due in respect of own fund items or initial fund called up but not yet paid in	R0400		
Cash and cash equivalents	R0410	519,577	376,850
Any other assets, not elsewhere shown	R0420	82,817	82,339
Total assets	**R0500**	**50,531,217**	**50,836,868**

in TEUR	Item	2020	2019
Liabilities			
Technical provisions – non-life	R0510	22,906,658	21,855,401
Technical provisions – non-life (excluding health)	R0520	21,362,216	20,191,509
Technical provisions calculated as a whole	R0530		
Best Estimate	R0540	20,883,697	19,732,113
Risk margin	R0550	478,519	459,396
Technical provisions - health (similar to non-life)	R0560	1,544,442	1,663,892
Technical provisions calculated as a whole	R0570		
Best Estimate	R0580	1,511,197	1,625,620
Risk margin	R0590	33,245	38,272
Technical provisions - life (excluding index-linked and unit-linked)	R0600	4,234,020	5,600,637
Technical provisions - health (similar to life)	R0610	1,172,955	1,244,313
Technical provisions calculated as a whole	R0620		
Best Estimate	R0630	904,030	1,041,564
Risk margin	R0640	268,924	202,749
Technical provisions – life (excluding health and index-linked and unit-linked)	R0650	3,061,065	4,356,324
Technical provisions calculated as a whole	R0660		
Best Estimate	R0670	1,893,739	3,536,483
Risk margin	R0680	1,167,326	819,841
Technical provisions – index-linked and unit-linked	R0690	282,530	296,581
Technical provisions calculated as a whole	R0700		
Best Estimate	R0710	277,736	295,642
Risk margin	R0720	4,794	939
Contingent liabilities	R0740	1,777	1,777
Provisions other than technical provisions	R0750	108,349	120,670
Pension benefit obligations	R0760	165,291	145,397
Deposits from reinsurers	R0770	3,281,818	3,141,498
Deferred tax liabilities	R0780	2,395,992	2,315,659
Derivatives	R0790	47,949	17,477
Debts owed to credit institutions	R0800		
Financial liabilities other than debts owed to credit institutions	R0810	1,260,484	1,389,468
Insurance & intermediaries payables	R0820	686,702	452,982
Reinsurance payables	R0830	196,677	415,965
Payables (trade, not insurance)	R0840	97,202	127,321
Subordinated liabilities	R0850	2,381,960	2,376,550
Subordinated liabilities in Basic Own Funds	R0870	2,381,960	2,376,550
Any other liabilities, not elsewhere shown	R0880	54,090	83,625
Total liabilities	**R0900**	**38,101,498**	**38,341,007**
Excess of assets over liabilities	**R1000**	**12,429,719**	**12,495,861**

D.1 Assets

D.1.1 Intangible assets R0030

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Intangible assets		61,439

Intangible assets are stated at zero in accordance with Art. 12 No. 2 of the Delegated Regulation under Solvency II. The exceptional circumstances listed under Art. 12 No. 2 of the Delegated Regulation do not apply, due to the fact that intangible assets can neither be disposed of individually nor traded on an active market for similar or identical intangible assets.

In accordance with the HGB a differentiation must be made as to whether it concerns purchased or internally generated intangible assets. While mandatory capitalisation applies for purchased intangible assets, a right to capitalisation exists pursuant to Art. 248 (2) clause 1 of the HGB for internally generated items classified under fixed assets, which is not, however, used by the company.

The commercial valuation of intangible assets is executed in line with the regulations stipulated in Sections 341 et seq. of the HGB. They are valued at acquisition cost less scheduled depreciation in line with the average useful life.

The valuation base in the commercial annual accounts stands at TEUR 61,439. This predominantly concerns the future capitalised income value of the Life portfolio of a branch, as well as software. These may not be capitalised in the Solvency II balance sheet for the above-stated reasons.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Intangible assets		

In the financial year 2020 this balance sheet item did not change.

In comparison to the previous year, assumptions regarding the calculation of this balance sheet item were the same.

D.1.2 Deferred tax assets R0040

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Deferred tax assets	251,215	

In the Solvency II balance sheet, a deferred tax asset totalling TEUR 251,215 is stated as well as a deferred tax liability with the amount of TEUR 2,395,992. Consequently, a liability surplus has been created, the calculation of which is explained in more detail under the item “Deferred tax liabilities R0780”.

With existing differences between the commercial and tax valuation for assets, liabilities and deferred / prepaid items, which are projected to invert in subsequent financial years, this can on-balance result

in a tax relief being stated as a deferred tax asset, or a tax burden being stated as a mandatory deferred tax liability in the trade balance. In the exercising of a voting right pursuant to Art. 274 (1) s. 2 HGB, no deferred tax claims have been stated for a resulting over-funding in the trade balance of Hannover Rück.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Deferred tax assets	251,215	129,622

The increase in deferred tax claims amounting to TEUR 121,593 is predominantly the result of changes to the underwriting balance sheet items and capital investments. For more detailed explanatory notes, please consult the respective sections.

D.1.3 Property, plant & equipment held for own use R0060

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Property, plant & equipment held for own use	73,785	46,068

Under Solvency II a differentiation is to be made for property regarding the extent to which it is intended for own use or a third party. The proportion subject to own use is to be categorised under property held for own use, the proportion subject to third-party use is recognised under the balance sheet item “Property (other than for own use)”. The HGB values for property were also proportionally divided in accordance with their respectively applicable use (held for own use or third-party use) for the purposes of comparison.

Property values are to be set at their fair value (market value) pursuant to Solvency II – irrespective of how the property is to be used. This is calculated as follows: The market price is determined by the price which could be achieved at that point in time, during normal trading in line with statutory regulations and actual market circumstances, while also taking into consideration other attributes and the location of the real estate without accounting for unusual or personal circumstances. The objective evaluation of property, i.e. developed or undeveloped real estate as well as rights to real estate including buildings on third-party real estate, is ensured by way of standardised principles and processes in line with market practices. In this regard, the gross rental method is applied for the determination of fair market values, which is described in further detail in Section “D.4 Alternative methods for valuation”.

In line with commercial law, real estate is valued in principle at its cost of procurement or construction, less scheduled and, when necessary, unscheduled depreciation pursuant to Art. 253 (3) HGB.

The fixtures, fittings and equipment are valued in principle according to their procurement and / or manufacturing cost in line with commercial law, less scheduled and, if necessary, unscheduled depreciation. Low-value assets are fully depreciated in the year of acquisition. With regard to the fixtures, fittings and equipment the valuation pursuant to the Solvency II balance sheet is seen as identical with the valuation used in HGB annual accounts totalling TEUR 24,650. A revaluation is not conducted for reasons of materiality.

The difference between the valuation found in the Solvency II balance sheet and the HGB annual accounts totalling TEUR 27,717 is attributable to the valuation of shares in the business facilities located in Hannover.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Property, plant & equipment held for own use	73,785	65,431

The underlying assumptions for the balance sheet item did not change in the reporting period.

The increase in comparison to the prior year is caused by additional fixtures, fittings and equipment, mainly acquisition of hardware.

D.1.4 Property (other than for own use) R0080

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Property (other than for own use)	16,359	10,136

The valuation is made in principle in accordance with the description found in “Property, plant & equipment held for own use R0060”.

The difference between the Solvency II value and the value presented in the HGB annual accounts as at the balance sheet date amounts to TEUR 6,223 and it is exclusively attributable to the difference between the valuation methods under HGB and Solvency II. While under HGB, amortised acquisition costs are applied less scheduled depreciation, under Solvency II market values are used. Thus, the entire difference concerns hidden reserves.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Property (other than for own use)	16,359	15,638

The decrease in the item value in the year under review is mainly due to the recognition of lower market values as the result of updated valuation reports.

D.1.5 Participations and related undertakings R0090

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Holdings in related undertakings, including participations	10,909,245	7,720,135

Participations are stated at market values under Solvency II. There are no stock market prices available for the valuation of affiliated companies of Hannover Re. The market values of affiliated companies or participating interests are determined on the basis of Solcency II balance sheets or with the

proportional Fair Value as defined in Art. 13 Delegated Regulation. Liabilities are deducted from assets in order to determine the balance sheet equity surplus per affiliated company. All equity surpluses of affiliated companies, including participating interests, are shown in the balance sheet item. For reasons of materiality, some investments are stated at their IFRS investment value.

Participations and related undertakings are recognised pursuant to Art. 255 (1) HGB at their historical cost less any depreciation to the lower fair value pursuant to Art. 341 (1) clause (2) HGB in conjunction with Art. 253 (3) clause (4) HGB.

A difference in the valuation to the amount of TEUR 3,189,110 is predominantly attributable to participations held by the Hannover Re Group in domestic and foreign reinsurers.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Holdings in related undertakings, including participations	10,909,245	10,949,630

In the financial year 2020 Hannover Rück Beteiligung Verwaltungs-GmbH, a wholly owned subsidiary of Hannover Rück, established Hannover Re Holdings (UK) Limited, London/United Kingdom. This is a holding company in which the operational entities in the United States and Bermuda were included.

As part of this transaction Hannover Life Reassurance Company of America, Orlando/USA, Hannover Finance Inc., Wilmington/USA, as well as Hannover Re (Bermuda) Ltd., Hamilton/Bermuda and Hannover Life Reassurance Bermuda Ltd., Hamilton/Bermuda, were included in the holding company.

In comparison to previous year, the assumptions for the calculation of this balance sheet item remain unchanged.

D.1.6 Equities R0100

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Equities - listed		

Listed equities are valued on the basis of current, publicly available share prices. Publicly available pricing is available for 100% of the portfolio items reported here.

The valuation of listed equity is performed fundamentally on an item-by-item basis. The price quoted on the domestic stock exchange is used as a standard. If it is deemed prudent (e.g. due to a more liquid trading venue) the quotation may be taken from another stock exchange.

Irrespective of the stock exchange a hierarchy of quotation types is applied. The highest priority is allocated to the quotation type “Bid”. If this is unavailable the quotation-types “Traded” and “Close” are to be used in second and third place respectively.

All applied methods and specifications are assessed for their topicality and / or appropriateness at least once a year, and adjusted as necessary.

Currently, no listed equities are held in the portfolio.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Equities - listed		5,193

The difference of TEUR 5,193 compared to the previous year results from the sale of the listed equities.

D.1.7 Bonds R0130

Government bonds, corporate bonds, structured products and collateralised bonds are predominantly valued on the basis of quoted prices, which have been realised on active markets. If no publicly available price quotations are available or the markets in which they originate are deemed to be inactive, the items are allocated a theoretical valuation.

Market quotations are provided by selected price service agencies, trading information systems or intermediaries (brokers) deemed to be trustworthy. The potential sources of price information available are allocated a ranking within a hierarchy. As a rule, price quotations issued by price service agencies are allocated the highest priority, while those provided by intermediaries are allocated the lowest. Exceptions can occur, for example, for selected market segments / currency combinations.

Irrespective of the trading venue a hierarchy of price types is applied (for further information please refer to “Equities R0100”).

In the event of a theoretical valuation, the present value method is applied as the valuation method for bonds without particular structural characteristics. For structured products, valuation is performed using interest rate models, cf. also “D.4 Alternative methods for valuation”. Furthermore, the net assets valuation method – based on market values – is used.

All applied methods and stipulations are assessed for their topicality and / or appropriateness at least once a year, and adjusted as necessary.

D.1.7.1 Government Bonds R0140

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Government Bonds	12,490,720	11,579,519

Under Solvency II, investments listed under the following balance sheet items pursuant to the HGB are allocated to this item:

- bearer bonds and other fixed-interest securities
- registered bonds and
- notes receivable.

For the valuation we refer to the detailed explanations in “Bonds R0130”.

Publicly available prices are available for 96% of the portfolio items reported here, 2% are valued using the cash value method and for 2%, prices from external sources are used.

The difference between the Solvency II value of these positions and their value stated within the annual accounts pursuant to the HGB comes to an overall total of TEUR 911,201.

In essence, approximately TEUR 839,772 are attributable to hidden reserves arising from the different valuations and TEUR 71,429 to the different approaches of stating accrued interest. Pursuant to Solvency II these are aggregated to the market value while in line with the HGB the accrued interest of a balance sheet item is allocated separately from investments – to deferred / prepaid items.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Government Bonds	12,490,720	12,581,914

The decrease in portfolio size compared to the previous year is predominantly attributable to exchange rate effects, in particular from the US Dollar and the British Pound. The overall decline in interest rates, however, had a contrary positive effect on the market value development.

D.1.7.2 Corporate Bonds R0150

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Corporate Bonds	9,534,402	9,121,437

Under Solvency II, investments listed under the following balance sheet items pursuant to the HGB are allocated to this item:

- bearer bonds and other fixed-interest securities
- registered bonds and
- notes receivable.

For the valuation we refer to the detailed explanations in “Bonds R0130”.

Publicly available prices are available for 88% of the portfolio items reported here, 9% are valued using the cash value method. 2% are valued using interest structure models and 1% are valued using prices from external sources.

The difference between the Solvency II value of these positions and their value stated within the annual accounts pursuant to the HGB comes to an overall total of TEUR 412,965.

In essence, approximately TEUR 542,262 are attributable to hidden reserves arising from the different valuations and TEUR 95,723 to the different approaches of stating accrued interest. Pursuant to Solvency II these are aggregated to the market value (dirty value), while in line with the HGB the accrued interest of a balance sheet item is allocated separately from investments – to deferred / prepaid items.

The remaining difference of TEUR -225,020 results from the valuation of one securitiy, which is recognized only in accordance with the HGB.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Corporate Bonds	9,534,402	9,808,831

The decrease in portfolio size compared to the previous year is predominantly attributable to exchange rate effects, in particular from the US Dollar and the British Pound and to the slight rise in the credit spread levels. The overall decline in interest rates, however, had a contrary positive effect on the market value development.

D.1.7.3 Structured notes R0160

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Structured notes		

Under Solvency II, investments listed on HGB balance sheet item “bearer bonds and other fixed-interest securities” are allocated to this item.

In addition to the valuation methods presented in “Bonds R0130” the following interest rate models are generally used with structured products: the Hull-White, the Black-Karasinski and the Libor Market Model. The application of interest rate models is based on the assumption that changes in interest rates follow certain probability distributions and stochastic processes. As of the due date, 100% of the portfolios to be reported here are valued using the net asset value method based on market values.

Structured debt instruments are valued according to the acquisition cost principle in accordance with Section 255 Para 1 of the HGB.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Structured notes		155.640

Structured debt instrument reported last year expired in the reporting period.

D.1.7.4 Collateralised securities R0170

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Collateralised securities	513,375	514,733

Under Solvency II, investments listed under the following balance sheet items pursuant to the HGB are allocated to this item:

- bearer bonds and other fixed-interest securities

In addition to the valuation methods stated in “Bonds R0130” it should be noted that special forms of collateralised securities such as, for example, the CDO / CLO are valued externally on the basis of specialist service providers. Given that, as a rule, no public price quotation is available, the market value is derived theoretically using a Mark-to-Model approach. This is done using the valuation model “Intex” (industry standard) and parameterised on the basis of input factors observed in the market.

Collateralisation is recognised as a risk-minimising factor in the valuation; however, a spread, migration and default risk is allocated.

For special forms of collateralised papers such as the CDO / CLO assumptions are made regarding the speed of repayment and recovery rates.

100% of the portfolios reported here are valued using the present value method (taking into account information on the composition of the receivables pool obtained from a database of the specialist data provider “Intex”).

The difference between the Solvency II value of these investments and their value stated within the annual accounts pursuant to the HGB totals TEUR -1,358

Here, approximately TEUR -3,833 are attributable to hidden burdens arising from the different valuation bases and TEUR 2,475 to the different approaches of stating accrued interest. Pursuant to Solvency II, these are aggregated to the market value, while in line with the HGB the accrued interest of a balance sheet item is allocated separately from investments – to accrued items.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Collateralised securities	513,375	521,268

The decrease in portfolio size compared to the previous year is predominantly attributable to exchange rate effects, in particular from the US Dollar and the British Pound and to the slight rise in the credit spread levels. The overall decline in interest rates, however, had a contrary positive effect on the market value development.

D.1.8 Collective Investments Undertakings R0180

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Collective Investments Undertakings	2,208,467	1,798,169

Investment funds are valued at the official withdrawal price.

The withdrawal price is regularly calculated and published by the investment company in accordance with prescribed regulations. As a rule, they are also made available automatically by price service agencies. Alternatively, the Net Asset Value (NAV) method can be applied. The Net Asset Value is calculated using the sum of all assets (this case predominantly comprises investments as well as bank balances) less potential liabilities.

Publicly available prices are available for 18% of the positions covered here, 73% are valued using the present value method and for 9%, prices from external sources are used.

All applied methods and stipulations are assessed for their topicality and / or appropriateness at least once a year, and adjusted as necessary.

The difference between the Solvency II value and the value stated in the annual accounts totals TEUR 410,298 for investment trust shares.

Pursuant to the HGB investment trust shares are valued according to the diluted lower value principle in line with the regulations pertaining to fixed assets; under Solvency II market values are to be applied. This subsequently leads to a valuation difference to the amount of TEUR 410,298. This exclusively concerns hidden reserves.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Collective Investments Undertakings	2,208,467	1,888,266

In comparison to previous year, the increase in this asset class is largely attributable to the expansion of this asset class during the reporting period.

D.1.9 Derivatives R0190

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Derivatives	49,253	

Derivative financial instruments include financial derivatives, derivatives which are separated from insurance contracts pursuant to IFRS 4.7, and derivatives on biometric indices.

Derivative assets (R0190) and Derivative liabilities (R0790) are stated in the Solvency II balance sheet as separate items, unoffset at their market value. The market value of derivatives primarily corresponds with the stock exchange rate. If no stock exchange rates are available, derivatives are valued on the basis of parameters derived from observed market data (e.g. interest and spread curves, volatilities, spot and forward rates) within the applied framework of suitable valuation models and methods.

In annual accounts pursuant to the HGB the valuation of financial derivatives and derivatives on biometric indices is done on a fair value basis. Derivatives which are part of an insurance contract are valued as part of technical liabilities, and are not stated separately.

Hannover Rück concludes central hedging transactions with third parties for some of its subsidiaries. The valuation of these financial derivatives is carried out at fair value. Hannover Rück transfers the cost of these hedging transactions internally to these subsidiaries, so that in their Solvency II balance sheet, derivative assets stand vis-à-vis derivative liabilities in equal amount TEUR 49,253 as at the balance sheet date.

Pursuant to the HGB the company had summarised, as at the reporting date, reciprocal forward foreign-exchange contracts into valuation units with offsetting effect under the application of the net hedge presentation method. The application of the net hedge presentation method means that changes in the value of the underlying and hedging transactions are offset and are neither stated in the balance sheet nor in the profit and loss statement, insofar as the occurrence of risks is excluded

and the positive and negative changes in value of the underlying and hedging transactions are nearly equalised. Thus, TEUR 49,253 of the difference in valuation are traced back to the different reporting of the hedging transactions under Solvency II and the HGB.

Unbundled derivatives and derivatives on biometric indices are stated in the Solvency II balance sheet pursuant to IFRS 4 and IAS 39 as derivative assets and – with regard to item R0790 – are recognised as obligations at their fair value. The value assessment is made on the basis of theoretical models in the absence of a market value, in particular through the use of the cash value method, which is described in Section “D.4 Alternative methods for valuation”.

A retrocession agreement within the line of Life & Health with which the premiums were deposited with Hannover Rück and invested in a structured bond was terminated as scheduled. A guarantee was issued by the retrocessionaire for their market value. This guarantee was to be separated in accordance with the regulations laid out under IFRS 4 by a retrocession agreement, and was recognised as a derivative financial instrument at its market value. The derivative was recognised at the balance sheet due date of the previous year with a positive market value totalling TEUR 14,083 under other financial instruments recognised at their fair value in profit. In the course of the previous year the change in the fair value of the derivative resulted in a charge. Conversely, the performance of the structured bond, which was also measeured at fair value, gave rise to income in the same amount in the previous year.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Derivatives	49,253	52,864

In comparison to the previous year, assumptions regarding the calculation of this balance sheet item were the same.

D.1.10 Deposits other than cash equivalents R0200

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Deposits other than cash equivalents	632,944	621,807

Deposits other than cash equivalents comprise fixed-term deposits. Deposits are valued to 100% at their redemption rate.

The difference between the Solvency II value of these investments and their value stated within the annual accounts pursuant to the HGB totals TEUR 11,137

The difference is attributable to two effects: on the one hand to different valuations in the amount of TEUR 1,142, and on the other hand to the different methods of stating accrued interest to an amount of TEUR 9,995. The accrued interest is allocated in accordance with the HGB to deferred / prepaid items, while under Solvency II it is allocated to the respective balance sheet item (dirty value).

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Deposits other than cash equivalents	632,944	360,796

Inventories under this balance sheet item are an important instrument used to manage current liquidity at Hannover Rück. The change compared to the previous year was within the typical margin for fluctuation as part of this approach. There were no valuation adjustments during the period under review.

D.1.11 Other investments R0210

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Other investments		179,743

In the Solvency II balance sheet, other investments are to be recognised at their market value. The Solvency II regulations align with IAS 39 (Financial instruments: recognition and valuation). Pursuant to this standard, financial instruments are to be allocated to one of four categories (“Hold until maturity”, “Available for disposal”, “Held for trading purposes” and “Loans and receivables”).

Pursuant to the HGB other investments are valued at their acquisition cost and / or at the lower market value. Investments which are intended to permanently facilitate business operations are valued pursuant to Section 341 b Para 2 of the HGB and in connection with Section 253 Para 3 of the HGB in accordance with the diluted lowest value principle. An assessment regarding the permanence of value adjustments is undertaken on a case-by-case basis.

The value stated in the annual accounts pursuant to commercial law, which stands at TEUR 179,743 comprises accrued interest and rental payments. These are listed in the Solvency II balance sheet in the respective investment item, so that no value is listed under other investments.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Other investments		

In comparison to the previous year, assumptions regarding the calculation of this balance sheet item were the same.

D.1.12 Loans and mortgages to individuals R0250

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Loans and mortgages to individuals	2,947	2,912

Loans and mortgages are recognised at their market value under Solvency II.

Under HGB, the valuation is executed using the diluted lowest value principle for fixed assets. The present value method is applied in the absence of any particular structural characteristics. For structured loans, interest rate models are used, cf. “D.4 Alternative methods for valuation”.

The difference between the valuation in the Solvency II-balance sheet and the HGB annual accounts totalling TEUR 35 is attributable to the different valuation approaches.

Comparison to prior year

in TEUR	Solvency II 2018	Solvency II 2017
Loans and mortgages to individuals	2,947	

In the previous year no value was listed under this balance sheet item.

D.1.13 Reinsurance recoverables R0270

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Property & Casualty reinsurance	4,970,819	6,278,254
Life & Health reinsurance	−218,900	616,071
Total	**4,751,919**	**6,894,325**

The approach used for the calculation of the reinsurance recoverables under Solvency II is identical to the approach used for the best estimate liability (BEL) calculation. For the retrocessions, separate projections are generated. All future cash flows are projected into the future using the same methods and assumptions as for the inward business. However, the projection period can differ depending on the structure of the retrocession contract. For the reinsurance recoverables, a risk margin is not taken into account, because the risk mitigating effects of the retrocession are taken into account under the position technical provisions. More precisely, under the position technical provisions the risk margin is determined on a net basis, whereas the BEL is given on a gross basis. More details regarding the calculation of the technical provisions are provided in section D.2 (general), section D.2.1 (Property & Casualty) and section D.2.2 (Life & Health).

The business is segmented based on the structure of the reinsurance agreements. A counterparty default adjustment is taken into account.

Under Solvency II, the not due balances of accounts payables and receivables were allocated to reinsurance recoverables.

The remaining differences in the valuation approach between Solvency II and HGB are comparable to the differences in the valuation of the best estimate liability, refer to section „D.2.1 Technical Provisions Property & Casualty“ subsection “Comparison to HGB-provisions” and section „D.2.2.4 Comparison of the Technical Provision with the HGB Liability“ for the Life & Health segment.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Property & Casualty reinsurance	4,970,819	5,139,675
Life & Health reinsurance	−218,900	303,292
Total	**4,751,919**	**5,442,967**

For Property & Casualty reinsurance, the development of reinsurance recoverables under Solvency II follows corresponding IFRS movements.

For Life & Health reinsurance, the changes in the amount of reinsurance recoverables are mainly due to the planned termination of material retrocession treaties with contractual partners outside the Hannover Re Group.

D.1.14 Deposits to cedants R0350

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Deposits to cedants	6,061,865	7,553,787

The economic value of the deposits of the asset side is determined as the balance sheet item “Deposits to cedants”.

For the majority of treaties (risk accounted under IFRS / US GAAP), the gross presentation is pursued. For business with very limited risk transfer, Hannover Rück follows the IFRS presentation since the gross presentation (as, e.g., under HGB) would not be in line with the substance over form principle and would misstate the nature and intent of the transactions.

The market value of any “gross” deposits will be determined on a mark-to-model basis; especially the value of any “fixed investment income over risk free” is part of the value of the deposits.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Deposits to cedants	6,061,865	7,177,254

Changes in comparison to the previous reporting period in the amount of deposits to cedants are due to market value adjustments as well as the planned termination of some material treaties.

D.1.15 Insurance and intermediaries receivables R0360

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Insurance and intermediaries receivables	956,882	3,971,473

EIOPA differentiates between receivables as follows:

- Receivables from insurance companies and intermediaries: Amounts due from insurance policyholders, other insurance companies or insurance-related companies, which have not been accounted for in the cash flow of technical provisions, in particular payments which are overdue
- Receivables from reinsurers: Amounts due from reinsurers or reinsurance-related companies, which are not considered in the technical provisions

Pursuant to Solvency II receivables from insurance companies and intermediaries are to be valued at the expected present value of future cash flows, i.e. they are to be discounted using the applicable rate of interest pursuant to Solvency II. Furthermore, the counterparty default risk is to be taken into consideration in the valuation. Both are omitted for reasons of simplification.

Receivables from insurers and intermediaries are recognised at their nominal amounts in line with the HGB.

Pursuant to the German Commercial Code and / or the Insurance Accounting Decree (RechVersV) no differentiation is made between active reinsurance and retrocession for accounts receivable / payable. The HGB values of this item therefore also comprise the receivables from reinsurers.

The differences in valuation of items R0360 and R0370 are therefore analysed together and amount to TEUR -2,630,788. The majority of the differences result from the fact of different valuation measures regarding the due date of the receivables.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Insurance and intermediaries receivables	956,882	732,203

From Closing 2019 on, only the current balances due are included in the respective positions, non-current future balances are part of the contractual cash flows shown within the best estimate of the technical provisions or reinsurance recoverables.

Compared to the previous period, the assumptions regarding the calculation of this item did not change.

D.1.16 Reinsurance receivables R0370

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Reinsurance receivables	383,802	

Pursuant to Solvency II receivables from reinsurers are to be valued at the expected present value of future cash flows , i.e. they are to be discounted using the applicable rate of interest pursuant to Solvency II. Furthermore, the counter-party default risk is to be taken into consideration in the valuation. Both are omitted for reasons of simplification.

Receivables from reinsurers are recognised at their nominal amounts in line with the HGB. Valuation reserves have been formed for default risks.

The differences in valuation are stated in the item “Insurance and intermediaries receivables R0360”.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Reinsurance receivables	383,802	36,253

Compared to the previous period, the assumptions regarding the calculation of this item did not change.

D.1.17 Receivables (trade, not insurance) R0380

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Receivables (trade, not insurance)	1,091,642	1,081,184

Pursuant to Solvency II receivables are to be valued at the expected present value of future cash flows i.e. they are to be discounted using the applicable rate of interest pursuant to Solvency II. Furthermore, the counter-party default risk is to be taken into consideration in the valuation. Both are omitted for reasons of simplification.

Receivables are recognised at their nominal amount pursuant to the HGB. Valuation reserves have been recognized for default risks.

The difference between the items in the solvency statement and in the financial statements prepared in accordance with German commercial law results from various reclassifications.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Receivables (trade, not insurance)	1,091,642	453,908

Receivables (trade, not insurance) increased significantly in the reporting year. This was mainly driven by an increase of receivables from profit absorption from affiliated companies in the amount

of TEUR 554,551, an increase of tax receivables in the amount of TEUR 121,297, and a decrease of other receivables in the amount of TEUR 38,114 compared to the previous year.

Compared to the previous period, the assumptions regarding the calculation of this item did not change.

D.1.18 Cash and cash equivalents R0410

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Cash and cash equivalents	519,577	519,577

Cash and cash equivalents include deposits, current account balances with banks and cash in hand. Nominal amounts are recognised in accordance with both Solvency II and the HGB.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Cash and cash equivalents	519,577	376,850

Cash and cash equivalents increased by TEUR 142,727 during the reporting period.

D.1.19 Any other assets, not elsewhere shown R0420

Differences in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Any other assets, not elsewhere shown	82,817	82,076

The balance sheet item “Any other assets, not elsewhere shown“ comprises the following items:

- Reinsurance claims stemming from pension obligations
- Other deferred / prepaid items in relation to service contracts, licences and maintenance
- Settlement accounts with representatives of Hannover Rück

Deferred / prepaid items and settlement accounts are recognised at their nominal amount under Solvency II and in accordance with German commercial law.

The reinsurance claims stemming from pension obligations are recognised at their fair value in accordance with German commercial law and under Solvency II. In accordance with the HGB components of commitments linked to securities are offset with the corresponding obligations. In accordance with Solvency II these commitments linked to securities are not offset, due to the fact that assets are guaranteed by a Group company of Talanx (IAS 19).

The difference between the items in the Solvency II balance sheet and the annual accounts in accordance with HGB predominantly results from the provisions regulating the offsetting of reinsurance claims stemming from pension obligations.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Any other assets, not elsewhere shown	82,817	82,339

In comparison to previous year, assumptions for the calculation of this balance sheet item remain unchanged.

D.2 Technical Provisions

The technical provision (TP) under Solvency II is determined as the sum of the best estimate liability (BEL) and the risk margin (RM).

Cash flows are discounted with risk-free rates in line with EIOPA requirements. A matching adjustment is not applied. Furthermore, the risk-free yield curves are not adjusted as set out in Article 308c of the directives 2009/138/EC.

A temporary deduction according to Art. 308d of the directives 2009/138/EC is not applied. Furthermore, the concept of calculating the “TP as a whole” is currently not applied.

The volatility adjustment according to Article 77d of the Directive 2009/138/EC was used for calculating the BEL. For year-end 2019 Hannover Rück has received the approval from BaFin for a dynamic modelling of the volatility adjustment. By this, the effect of the volatility adjustment is captured in the calculation of the required capital more adequately. The following table shows the impact of a non-application of a volatility adjustment on the TP, the Solvency Capital Requirement (SCR), the Minimum Capital Requirement (MCR), the basic own funds and the amounts of own funds eligible to meet the MCR and the SCR.

Even under a non-application of a volatility adjustment, the solvency ratio is still comfortable.

Impact of non-application of a volatility adjustment

in TEUR	Amount with Long Term Guarantee measures and transitionals	Impact of volatility adjustment set to zero
Technical provisions	27,423,208	266,594
Basic own funds	14,268,992	−230,626
Eligible own funds to meet Solvency Capital Requirement	14,268,992	−230,626
Solvency Capital Requirement	5,949,073	247,049
Eligible own funds to meet Minimum Capital Requirement	12,941,142	−216,496
Minimum Capital Requirement	2,677,083	111,172

For Solvency II purposes, all contracts have to be evaluated over the whole lifetime within the individual contract boundaries (ultimate view). The contract boundary is defined as the future date on which at least one of the following criteria is met:

- The (re)insurance undertaking has an unilateral right to terminate the contract.
- The (re)insurance undertaking has an unilateral right to reject premiums payable under the contract.
- The (re)insurance undertaking has an unilateral right to amend the premiums or benefits payable under the contract in such a way that the premiums fully reflect the risks.

In case no such condition is met, the policies are projected until their natural expiry.

The BEL is shown on a gross basis in the following, i.e. before the reduction of reinsurance recoverables, if not stated otherwise. The RM is shown on a net basis, i.e. reflecting the risk mitigating effect of retrocessions. This is consistent with the methodology used in the Solvency II balance sheet.

Best Estimate Liability (BEL)

The calculation of the BEL is based on the projection of future cash in- and outflows including premiums, claims, and expenses. Best estimate assumptions are used in the calculation of the BEL. The expenses consist of direct administration expenses and costs of on-going operations.

Cash flows in connection with funds withheld (FWH) – increase, decrease or interest on FWH – of the underlying business are usually not netted against the liability cash flows. Any FWH shown as such in the IFRS balance sheet will need to be shown as a FWH in the Solvency II balance sheet. For very risk remote transactions a netted presentation is still proceeded in line with the IFRS presentation. For all other transactions the FWH are grossed up. The quantitative FWH information inclusive a comparison with the previous year is provided in Section “Deposits to cedants R0350” and “Deposits from reinsurers R0770” (in total for Property & Casualty and Life & Health reinsurance).

The not due balances of accounts payables and receivables were allocated to the best estimates of technical provisions (for assumed business) or reinsurance recoverables (for retroceded business).

For the Property & Casualty and Life & Health business, the TP does not include any financial options and guarantees (FOGs).

The projections are done separately for assumed and retroceded business using the same bases, methods and assumptions.

Risk Margin (RM)

According to Art. 37 (1) Delegated Regulation, a uniform Cost of Capital (CoC) approach is used for calculating the risk margin.

The CoC factor is 6%. The required capital is the SCR under Solvency II according to Hannover Rück’s internal model. The allocation of the SCR to the lines of business reflects the contribution to the SCR (Art. 37). The allocated SCR contributions are projected to future periods using appropriate risk drivers for each line of business.

Diversification between the Property & Casualty and Life & Health reinsurance business group within Hannover Rück is taken into account.

Covid-19 pandemic

Hannover°Re classified the Covid-19 pandemic as a global crisis for the purposes of business continuity management in early 2020 and initiated the measures defined in the guidelines on Business Continuity Management. These steps include, among other things, the setting up of a crisis management team. In the course of the year the Crisis Management Team took various decisions to maintain regular business operations, including in response to official measures. They encompass an extensive reduction in travel, a broad changeover to teleworking and the use of videoconferences. The measures taken were successful and we have not so far identified any material impacts of the Covid-19 pandemic on our operations.

The pandemic brought a surge in volatility on financial markets, which in some respects proved to be temporary. Our asset / liability management including the use of the volatility adjustment protects Hannover°Re’s financial strength against such changes in volatility. Despite the strains associated with the Covid-19 pandemic and the extraordinary volatility on the capital market, we were thus able to secure a robust capital base, with solvency ratios comfortably above our limit of 180% and threshold of 200%. This was achieved even against the backdrop of the incurred and anticipated insured losses.

Given that the pandemic is still ongoing, any forecasts remain subject to considerable uncertainty. We continue to evaluate our financial strength and profitability on a regular basis using stress tests and sensitivity analyses and will take measures as needed to reduce risks or strengthen our equity resources.

D.2.1 Technical provisions Property & Casualty

D.2.1.1 Value of technical provisions

Technical provisions of Property & Casualty reinsurance, split by lines of business
in TEUR

Line of business	BEL	RM	TP	TP HGB	Difference SII and HGB
General liability insurance	2,970,184	72,347	3,042,532	4,209,355	−1,166,824
Workers' compensation insurance	128,435	2,986	131,420	121,816	9,605
Income protection insurance	215,469	4,086	219,555	295,367	−75,812
Fire and other damage to property insurance	3,967,606	83,799	4,051,405	5,389,767	−1,338,362
Motor vehicle liability insurance	1,128,811	27,641	1,156,452	1,495,054	−338,601
Credit and suretyship insurance	1,357,594	26,257	1,383,850	1,735,879	−352,028
Marine, aviation, transport	878,410	19,799	898,208	1,320,739	−422,530
Other motor insurance	857,964	20,059	878,023	1,034,301	−156,278
Other insurance	329,173	7,669	336,841	471,264	−134,423
Non-proportional health reinsurance	1,143,420	25,770	1,169,189	1,865,374	−696,185
Non-proportional property reinsurance	2,554,463	65,205	2,619,668	4,004,793	−1,385,125
Non-proportional marine, aviation and transport	698,219	16,363	714,582	1,263,537	−548,955
Non-proportional casualty reinsurance	6,165,146	139,785	6,304,931	8,125,085	−1,820,154
Total Non-Life Obligation	**22,394,893**	**511,764**	**22,906,658**	**31,218,228**	**−8,311,570**

The table above gives an overview of the technical provisions of Property & Casualty reinsurance.

"Other insurance" comprises the lines of business assistance, legal expenses insurance, medical expense insurance and miscellaneous financial loss.

D.2.1.2 Valuation of technical provisions

Bases

For the calculation of the BEL under Solvency II the business of the company is split into homogeneous risk groups such that the nature, scale and complexity of the business is adequately taken into account.

In general, there are no deviations regarding the valuation methods between the different lines of business, therefore the valuation methods described in the following paragraphs are valid for all segments of Property & Casualty reinsurance.

Methods

The evaluation of the BEL is based on the estimation of future cash flows, including all expected (future) cash in- and outflows related to existing obligations taking into account the time value of money. The BEL is calculated separately with respect to the best estimate premium provisions and the best estimate claims provisions.

The best estimate premium provision relates to claim events occurring after the valuation date and hence considers all loss, premium and cost cash flows relating to unearned incepted business taking into account the respective discount effect.

The best estimate claims provision relates to claim events occurring before the valuation date and hence considers all loss, premium and cost cash flows relating to earned business taking into account the respective discount effect.

The Solvency II calculations to determine all relevant cash flows for premium and claims provision reflect a best estimate projection. The calculation of BEL is based on gross data. Therefore, cash flows for premiums, claims and costs are modelled separately.

For the calculation, a whole-contract-view (with respect to the contractual agreements) is taken into account, i.e. all cash in- and outflows are projected to the economic ultimate within the contract boundaries.

The BEL comprises the sum of the discounted cash flows and is aggregated to the minimum lines of business according to Solvency II requirements.

Proportional non-life reinsurance obligations are mapped on the following lines of business under Solvency II:

- Medical expense insurance
- Income protection insurance
- Workers' compensation insurance
- Motor vehicle liability insurance
- Other motor insurance
- Marine, aviation, transport
- Fire and other damage to property insurance
- General liability insurance
- Credit and suretyship insurance
- Legal expenses insurance
- Assistance
- Miscellaneous financial loss

Non-Proportional non-life reinsurance obligations are allocated on

- Non-proportional health reinsurance
- Non-proportional casualty reinsurance
- Non-proportional marine, aviation and transport
- Non-proportional property reinsurance

Assumptions

For the calculation of the BEL, development pattern and estimated ultimates are applied on the segments which are used for IFRS reserving. The pattern and the ultimates are determined on run-off triangles using state-of-the-art actuarial methods. The triangles are generated using up-to-date and trustworthy data.

With respect to currencies the cash flows are calculated on a minimum granularity level according to the internal model. The cash flows are discounted using the risk-free interest rates provided by EIOPA and converted to the reporting currency using the exchange rate on the valuation date.

Overall, the described valuation bases, methods and assumptions ensure that the calculation of the BEL is proportionate to the nature, scale and complexity of the underlying risks.

Reinsurance Recoverables

In general, the projection of reinsurance recoverables is undertaken analogously to the principles applied for the calculation of technical (gross) provisions of Property & Casualty reinsurance.

Reinsurance recoverables are adjusted with regard to the expected loss upon default of the counterparty. This adjustment is determined separately and is based on the valuation of the probability of a default per counterparty over the whole lifetime – whether be it through insolvency or legal dispute – as well as the resulting change in cash flows due to loss per default at the respective time under consideration.

According to the HGB the demandable amounts from reinsurance contracts are calculated on the basis of reinsurance contracts. Valuation reserves have been formed for default risks.

The differences in the valuation apply analogously to the differences in the valuation of the best estimate liability, please refer to Section “D.2.1.4 Comparison with other provisions”.

D.2.1.3 Level of Uncertainty

The economic valuation of the P&C reserves comprises a certain level of uncertainty. This consists of the uncertainty of the timing of future cash flows, ultimate loss size and retrocessionaire default and is constantly monitored by several assessments.

Besides internal quality assurance and validation work, the actuarial calculations regarding the adequacy of the reserves are also subject to annual quality assurance reviews conducted by external firms of actuaries and auditors.

In the course of the segmentation of the business and the process of assumption setting it is ensured that the economic value of the technical provisions is calculated in a prudent, reliable and objective manner following the indications of Section 75 of the insurance supervision law (VAG). The nature and complexity of the reinsurance business and inherent reserving risks and data uncertainties is taken adequately into account.

For incorporating a default of the retrocessionaires, an expected default adjustment is made, which is related to the particular rating of the counterparty. In addition, to keep the level of uncertainty as small as possible no positive EPIFP is assumed for the P&C business from Hannover Rück.

The risk margin, which is allocated to the different lines of business, can be taken as an indicator for the inherent risk of the business.

The calculation of the risk margin includes uncertainty with respect to the amount of solvency capital requirement and with respect to the projection of the future development of the solvency capital requirement. The solvency capital requirement is calculated using the internal model of the company, which is embedded into the internal control system of the company and is subject to defined validation standards. The assumptions regarding the projection of the future development of the solvency capital requirement are agreed within the company and – as part of the solvency balance sheet – are subject to an external audit of the auditing company.

D.2.1.4 Comparison with other provisions

Comparison to HGB-provisions

This section outlines the reconciliation of the technical provisions from HGB to Solvency II as at 31 December 2020.

The following table quantifies the material revaluation effects.

Major revaluation effects
in TEUR

Description	2020
Technical provisions property and casualty reinsurance net under HGB	**24,939,973**
Proportion of business that is ceded to reinsurer under HGB	6,278,254
Equalisation reserve	−3,771,372
Discounting of cash flows	−639,714
Risk margin	511,764
Other revaluation effects	−1,748,390
Total revaluation effect from HGB to Solvency II	**630,543**
Netting of accounts payables and receivables	−2,663,858
Technical provisions property and casualty reinsurance under Solvency II	**22,906,658**

The valuation methods described above hold for all lines of business of Property & Casualty reinsurance, the different revaluation effects are not split into the Solvency II lines of business.

Under Solvency II safety loadings are inapplicable due to the ‘best estimate’ calculating principle, whereas under HGB safety loadings are implicitly included in the technical provisions due to the principle of prudence. Similarly, the equalisation reserve is omitted, which is also a technical provision under HGB to compensate uncertainties.

Instead, a risk margin is build up under Solvency II. The risk margin covers the costs of providing an amount of eligible own funds equal to the Solvency Capital Requirement necessary to support the insurance and reinsurance obligations over their lifetime.

The calculation of the technical provisions under HGB follows the realization principle, which only allows a profit to be reported when a profitable transaction has been legally or at least economically realised. A deferral as with, for example, unearned premiums under HGB is not applicable under Solvency II.

Solvency II technical provisions are calculated as a probability weighted average, whereas under HGB generally only annuity reserves are discounted.

In addition, Solvency II cash flows are netted against the accounts payables and receivables.

Comparison to BEL of last year

Comparison to prior year

in TEUR	2020	2019
BEL gross	22,394,893	21,357,734
BEL net	17,424,074	16,218,059
RM	511,764	497,667

The BEL increases due to a decline in interest rates, increased business volumes as well due to provisions for large losses inclusive losses from Covid-19.

D.2.2 Technical provisions Life & Health

D.2.2.1 Quantitative information on technical provisions Life & Health

In this section, quantitative information for the Life & Health business with respect to BEL, RM, TP as well as the statutory liability is provided.

Details with respect to the basis of valuation, the valuation methods and the main assumptions underlying the calculation of the TP are given in Section „D.2.2.2 Valuation of the technical provisions".

Material differences between the TP and the statutory liability are explained in Section D.2.2.4.

The following table provides an overview of the liabilities of the segments. The index-linked and unit-linked business is contained in the life segment.

Technical provisions Life & Health per line of business
in TEUR

Line of Business	BEL	RM	TP	HGB Liability	Comparison SII and HGB
Life	2,171,476	1,172,120	3,343,596	7,537,478	−4,193,883
Health	904,030	268,924	1,172,955	1,843,288	−670,333
Total	**3,075,506**	**1,441,044**	**4,516,550**	**9,380,766**	**−4,864,216**

Details regarding the treatment of funds withheld (FWH) as well as payables and receivables are provided in Section D.2. The segmentation into the Life & Health lines of business is slightly different under Solvency II and HGB. A reconciliation from the statutory liability net of reinsurance to the Solvency II TP net of reinsurance is provided in Section D.2.2.4.

D.2.2.2 Valuation of the technical provisions Life & Health

Valuation basis

All business is valued employing current best estimate assumptions. If not mentioned otherwise, all explanations provided in the following sections shall apply for both the Life & Health segment. The general methodology used for calculating the BEL, RM and TP is described in Section D.2.

With only a few exceptions, the BEL is calculated individually per treaty. The calculation is based on weighted model points (paragraph “Valuation Methods”) or – if available and material – based on individual policy data. Usually the portfolio development is modelled using appropriate mortality and morbidity tables, respectively, as well as lapse rates. A certain part of the risk premium basis business is modelled based on a loss-ratio based approach.

Valuation methods

In the following the valuation methods for calculating the TP are described.

Based on weighted model points (e.g. tariff, gender mix, entry age, policy term, reinsurance conditions) and policy data, respectively, as well as assumptions for mortality, morbidity, lapse and relevant interest rate curves, the portfolio development and all resulting reinsurance profit items (i.e. premium, commission, benefits, reserve changes, and interest) are projected into the future.

Assumed and retroceded business is projected separately. Management expenses are allocated to treaties and projected into the future. Usually the BEL is calculated in the respective treaty main currency and using currency specific interest rate curves.

Simplified methods are not used for calculating the BEL and RM, respectively.

Material assumptions for the Life and health business (excluding longevity business)

Business is written all over the world with a wide range of different policy types, tariffs and mortality / morbidity tables.

For treaties projected individually, the calculation of the BEL is initially based on weighted model points (or even on policy data). The assumptions are monitored when the accounts from the cedants are booked and are in turn adjusted, if necessary. The base mortality / morbidity table is usually the original one used in pricing. Also here, adjustments are made in case that the actual figures materially differ from the expectation, or if other relevant information becomes available.

For the majority of the business in the US and UK market, specific mortality and morbidity assumptions are derived from the Company's base standard tables and updated regularly.

In addition, there is a provision for the short-term impact of the Covid-19 pandemic on future claims.

Lapse rates are set from the original pricing basis of the treaty and adjusted for actual experience where credible data exists and for changes of the internal view of long-term lapse rates.

The reinsurance conditions of the treaty are reflected in the calculation of the BEL.

With the exception of mortality business in the North American markets and certain mortality and morbidity business in the UK market, no allowance for future mortality improvement is made.

A few smaller treaties are modelled in an aggregate manner using more general assumptions. Base mortality / morbidity tables are chosen in order to be appropriate for the market of the respective treaties.

The assumptions are monitored based on the booked results from the past and adjusted if necessary.

For a portion of the business expected claims are based on claims ratios. I.e. instead of using explicit mortality / morbidity and lapse rates, the claims are estimated via a certain proportion of the premium.

Generally, future management actions are only taken into account for the SCR calculation of certain American and Australian business. Therefore they affect only the RM via the SCR (determined with the internal model), but not the best estimate projections. There are some exceptions for our US business, most importantly, the US mortality business. A detailed future management action plan ("FMA Plan") has been implemented to address issues with parts of the US mortality portfolio. The expected cash flows from in-force management are reflected in the TP.

Material assumptions for the longevity business

The calculation of the BEL is based on policy data. Best estimate base mortality assumptions are set on a treaty level. Best estimate mortality improvement assumptions are set either by treaty or by country.

The assumptions are monitored when the accounts from the cedants are booked and are in turn adjusted, if necessary, or if other information indicates a need for change. Furthermore, detailed mortality studies are carried out to allow for a comparison between expectation and experience and to adjust if necessary.

Assumptions changes in comparison to the previous reporting period

In the following material assumption changes in comparison to the previous reporting period are explained.

Adjustments to the morbidity assumptions for critical illness business of the Shanghai branch and Taiwanese disability business as well as adjusted lapse assumptions for certain life business of the UK and Malaysia branches led to an increase in BEL.

The mortality assumptions for a material life reinsurance treaty in the UK market were revised. This effect as well as adjustments of the assumptions in the course of introducing of a new calculation model for the Hong Kong branch caused a decrease in BEL.

Only small Covid-19 pandemic adjustments were necessary for life and longevity business in the UK market, which nearly cancel each other out.

Reinsurance recoverables

For all retrocessions to third party reinsurers where the recoverable represents an asset to Hannover Rück, a default adjustment according to their average rating was included.

In total, the reinsurance recoverables are negative (TEUR -218,900), i.e. it is to be seen as a liability for Hannover Rück and increases the net Solvency II reserves.

The respective statutory reinsurance recoverables amount to TEUR 616,071. Certain revaluation steps between HGB and Solvency II are provided in Section D.2.2.4. The remaining difference is caused by future payments to the retrocessionaires (from financing business or profitable ceded business).

D.2.2.3 Risk assessment

The main area of uncertainty around the level of the TP relates to a potential deviation of actual experience from the underlying assumptions and the sensitivity of cash flows to changes in those assumptions. The Risk Margin can serve as an indicator of such uncertainty.

The key driver to the overall level of uncertainty comes in the form of the longevity, morbidity and mortality business. This also becomes evident from the capital requirements under Solvency II presented in Section E.2.

The longevity business is also very dependent on the appropriateness of the underlying mortality tables and mortality improvement assumptions, in particular due to its long-term nature. While the premiums are known, the expected claim payments are very sensitive to the underlying mortality table, and more importantly in the later years, the mortality improvement that is applied to the underlying table. The underlying mortality assumptions are based on copious amounts of data and experience studies, both internally held and industry accepted. However, a certain level of judgment is involved in assessing the applicability of historical mortality improvement observations for forward-looking purposes. In general, changes in the interest rates have little impact as to the cash flows; however, they can have a material impact on the discounting of the cash flows.

Morbidity risks are another driver of uncertainty in the modelling of business. Relevant morbidity risks are stemming from potential changes of incidence rates for Asian critical illness business as well as from Australian and Taiwanese disability business.

For the mortality business small changes in the mortality rates can have significant effects on the claim payments. However, for a significant share of the portfolio, this risk is largely mitigated by profit commission arrangements or by limits regarding the retention of the cedant such that changes in mortality rates would change the underlying cash flow pattern but would have a limited impact on the associated BEL. The mortality rates are well grounded in available data. For longer tailed products, in particular in the US and UK market, mortality improvement and expert settings can also play an important role.

Significant mortality risk is stemming from US mortality business. The actual mortality experience for the portfolio in question was worse than expected in 2020 due to the Covid-19 pandemic. Experience continues to be monitored on an ongoing basis.

The valuation of this business reflects the expected cash flows from inforce management activity, most notably rate increases initiated in 2018 pursuant to our contractual rights. Uncertainty results since it is expected that some cedants will seek arbitration proceedings with respect to the implemented rate increases. Based on information currently available to us, we take a favorable view of our legal position.

Changes in lapse rates are material for certain products as well, with a varying level of confidence based on product design and the experience available. The directionality of the lapse effect is dependent on the treaty and type of reinsurance used. In aggregate, an increase in lapse rates would be more adverse in that Hannover Re Group would forgo positive expected future cash flows.

Pandemic risk is a tail risk, i.e. a risk with a low probability of occurrence but a potential high impact. Pandemic risk is one of the key drivers of capital requirements and is therefore allowed for in the Risk Margin.

The TP include adjustments for already incurred as well as expected future claims of the Covid-19 pandemic. Nevertheless, there is a certain risk of higher claims in the near future and an adverse

development in mortality and morbidity rates from long-term consequences for people suffering from Covid-19.

Financing business is generally not or only moderately exposed to mortality or morbidity risks and thus experiences a low level of uncertainty. Repayment of the outstanding financing amount can diminish on a combination of adverse biometric experience and lapses, but this is accounted for in the Risk Margin. Cedant default risk is also accounted for in the Risk Margin.

D.2.2.4 Comparison of the technical provision with the HGB liability

In the following, a reconciliation between HGB liability and TP is provided. The reconciliation steps are explained below this table. The figures are net of reinsurance recoverables.

Reconciliation from HGB to Solvency II
in TEUR

Reconciliation Step	Explanation	2020
(1)	**Technical HGB liability net of reinsurance**	**8,764,695**
(2)	Risk Margin	1,441,044
(3)	Deposit cash flows for very risk remote transactions are inlcluded in TP under Solvency II	−2,178,982
(4)	Further differences in methods / assumptions	−2,866,836
(5)	Netting of accounts payables and receivables	−424,471
(6)=(1)+...+(5)	**Solvency II TP net of reinsurance**	**4,735,450**

The sources of the differences in methods and assumptions are:

(4a) The calculation of the BEL includes all future cash flows. For profitable business, this means including future profits. In contrast, the HGB liability does not allow for future profits according to the realization principle in connection with the prudence principle.

(4b) For cash financing business, the repayment of the initial commission is included in the BEL, but not allowed to take into account for statutory valuation purposes.

(4c) The BEL reflects current best estimate assumptions (e.g., regarding mortality and lapse), whereas the statutory assumptions are based on the prudence principle.

(4d) The BEL (and the RM) are discounted with current risk free interest rates including the volatility adjustment, whereas the statutory liabilities are calculated using valuation interest rates.

(4e) For some treaties the Solvency II contract boundaries differ from the contract boundaries under statutory.

D.3 Other Liabilities

D.3.1 Contingent liabilities R0740

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Contingent liabilities	1,777	

A contingent liability is a possible obligation arising from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events. Obligations are to be reported as contingent liabilities if the probability of occurrence is less than 50% (IAS 37).

Contingent liabilities in Solvency II balance sheet are recognised according to criteria set out in Art. 11 of Delegated Regulation (EU) 2015/35. Accordingly, material contingent liabilities are to be reported if the information could influence the decision-making or judgement of the intended user of that information.

Pursuant to Section 251 and Section 268 Para 7 of the HGB, contingent liabilities have to be reported in the notes of the balance sheet.

Under Solvency II legislation, an expectancy value is recognized. This results in a difference of TEUR 1,777.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Contingent liabilities	1,777	1,777

In comparison to the previous year, assumptions regarding the calculation of this balance sheet item remained unchanged.

D.3.2 Provisions other than technical provisions R0750

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Provisions other than technical provisions	108,349	147,921

The following items are listed in the Solvency II balance sheet under non-technical provisions:

- Provisions for outstanding remuneration payments
- Provision for interest pursuant to § 233a AO (Fiscal Code)
- Provision for loss transfer
- Provisions for annual accounts costs
- Provisions for suppliers' invoices
- Provisions for costs of legal action
- Provision for partial retirement.

In the Solvency II balance sheet, the fair value calculated pursuant to the regulations stipulated by IAS 37 is applied.

In accordance with commercial law, other provisions are formed according to the necessary settlement value dictated by sound business judgement.

The difference in the Solvency II balance sheet and in the annual accounts pursuant to commercial law to the amount of TEUR -39,572 is the result of differing valuation approaches and a different definition respectively.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Provisions other than technical provisions	108,349	120,670

In comparison to the previous year, assumptions regarding the calculation of this balance sheet item were the same.

D.3.3 Pension benefit obligations R0760

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Pension benefit obligations	165,291	113,737

In the Solvency II balance sheet, the valuation of pension payment obligations is made analogously to the valuation pursuant to IAS 19 “Employee Benefits” using the Projected Unit Credit Method, which is described in Section “D4. Alternative methods for valuation”.

The commitments to employees in Germany predominantly comprise benefit obligations financed by Hannover Rück. A large proportion of obligations are based on defined benefit obligations.

The provisions for pensions in Germany and abroad were calculated on the basis of uniform standards according to prevailing economic circumstances.

Pursuant to the HGB pension payment obligations are set in principle according to the necessary settlement value based on sound business judgement. They are discounted using the average interest rate of the previous ten years and with an assumed residual maturity of 15 years, as published by the German Central Bank (Deutsche Bundesbank) pursuant to the Regulation on the Discounting of Provisions (RückAbzinsVO). The pension payment obligations are calculated using the Projected Unit Credit Method. The salary trend, pension trend and performance adjustment due to profit participation by reinsurers are taken into account. Probabilities of fluctuation are calculated separately depending on age and gender.

With employee-financed pension commitments, the amount of which is defined exclusively by the fair value of the receivables reinsurance cover (financed by employer) a valuation is made pursuant to Section 253 Par 1 Sentence 3 of the HGB. For these commitments, the settlement value corresponds to the fair value of the actuarial reserve plus profit participation.

The difference between the valuation bases found in the Solvency II balance sheet and in the annual accounts according to commercial law totalling TEUR 51,554 is particularly attributable to the different interest rates applied for discounting.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Pension benefit obligations	165,291	145,397

In comparison to the previous year, assumptions regarding the calculation of this balance sheet item remained unchanged.

D.3.4 Deposits from reinsurers R0770

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Deposits from reinsurers	3,281,818	3,332,731

The deposits from reinsurers are determined analogously to the deposits to cedents. The respective methodology is described in section “Deposits to Cedents R0350”.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Deposits from reinsurers	3,281,818	3,141,498

Changes in the amount of deposits from reinsurers under Solvency II are due to changes in exchange rates and in the underlying business.

D.3.5 Deferred tax liabilities R0780

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Deferred tax liabilities	2,395,992	

The calculation of deferred taxes under Solvency II is carried out in accordance with Art. 15 of the Delegated Regulation. Deferred taxes are recognized and measured for all assets and liabilities, including technical provisions.

In the Solvency II balance sheet, a deferred tax asset totalling TEUR 251,215 is stated as well as a deferred tax liability to the amount of TEUR 2,395,992. This subsequently leads to a liability surplus, of which the calculation in principle is executed in two steps.

The first step involves the calculation of deferred taxes on the basis of valuation differences between the IFRS balance sheet and the tax balance sheet, within the scope of generating the IFRS balance sheet for the consolidated financial statement of the Hannover Re Group. Here, deferred tax assets or liabilities are recognised pursuant to IAS 12 (Income taxes) as well as on an intra-year basis pursuant to IAS 34 (Interim financial reporting). Deferred tax assets or liabilities are generated, insofar as asset or liability items in the IFRS balance sheet are to be recognised at lower or higher amounts than those in the tax balance sheet, and that these differences will invert in future (temporary differences). Temporary differences principally result from valuation differences between a tax balance

sheet generated in line with national standards, and both the IFRS balance sheet and consolidation procedures.

Deferred tax assets are also calculated based on tax loss carry forwards and tax credits. Insofar as the deferred taxes relate to items, which are recognised directly in shareholders' equity, the resulting deferred taxes are also directly recognised in shareholders' equity. Value adjustments are made in relation to deferred tax assets as soon as the realisation of the deferred tax assets appears to be no longer probable in future. Deferred taxes are valued using the ratified rates of tax in the respective country, which apply and / or have been decreed as at the reporting due date.

The second step involves the calculation of deferred taxes on the basis of valuation differences between the Solvency II balance sheet and the IFRS balance sheet. According to Guideline 9 of the EIOPA guidelines, no discounting is applied in the valuation of deferred taxes in the Solvency II balance sheet.

The result of these two steps is the generation of deferred taxes on the basis of valuation differences between the tax balance sheet and the Solvency II balance sheet.

With existing differences between the commercial and tax valuation for assets, liabilities and deferred / prepaid items, which are projected to invert in subsequent financial years, this can on-balance result in a tax relief being stated as a deferred tax asset, or a tax burden being stated as a mandatory deferred tax liability in the trade balance.

In the annual accounts of Hannover Rück, in line with the commercial code, no deferred tax liabilities are stated due to the fact that, on balance, an asset surplus exists and the right to capitalisation is not exercised.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Deferred tax liabilities	2,395,992	2,315,659

The development of deferred tax liabilities is mainly attributable to changes in underwriting balance sheet items and capital investments. For more detailed explanatory notes please consult the respective sections.

D.3.6 Derivatives R0790

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Derivatives	47,949	

Derivative assets (R0190) and Derivative liabilities (R0790) are stated in the Solvency II balance sheet as separate items, unoffset at their market value. The market value of derivatives primarily corresponds with the stock exchange rate. If no stock exchange rates are available, derivatives are valued on the basis of parameters derived from observed market data (e.g. interest and spread curves, volatilities, spot and forward rates) within the applied framework of suitable valuation models and methods.

In annual accounts pursuant to HGB the valuation of financial derivatives and derivatives on biometric indices is done on a fair value basis. Derivatives which are part of an insurance contract are valued as part of technical liabilities, and are not stated separately.

Hannover Rück concludes central hedging transactions with third parties for some of its subsidiaries. The valuation of these financial derivatives is carried out at fair value. Hannover Rück transfers the cost of these hedging transactions internally to these subsidiaries, so that in their Solvency II balance sheet, derivative liabilities in amount of TEUR 47,949 as at the balance sheet date.

Pursuant to the HGB the company had summarised, as at the reporting date, reciprocal forward foreign-exchange contracts into valuation units with offsetting effect under the application of the net hedge presentation method. The application of the net hedge presentation method means that changes in the value of the underlying and hedging transactions are offset and are neither stated in the balance sheet nor in the profit and loss statement, insofar as the occurrence of risks is excluded and the positive and negative changes in value of the underlying and hedging transactions are nearly equalised. Thus, TEUR 47,949 of the difference in valuation are traced back to the different reporting of the hedging transactions under Solvency II and the HGB.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Derivatives	47,949	17,477

In comparison to the previous year, the assumptions regarding the calculation of this balance sheet item did not change.

D.3.7 Financial liabilities other than debts owed to credit institutions R0810

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Financial liabilities other than debts owed to credit institutions	1,260,484	1,168,031

Liabilities are valued using the expected present value of future cash flows pursuant to Solvency II. For reasons of materiality, no discounting is applied.

Liabilities are recognised at their fulfilment amounts in line with commercial law.

The difference between the items in the Solvency II balance sheet and in the annual accounts pursuant to commercial law is in total TEUR 92,453. Of this amount, TEUR 79,569 relate to valuation differences of a senior bond issued in the financial year 2018. The bond was issued by Hannover Rück with a total notional amount of TEUR 750,000. The remaining amount of TEUR 12,884 relates to valuation differences of loans with Group companies as well as recognition differences of lease liabilities. The reason for the difference in lease liabilities is that these are not shown in the balance sheet under the HGB.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Financial liabilities other than debts owed to credit institutions	1,260,484	1,389,468

The decrease in the value in the year under review is TEUR 128,984 and results predominantly from a decrease in loans with Group companies.

In comparison to the previous year, the remaining assumptions regarding the calculation of this balance sheet item did not change.

D.3.8 Insurance & intermediaries payable R0820

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Insurance & intermediaries payables	686,702	

EIOPA differentiates between payables as follows:

- payables to insurance companies and intermediaries: Amounts due from insurance policyholders, other insurance companies or insurance-related companies, which have not been accounted for in the cash flow of technical provisions from reinsurance, in particular payments which are overdue
- payables to reinsurers: Amounts due from reinsurers or reinsurance-related companies, which are not registered in the underwriting provisions / demandable amounts from reinsurance.

Liabilities are to be valued using the expected present value of future cash flows pursuant to Solvency II. For reasons of materiality, no discounting is applied. Liabilities are recognised at their fulfilment amounts in line with commercial law.

Pursuant to the HGB and / or the Insurance Accounting Decree (RechVersV) no differentiation is made between active reinsurance and retrocession for accounts receivable / payable. The HGB values of the payables are summed under the item “Reinsurance payables R0830”. For this reason, the differences in valuation for both items are described jointly in the explanations for R0830.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Insurance & intermediaries payables	686,702	452,982

Compared to the previous period, the assumptions regarding the calculation of this item did not change.

D.3.9 Reinsurance payables R0830

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Reinsurance payables	196,677	1,262,558

Liabilities are to be valued using the expected present value of future cash flows pursuant to Solvency II. The predominant part of the payables to reinsurers is not discounted for reasons of materiality.

Liabilities are recognised at their fulfilment amounts in line with the commercial code.

The differences in valuation of items R0820 and R0830 are therefore taken together and amount to TEUR -379,179.

They result from the fact that only the part of the receivables, that was due before the balance sheet date, is considered here.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Reinsurance payables	196,677	415,965

From Closing 2019 on, only the current balances due are included in the respective positions, non-current future balances are part of the contractual cash flows shown within the best estimate of the technical provisions or reinsurance recoverables.

Compared to the previous period, the assumptions regarding the calculation of this item did not change.

D.3.10 Payables (trade, not insurance) R0840

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Payables (trade, not insurance)	97,202	107,218

Liabilities are to be valued using the expected present value of future cash flows pursuant to Solvency II. For reasons of materiality no discounting is applied.

Liabilities are recognised at their fulfilment amounts in line with the commercial code.

The difference of TEUR -10,017 between the items in the solvency statement and the financial statements prepared in accordance with HGB results from reclassifications.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Payables (trade, not insurance)	97,202	127,321

In comparison to the previous year, the assumptions regarding the calculation of this balance sheet item did not change.

The decrease in the year under review is mainly due to a reduction in income tax liabilities of TEUR 23,872. In addition, other tax liabilities were slightly lower.

D.3.11 Subordinated liabilities R0850

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Subordinated liabilities	2,381,960	2,250,000

Subordinated loans can be classified under Solvency II as subordinated own funds, which belong to basic own funds. Subordinated loans represent financial contractual obligations, which are subordinate to all other loan payables and obligations. The creditors have subordinated rights in comparison to all other debt capital providers. In particular in the event of insolvency, the subordinated capital possesses subordinated claims vis-à-vis other debt capital.

The economic valuation for the Solvency II balance sheet can be derived from the fair value approach pursuant to IAS 39; here, adjustments due to changes in the company's own creditworthiness are not accounted for in Solvency II.

An overview of the individual components of the subordinated loans under Solvency II is represented in Section "E.1.3.5 Subordinated own funds".

Payables – including those which are subordinate – are to be recognised pursuant to Solvency II at the expected present value of future cash flows; they are principally subject to discounting. Pursuant to commercial law, payables are recognised at their fulfilment amounts and are not discounted. This results in a difference between the items in the Solvency II balance sheet and in the annual accounts pursuant to commercial law to the amount of TEUR 131,960.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Subordinated liabilities	2,381,960	2,376,550

In the reporting period, Hannover Rück issued subordinated debt in the amount of TEUR 500,000. A subordinated loan in the amount of TEUR 500,000 was repaid. The development compared with the previous year is based on differences in the maturities of the aforementioned financial instruments culminating in different present values. General interest rate volatility also led to a change in the portfolio value.

The underlying valuation method did not change compared to the previous year.

D.3.12 Any other liabilities, not elsewhere shown R0880

Difference in valuation

Values as of 31.12.2020 in TEUR	Solvency II	HGB
Any other liabilities, not elsewhere shown	54,090	45,615

Liabilities are to be valued using the expected present value of future cash flows pursuant to Solvency II. For reasons of materiality, no discounting is applied.

Liabilities are recognised at their fulfilment amounts in line with the commercial code.

The difference between the items in the Solvency II balance sheet and in the annual accounts pursuant to commercial law to the amount of TEUR 8,475 is the result of reclassifications.

Comparison to prior year

in TEUR	Solvency II 2020	Solvency II 2019
Any other liabilities, not elsewhere shown	54,090	83,625

In comparison to the previous year, the assumptions regarding the calculation of this balance sheet item did not change.

In the year under review, the development of this balance sheet item is based on the recognition of securities lending except for liabilities to tax authorities. Those are included in the balance sheet item “Payables, (trade, not insurance)”.

D.4 Alternative methods for valuation

Valuation principles are applied pursuant to Solvency II. In addition to the general valuation principles the following valuation hierarchy is applied to the recognition and valuation of assets and other liabilities.

1. Stock exchange prices observed on active markets are utilised as part of the standard valuation method. The use of stock exchange prices should be based on the criteria stipulated for an active market, which are defined in the International Accounting Standards (IAS).

2. If no stock exchange prices in active markets are available for the assets and liabilities to be valued, stock exchange prices from similar assets and liabilities are used. Adjustments are made in order to reflect the differences.

3. In instances where the criteria for the use of stock exchange prices are not fulfilled, alternative valuation methods are utilised (different methods to those described in number 2). If alternative valuation methods are used these should be – to the greatest extent possible – based on market data, and should contain – to the least extent possible – company-specific influencing factors.

Hannover Rück uses alternative valuation methods for some balance sheet items, which are subsequently described in more detail:

D.4.1 Gross Rental Method

The gross rental method is applied above all to developed real estate, the ownership of which serves to generate a sustainable income stream, i.e. above and beyond the residual useful life. The gross rental method concerns an indirect sales comparison approach due to the use of the property rate derived from comparative purchase prices.

D.4.2 Projected Unit Credit Method

This method is applied for calculating pension payment obligations. It is calculated according to actuarial principles and is based on the commitments made by Hannover Rück to retirement, invalid and widowed pensions. The commitments are aligned with the duration of company tenure and the level of salary. This exclusively concerns performance-related pension plans (Defined Benefit Plans). The basis of the valuation is the estimated future salary development of those eligible for a pension. The discounting of benefit entitlements is made by applying the capital market interest rate for the highest rated securities. So-called planned assets do not exist.

D.4.3 Market value determination for assets which are not listed on a stock exchange

For the calculation of market values for assets which are not listed on a stock exchange, or whose relevant markets are deemed to be inactive at the point in time of valuation (please also refer to Section D “Assessment of active markets”), we use the following valuation models and methods as an alternative. They represent the standard and recognised methods used for the respective assets, and are used in order to be able to determine a market price in spite of the absence of available valuations from active markets.

Financial instruments	Parameters	Valuation models / methods
Unlisted plain-vanilla bonds, interest rate swaps	Interest rate curves	Present value method
Unlisted, structured bonds	Interest rate curve, volatility surfaces	Hull-White, Black-Karasinski, Libor Market Model among others
Unlisted ABS/MBS, CDO/CLO	Risk premiums, default rates, prepayment speed and recovery rates	Present value method
Unlisted equities and participations	Acquisition costs, cash flows, EBIT multiples, book value as applicable	Capitalised earnings method, discounted cash flow method, multiples-based approaches
Private equity funds, Private equity real estate funds	Audited net asset values (NAV)	Net asset value method
Unlisted fixed income, equity and real estate funds	Audited net asset values (NAV)	Net asset value method
Currency forwards and swaps	Interest rate curves, spot and forward rates	Interest rate parity model
OTC stock options, OTC stock index options	Quoted price of the underlying stock, implicit volatility, money market yields, dividend yield	Black-Scholes model
Insurance derivatives	Market values, actuarial parameters, interest rate curve	Present value method
Total Return Swaps, Equity Swaps	Quotation underlying, interest rate curve	Present value method

The major proportion of inventories valued using alternative valuation methods is valued on the basis of the present value method. This is a predominantly assumption-free method, with which the future cash flows of securities are discounted with the use of suitable interest rate curves. These curves are derived from appropriate market data observed on publicly accessible markets. Broadly speaking, this procedure is premised on the assumption generally accepted in the market that price differences for comparable securities listed in transparent markets with regard to risk, term and creditworthiness are predominantly the result of issuance-specific characteristics and lower liquidity, and are thus deemed immaterial with regard to their influence on market value.

Specific assumptions are made in the valuation of CLOs. They relate to prepayment rates and retrieval rates. The prepayment rate describes the scope available for the instrument to repay to the bearer parts of the outstanding nominal amount before maturity. The retrieval rate is the proportion of the nominal amount repaid to the bearer subsequent to proceedings triggered by a potential default. Both parameters are estimated with an industry-standard fixed value. They do, however, have a comparably limited influence on the valuation. The significant valuation parameters here are either directly observable market data, or are derived there from.

If particular structures are embedded into the security such as, for example, termination rights, further valuation models are also utilised such as, for example, the Hull-White Model or the Libor Market Model. The models calculate, for example, the probability of termination rights being exercised with the help of swaption volatilities. No noteworthy assumptions are utilised here either.

The use of models includes different model risks, which can lead to a degree of valuation uncertainty:

- Modelling risk (appropriateness and suitability of the model)
- Data quality risk (incomplete or obsolete data for the model calibration or parameterisation)
- Risk pertaining to the validity of assumptions and estimations.
- Risks in the model implementation

Through a process of regular validation in which a systematic, quantitative and qualitative assessment of the appropriateness of valuation models and methods is undertaken, model risks can be limited. Furthermore, the model results (for items which are predominantly valued using alternative valuation methods) are continuously subject to plausibility checks as part of daily quality assurance processes.

D.5 Any other information

Other information which has a significant influence on the valuation for solvency purposes are contingent liabilities and other financial obligations with a residual term longer than five years.

Hannover Rück placed one subordinated bond in the European capital market via its subsidiary Hannover Finance (Luxembourg) S.A. The bond from year 2012 has a nominal volume of TEUR 500,000, which benefits of a guarantee on a subordinated basis of Hannover Rück.

Hannover Rück uses pledges for the purposes of collateralising its underwriting obligations against cedants in the form of letters of credit (LoCs), which have been issued by various banks. The overall volume amounts to TEUR 2,200,108. The letters of credit concluded by Hannover Rück protect both Hannover Rück directly and also its subsidiaries.

Hannover Rück is obligated under certain circumstances to defend and uphold the rights and obligations of its subsidiaries against third parties, due to novation clauses in reinsurance contracts. The subsidiaries have formed reserves totalling TEUR 5,287,947. During the financial year, the issuance of letters of comfort was waived.

Hannover Rück has submitted guarantees for affiliate companies against third parties totalling TUSD 6,089,102. Additionally guarantees are submitted totalling TGBP 10,000. The term of guarantees is determined by the secured obligations held by affiliate companies. Hannover Rück receives guarantee commissions for this. Furthermore, financial obligations against affiliate companies exist amounting to TUSD 250,000 in total and payment obligations against subsidiaries in South Africa resulting from written primary insurance and reinsurance business as well as a contingent liability to our Australian subsidiary in connection with a financing instrument totalling TAUD 50,000.

Hannover Rück receives collateral from its retrocessionaires for the safeguarding of receivables from retroceded business. The provision of collateral by the retrocessionaires takes places in the form of letters of credit (LoCs) and deposits among other forms. For the majority of our retrocessionaires we also function as reinsurer, meaning that in most cases recoverables can potentially be set off against our own liabilities.

Hannover Rück has residual payment obligations totalling TEUR 292,096 for special investments and shares in affiliate companies. Furthermore, there is a long-term compensation obligation of TEUR 6,350 to HDI Unterstützungskasse.

E. Capital Management

This section presents the main elements of Hannover Rück's capital management.

E.1 Own Funds

E.1.1 Management of own funds

Hannover Rück aims to maintain a capitalisation of at least 180% under Solvency II. In addition, a threshold of 200% is defined. Own funds are managed in such a way that the minimum capitalisation is not undercut in the planning. This is achieved through coordinated planning and management of all own funds components, dividend payments and the risk profile.

The capital management process comprises a classification of all own funds components with regard to the Solvency II tiering specifications, with regard to basic and ancillary own funds and an assessment of the availability of the different own funds components.

In general, it is our objective that our hybrid capital instruments correspond with tier 2 category requirements. The timing of each issue takes into account the current market conditions and our medium-term growth objectives. In case of a required replacement of a subordinated bond, the detailed replacement planning process normally begins a year before the regular call date.

Hannover Rück’s economic capital model is used for the evaluation of both the quantitatively measurable individual risks and also the overall risk position. The assumptions and calculation methods for the determination of the risk-bearing capacity of the company are recorded in the documentation of the risk model and in regular reports.

E.1.2 Tiering

The classification of own funds with regard to their ability to cover losses represents a central component of regulatory capital requirements pursuant to Solvency II. The individual components of the own funds will be classified into one of three quality classes (“tiers”).

Own fund items classified under tier 1 possess the highest degree of quality, due to the fact that they are permanently available. They equalise verifiably unexpected losses, both during ongoing business operations and in the event of a company liquidation. Tier 2 refers to basic own funds items and ancillary own funds items which possess the ability to equalise losses incurred in the event of a company liquidation. Own fund items, which are not categorised under tier 1 or tier 2, are categorised under tier 3. Tier 3 capital comprises deferred tax assets in accordance with Art. 76 of Delegate Regulation 2015/35. Deferred tax assets and liabilities against territorial authorities are offset and, in the case of a net receivable, reported as an own funds item.

E.1.3 Basic own funds

The following table displays the composition of basic own funds held by Hannover Rück as of 31. December 2020.

Structure of basic own funds

in TEUR	2020	2019
Tier 1 unrestricted	11,857,483	11,812,933
Ordinary share capital	120,597	120,597
Share premium account	880,608	880,608
Reconciliation reserve	10,856,278	10,811,728
Tier 1 restricted	548,243	546,522
Subordinated own funds	548,243	546,522
Tier 2	1,833,717	1,830,027
Subordinated own funds	1,833,717	1,830,027
Tier 3	29,549	19,643
An amount equal to the value of net deferred tax assets	29,549	19,643
Total	**14,268,992**	**14,209,126**

The individual quality classes are subject to legal limitations in their ability to absorb losses. Against this background, available basic own funds items cannot completely be used to cover Hannover Rück's overall risk position. The proportion of basic own funds that can be called upon to cover the overall risk position pursuant to the SCR and MCR is designated as eligible own funds in the following section.

The change in basic own funds compared to previous year is a result of an slightly increasing reconciliation reserve and valuation changes in the reported subordinated capital, which is attributable among other things to the issue and repurchase of one subordinated corporate bond. There was also an increase in deferred tax assets.

The reconciliation reserve results from a change in excess of assets over liabilities and – compared to the previous year – change in foreseeable dividend. All changes in individual balance sheet items are explained in Section D and together result in a change of excess of assets over liabilities.

Available and eligible own funds

in TEUR	2020	2019
Total available own funds	14,268,992	14,209,126
Total eligible own funds to meet SCR	14,268,992	14,209,126
Total eligible own funds to meet MCR	12,941,142	12,854,964

Based on the regulations on minimum capital requirement (MCR) with respect to quality requirements regarding loss-bearing capability of own funds, the available tier 2 own funds are taken into account according in proportion to the respective own funds component. Tier 3 basic own funds cannot be used to cover the minimum capital requirement.

E.1.3.1 Reconciliation from HGB shareholders' capital to Solvency II own funds

The transition from HGB shareholders' capital to Solvency II own funds is presented in the table below.

Transition of HGB shareholders' capital to Solvency II own funds

in TEUR	2020	2019
Shareholders' capital (HGB)	4,981,716	5,258,716
Dividend	−542,687	−663,284
Differences in values and valuations Solvency II to HGB:	11,974,740	11,799,731
Equalisation reserve	3,771,372	3,077,368
Deferred acquisition costs and other intangible assets	−61,439	−61,751
Land, buildings and equipment	33,940	32,214
Shares / investments in affiliates and participations	3,189,109	3,149,909
Fixed-interest securities and other investments	1,613,788	1,172,912
Assets and liabilities from reinsurance business	3,569,388	4,526,710
Miscellaneous non-technical assets and liabilities	−141,419	−97,631
Deferred taxes on tax differences between Solvency II and HGB	−2,144,777	−2,186,037
Available own funds (Solvency II)	**14,268,992**	**14,209,126**

E.1.3.2 Ordinary share capital

Ordinary capital of Hannover Rück stands at TEUR 120,597 at date of balance. The shares have been paid up in full. The share capital is divided into 120,597,134 no-par value registered shares which carry both voting and dividend rights. Every share grants the same right to vote and same dividend entitlement. As at the balance sheet date no treasury shares were held by the company.

During the reporting period, no new shares were issued.

The share capital paid in and the corresponding share premium in the capital reserve form the own funds bearing the highest degree of quality, which can be relied upon to equalise losses in the course of business operations.

E.1.3.3 Share premium account

The share premium in relation to the share capital of Hannover Rück stands at TEUR 880,608 at date of balance.

The capital reserve is a separate item to which premiums, the amount between the value attained at the point in time of issuance and the value recorded in the share capital, are transferred in accordance with national statutory provisions.

E.1.3.4 Reconciliation reserve

The reconciliation reserve pursuant to Solvency II represents an item of basic own funds attributable (in unlimited capacity) to category tier 1. It primarily comprises the excess of assets over liabilities, adjusted by the ordinary capital, the share premium and shareholder dividend payouts.

At the balance sheet date, the reconciliation reserve was TEUR 10,856,278. The reconciliation increased by TEUR 44,550 during the reporting period.

The reconciliation reserve represents reserves (in particular retained earnings) less value adjustments (e.g. ring-fenced funds); it does, moreover, harmonise the differences between the accounting valuation pursuant to the HGB and the valuation pursuant to the Directive 2009/138/EC.

E.1.3.5 Subordinated liabilities

Hannover Rück held three subordinated bonds and one subordinated loan in its portfolio at the balance sheet date, which fulfil the criteria stipulated under Solvency II pertaining to subordinated liabilities, and which thus can be categorised under basic own funds.

Subordinated liabilities

in TEUR	2020	2019
Subordinated debt	1,823,465	1,279,030
Subordinated loans	558,495	1,097,520
Total	**2,381,960**	**2,376,550**

In the reporting period, a new subordinated bond was issued. The issue took place on 8 July 2020. The nominal value is TEUR 500,000 and the bond is classified as tier 2.

Furthermore, a subordinated loan with a nominal value of TEUR 500,000 was repaid in the reporting period. The liability was settled on 11 September 2020. The subordinated loan was classified as tier 2.

In addition, further subordinated liabilities with equity character exist as of the reporting date:

On 9 October 2019 Hannover Rück raised a subordinated bond with a nominal value of TEUR 750,000 from capital markets. The bond issued is classified as tier 2.

On 15 September 2014 Hannover Rück raised a subordinated bond with a nominal value of TEUR 500,000 from capital markets. This debt is classified under Solvency II as “Grandfathered restricted tier 1” own funds for a transitional period of a maximum of 10 years.

Hannover Finance (Luxembourg) S.A. raised a subordinated loan with a nominal value of TEUR 500,000 from capital markets in 2012 and subsequently granted a loan to Hannover Rück. The loan is classified under Solvency II as (grandfathered) tier 2 own funds of Hannover Rück.

On the basis of their tiering classes, the value of the subordinated debt can be fully used to cover the Solvency Capital Requirement when applying the limit on eligible own funds in accordance with Article 82 Delegated Regulation 2015/35.

E.1.3.6 An amount equal to the value of net deferred tax assets

Please refer to Section D.3 under item “Deferred tax liabilities R0780” for a detailed description of the origination of deferred tax assets and liabilities.

For the determination of own funds in accordance with Solvency II, offsetting must be performed. The netting is carried out at the level of individual taxable entities. Different types of tax types are offset against each other. Net deferred tax assets arise if the deferred tax assets exceed the deferred tax liabilities for each taxable entity.

As at the balance sheet date, the accumulated net deferred tax assets amount to TEUR 29.549. These are directed against the tax authorities of Canada, the United Kingdom and the Republic of India. Net deferred tax assets increased by TEUR 9,906 during the reporting period.

In order to recognize the amount of net deferred tax assets as basic own funds item, there must be an intention – in every future period in which the discharge or realisation of substantial amounts of deferred tax liabilities /deferred tax assets is to be expected – either to bring about the settlement of the actual taxes owing and refund claims on a net basis or to discharge the liabilities at the same time as the claims are realised.

For the recognized net deferred tax assets, there are corresponding profit expectations in an appropriate amount for each taxable entity. As a consequence, the amount can be recognized in full as a Tier 3 basic own fund item.

The value of net deferred tax assets can be used in full to cover the Solvency Capital Requirement by applying the limit on eligible own funds pursuant to Article 82 Delegated Regulation 2015/35.

E.1.4 Transferability

In the period under consideration, no issues were identified that restrict the transferability of the capital for the covering of the solvency capital requirements.

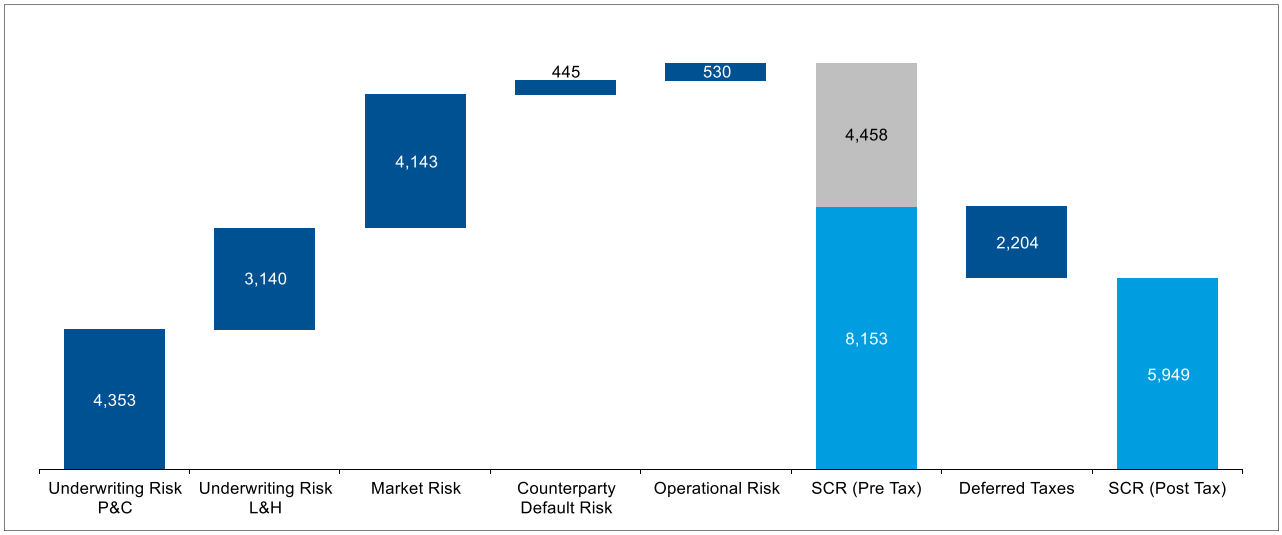
E.2 Solvency Capital Requirement and Minimum Capital Requirement

E.2.1 Solvency Capital Requirement per Risk Category

This section deals with the Solvency Capital Requirement and its sources. The risk categories of the internal model of Hannover Rück are defined in Section E.4.1.4. Capital requirements per risk category are shown in the following.

Hannover Rück is the legal entity heading Hannover Re Group. It holds a number of participations which are included into management applications in a look-through manner, i.e. based on the underlying risk and return profile. Look-through means that the underlying risks are analysed instead of purely looking at the change of the value of the participations. In particular, participations are not analysed as strategic equity investments – as e.g. per Solvency II standard formula.

Solvency Capital Requirement – per risk category
in EUR million



Solvency Capital Requirement (SCR)
in TEUR

Solvency Capital Requirement	2020	2019
Underwriting risk - Property & Casualty	4,352,598	4,221,301
Underwriting risk - Life & Health	3,139,919	2,732,988
Market risk	4,143,238	3,943,049
Counterparty default risk	445,380	419,990
Operational risk	529,608	520,355
Diversification	**−4,457,794**	**−4,235,781**
Total risk (pre-tax)	**8,152,948**	**7,601,902**
Deferred tax	2,203,876	2,096,250
Total risk (post-tax)	**5,949,073**	**5,505,652**

The required capital has been calculated based on the approved internal model. Since year-end 2018, Hannover Rück applies the volatility adjustment according to § 82 VAG. This is intended to mitigate the effect of value fluctuations on the bond market. For year-end 2019, Hannover Rück has received the approval from BaFin for a dynamic modelling of the volatility adjustment. By this the effect of the volatility adjustment is captured in the calculation of the required capital more adequately.

The model is subject to strict internal quality checks and extensive validation. Moreover, the continuous model supervision has not revealed any material limitations in the determination of capital requirements so far. In particular, there are no capital add-ons imposed by the regulator.

Overall, the required capital increased in the course of the year. This was principally driven by the larger business volumes, which have led to an increase in underwriting risks and market risks. The lower level of interest rates also contributes to the increase.

The increase in market risk mainly reflects the larger volume in the private equity sector, but also the slightly higher share in equity. Further factors here are the increased spread volatility throughout the year, as well as the larger volumes of fixed-income securities as a result of falling interest rates.

The underwriting risks in Property & Casualty reinsurance increased primarily as a consequence of higher premium and reserve volumes. The larger volumes are the result of business growth, the large loss expenditure (especially in connection with the Covid-19 pandemic) and accompanying higher reserves as well as the lower interest rate level.

The underwriting risks in Life & Health reinsurance increased primarily as a result of the business growth in the area of longevity and morbidity risks as well as due to lower interest rates.

The increase in counterparty default risks can be attributed to a higher volume of receivables due from ceding companies.

The changes in operational risks are above all driven by an updated expert assessment regarding the impact of individual scenarios.

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

For calculation of the loss-absorbing capacity of deferred taxes, the build-up of deferred tax assets is restricted by the amount of net deferred tax liabilities according to the IFRS balance sheet as well future tax liabilities stemming from future profits. The net deferred tax liabilities under IFRS basically stem from temporary valuation differences between the tax balance sheet and the IFRS balance sheet. Taxable future profits are derived from the planned IFRS net income for the next financial year and projected to a time horizon, which corresponds to the average duration of liabilities.

The following table displays the Solvency Capital Requirement and the ratio of eligible own funds to SCR taking into account tiering restrictions.

Ratio of eligible own funds to Solvency Capital Requirement

in TEUR	2020	2019
Eligible own funds	14,268,992	14,209,126
SCR	5,949,073	5,505,652
Ratio of eligible own funds to SCR	**240%**	**258%**

E.2.2 Minimum Capital Requirement

The following table displays the Minimum Capital Requirement and the ratio of eligible own funds to MCR taking into account tiering restrictions.

Ratio of eligible own funds to Minimum Capital Requirement

in TEUR	2020	2019
Eligible own funds	12,941,142	12,854,964
MCR	2,677,083	2,477,543
Ratio of eligible own funds to MCR	**483%**	**519%**

The MCR increases due to the higher SCR (reasons are given above). In case of Hannover Rück, the MCR is capped at the upper limit of 45% of SCR. Both indicators develop uniformly at this limit.

E.3 Use of the duration-based equity risk sub-module in the calculation of the Solvency Capital Requirement

Germany did not make use of the option to allow the use of a duration-based equity risk sub-module.

Consequently, Hannover Rück does not use a duration-based equity risk sub-module in the calculation of the Solvency Capital Requirement.

E.4 Differences between the standard formula and any internal model used

E.4.1 The internal model

Hannover Re received approval from the regulatory authorities to calculate its solvency requirements using a full internal capital model. This section provides information regarding the internal capital model.

E.4.1.1 Introduction

The quantitative risk management of Hannover Rück provides a standardised framework for the assessment and management of all risks the undertaking is exposed to and of our capital position. In this context, the internal model is our key instrument. It is a stochastic enterprise model, covering all subsidiaries and business areas of Hannover Rück.

The central key figure in risk and company management is the economic capital, which is evaluated according to market-consistent valuation principles and forms the basis for the calculation of the Solvency II capital.

The internal model of Hannover Rück reflects all risks influencing the development of the economic capital. These risks are classified into underwriting, market, counterparty default and operational risks. For each of these risk categories, we have determined a series of risk factors for which we define a probability distribution. Risk factors are, as for instance, economic indicators, like interest rates, exchange rates and inflation rates, as well as insurance-specific indicators such as the mortality rates in a specific age group of our insurance portfolio in a certain country, or the number of natural disasters in a certain region and the insured loss per disaster.

We use publicly accessible and historical data to specify the probability distributions of risk factors. In addition, we use industry specific and internal (re-)insurance data of Hannover Rück. The judgement of internal and external experts supplements this process. The suitability of probability distributions is subject to regular review by our specialist departments and verified in conjunction with the regular company-wide application of the capital model and allocation of costs of capital. Hannover Rück calculates the required capital using the Value at Risk (VaR) reflecting the changes in economic value over a period of one year with a confidence level of 99.97%. This is equivalent to the target to limit the ruin probability over a horizon of one year to 0.03%. The internal target capitalisation of Hannover Rück is significantly larger than that to a confidence level of 99.5% as required by Solvency II.

The internal capital model uses state-of-the-art techniques of insurance and financial mathematics. In case of underwriting risks, we draw on a comprehensive history of internal data to estimate probability distributions, e.g., for reserving risk. In the context of natural catastrophe risks, we use external

models that we adjusted in the course of detailed internal reviews to represent our risk profile adequately. For Life & Health reinsurance we determine long-term cash flows for different scenarios. The determination of scenarios and probability distributions is based on internal data for all mentioned risks. The internal data base is enriched with parameters set by experts. These parameters are of importance in particular in the area of extreme events that have not been observed by now.

The aggregation of single risks takes into account dependencies between risk factors. Dependencies arise, e.g., during financial crises, which affect several market segments at the same time. Furthermore, market phenomena such as pricing cycles can cause dependencies over time. We generally assume that extreme events do not all occur simultaneously. The absence of complete dependency is denoted as diversification. Hannover Rück's business model is based i.a. on establishing a preferably well-balanced portfolio such that a significant diversification effect is achieved and the capital can be used efficiently. Diversification effects exist between reinsurance contracts, divisions, business segments and risks. Given the capital needs of our business segments, divisions and on the basis of their contribution to the diversification effect, we determine the costs of capital that have to be achieved per single business unit.

E.4.1.2 Basic principles

A key purpose of the capital model of Hannover Rück relates to the calculation of the required and available capital for Hannover Rück. The principles outlined below are the manifestation of Hannover Rück's risk capacity and how it is consistently measured within a quantitative framework.

- Target variable: Our main target variable for the calculation of risk based capital is the deviation of the net asset value (or own funds) from its expected value.
- Time horizon: For calculating the required capital a one year time horizon is considered.
- Risk measure: We use two statistics to measure and allocate risk capital, namely the Value-at-Risk (VaR) and the Expected Shortfall (ES).
- Ongoing business operations: We operate on the premise of existing business and a going-concern assumption.
- New business assumptions: We consider one year of new business for all lines of business.
- Stochastic simulation: The capital model of Hannover Rück is based on stochastic simulations, i.e. we generate discrete approximations for the probability distribution of our target variables.
- Consolidation method: The capital model of Hannover Rück comprises all business units by using the consolidation method. Deduction and aggregation as defined under Solvency II as an alternative method is not applied.

The capital model uses a stochastic simulation model for the purposes of implementing these principles, which combines random variables using the company-specific dependency structure.

E.4.1.3 Main applications

Hannover Rück considers its internal capital model a key component of its enterprise risk management system to analyse its overall risk position, to quantify risks and to determine the economic capital required to meet those risks.

Main applications are:

- Analysis of the financial position
- Assessment of the overall required capital and monitoring of key risk metrics
- Capital consumption by each risk category
- Capital allocation for pricing and performance measurement
- Risk budgeting, limit allocation and monitoring
- Strategic asset allocation
- Assessment of risk mitigation strategies
- Assessment of new business

E.4.1.4 Scope of the model

Hannover Rück's risk landscape comprises the main risk categories underwriting risks (life and non-life), market risks, counterparty default risks, operational risks and other risks (see Section "C. Risk Profile").

The risk categories addressed by the internal model of Hannover Rück using a quantitative model are the categories underwriting risk life, underwriting risk non-life, market risk, counterparty default risk and operational risk. These risks and their interactions are accounted for in the presentation of target variables through the application of stochastic simulation models. Concentration risk is taken into account in the calculations of required capital for each risk category.

Hannover Rück is the legal entity heading Hannover Re Group. It holds a number of participations, which are included into management applications in a look-through manner, i.e. based on the underlying risk and return profile. Regarding the structure of Hannover Re Group see Section "A.1.4 Group structure".

E.4.2 Calculation techniques for the purposes of integrating results into the standard formula

Hannover Re uses a full internal model. In consequence, there are no results of standard formula modules, which have to be integrated in the internal model.

E.4.2.1 Type and suitability of data

Hannover Rück has a comprehensive internal control system in place to ensure quality and timeliness of data. The specific data used in the internal model is documented in the data requirements for the different modules and interfaces. All data used in the internal model is subject to the data standards for the internal model. This set-up is appropriate to provide for timely data that is free of material errors.

Hannover Rück utilises the relevant historical company data, in order to calibrate the model – above all for the underwriting risk. Generally speaking, company data relating to insurance performance within non-life is available for more than 30 years. This is deemed sufficiently historical information. However, due to the particular characteristics of early underwriting years, e.g. low premium volume, changing business segmentation or non-representative market segments, only portions of this data are used as part of the internal model calibration.

Internal company data, above all for the model validation, is used for underwriting risk pertaining to life and health insurance, due to the fact that only a limited number of significant (and thus rare) deviations are available that are suitable for the calibration of extreme events.

Long-term market data is used for the calibration of the market and counterparty risk model.

The operational risk model is based on information retrieved from a self-assessment process with experts from all relevant units and departments. Wherever possible available data and additional information are used. Given the limited history of operational risk events as well as the low frequency and high severity character of some operational risks, Hannover Rück is convinced that input parameters for the SCR calculation cannot be solely derived by quantitative methods.

In general, Hannover Rück relies on data that is used in other business applications, too, as often as appropriate to ensure consistent use of information within the company. Examples are the technical provisions, which are calculated as part of the Solvency II balance sheet process and data items used in the accounting process under IFRS, thereby providing an anchor to other established reporting processes. Thus, many data items are subject to multiple quality checks and internal as well as external review.

E.4.3 Comparison between the internal model and the standard formula

The standard formula is designed to fit a typical European (or EEA) primary insurer. As a consequence, mainly European data has been used to calibrate the standard formula.

There are many aspects which make Hannover Rück quite different from a typical European primary insurer, in particular, its access to global diversification across regions, markets, cedents and all lines of business. The difference in diversification is the driving force of differences between the standard formula and the internal model for life, health and non-life underwriting risk. It also has some influence on counterparty and market risk.

A further difference is caused by the fact that Hannover Rück has received approval for a dynamic modelling of the volatility adjustment from BaFin for year-end 2019. By this, the effect of the volatility adjustment is captured in the calculation of the required capital more adequately compared to the standard formula.

The standard formula offers a detailed module for the quantification of EU natural catastrophe risk. Due to its focus it does offer a very broad, premium-based approximation for non-EU and non-proportional natural catastrophe risk, only. Hannover Rück assumes more than 70% of its natural catastrophe risk outside the EU and thus has a detailed internal model for such risks.

The standard formula is designed for a single primary insurer and thus has no module to recognise diversification between different primary insurers. The latter is an important feature of Hannover Rück's internal model and founded on Hannover Rück's internal data analysis.

The standard formula allows for appropriate recognition of some but not all reinsurance structures. For example multi-line covers are not fully effective. The internal model is able to recognise all retrocession structures currently implemented by Hannover Rück.

In contrast to the standard formula, Hannover Re's internal model has capital requirements for all government bonds.

Technically, the internal model is a stochastic approach while the standard formula is a factor-based (deterministic) approach. The concept for underlying risk factors is in many areas similar, e.g. for market and counterparty risk, but in general more detailed in Hannover Rück's internal model. Hannover Rück's internal model allows for bottom-up, non-linear dependency structures within and between market, underwriting, operational and counterparty risk.

E.5 Non-compliance with the Minimum Capital Requirement and non-compliance with the Solvency Capital Requirement

Both solvency and minimum capital requirements – with and without application of the volatility adjustment - were complied with at all times during the period under consideration.

E.6 Any other information

There is no other information that has a significant influence on capital management.

Abbreviations and glossary

Advanced Solutions: Structured and tailor-made reinsurance solutions to assist our clients with their capital management, provide solvency relief or protection against strain of frequency losses.

AF: Actuarial function

BaFin: Bundesanstalt für Finanzdienstleistungsaufsicht, Federal Financial Supervisory Authority

BEL: Best Estimate Liability

CDO: Collateralised Debt Obligation

CEO: Chief Executive Officer

CFO: Chief Financial Officer

CLO: Collateralised Loan Obligation

CMS: Compliance Management System

EBIT: Earnings before interest and taxes

EEA: European Economic Area

EIOPA: European Insurance and Occupational Pensions Authority

EPIFP: Expected Profit included in Future Premiums

ESG: Environment Social Governance

E+S Rück: E+S Rückversicherung AG, Hannover

FWH: Funds withheld

GA: Group Auditing, internal audit of the Hannover Re

GLS: Group Legal Services, legal division of the Hannover Re

Hannover Rück: Hannover Rück SE, Hannover, Germany

HDI: HDI Haftpflichtverband der Deutschen Industrie V.a.G., Hannover, Germany

HGB: Handelsgesetzbuch, German Commercial Code

Home Office: The expression „Home Office“ comprises Hannover Rück and E+S Rück.

IAS: International Accounting Standard

ICS: Internal Control System

IFRS: International Financial Reporting Standards

L&H: Life and Health

MCR: Minimum Capital Requirement

NGO: Non-Governmental Organisation

ORSA: Own Risk and Solvency Assessment

P&C: Property and Casualty

QRT: Quantitative Reporting Template

RechVersV: Verordnung über die Rechnungslegung von Versicherungsunternehmen (Versicherungsunternehmens-Rechnungslegungsverordnung), Insurance accounting regulation

Risk appetite: Indicates how much risk a company is willing to take to achieve the company's goals. The risk appetite is an important part of the risk strategy.

RM: Risk margin

RMF: Risk Management Function

SCR: Solvency Capital Requirement

SII: Solvency II

Talanx: Talanx AG, Hannover

TP: Technical provisions

US GAAP: United States Generally Accepted Accounting Principles

VAG: Gesetz über die Beaufsichtigung der Versicherungsunternehmen (Versicherungsaufsichts-gesetz), Insurance Supervision Act

VaR: Value-at-Risk

WHO: World Health Organisation

Quantitative Reporting Templates

All values are shown in TEUR if not otherwise stated.

Values below TEUR 0.5 are displayed as “0”. Empty cells represent the fact that Hannover Rück has no value to state.

Additional disclosure according to Art. 192 (2) of the Delegated Regulation 2015/35

Hannover Rück has collateral arrangements with a total value well below 60% of total assets. The threshold of 60% is defined in Art. 192 (2) of the Delegated Regulation 2015/35. This information is relevant to calculate the counterparty default risk with respect to Hannover Rück in the Solvency II standard formula.

S.02.01.02: Balance sheet

S.02.01.02: Balance sheet, page 1		Solvency II
Assets		**C0010**
Intangible assets	**R0030**	
Deferred tax assets	**R0040**	251,215
Pension benefit surplus	**R0050**	
Property, plant & equipment held for own use	**R0060**	73,785
Investments (other than assets held for index-linked and unit-linked contracts)	**R0070**	36,354,766
Property (other than for own use)	**R0080**	16,359
Holdings in related undertakings, including participations	**R0090**	10,909,245
Equities	**R0100**	0
Equities - listed	**R0110**	
Equities - unlisted	**R0120**	0
Bonds	**R0130**	22,538,498
Government Bonds	**R0140**	12,490,720
Corporate Bonds	**R0150**	9,534,402
Structured notes	**R0160**	
Collateralised securities	**R0170**	513,375
Collective Investments Undertakings	**R0180**	2,208,467
Derivatives	**R0190**	49,253
Deposits other than cash equivalents	**R0200**	632,944
Other investments	**R0210**	
Assets held for index-linked and unit-linked contracts	**R0220**	
Loans and mortgages	**R0230**	2,947
Loans on policies	**R0240**	
Loans and mortgages to individuals	**R0250**	2,947
Other loans and mortgages	**R0260**	
Reinsurance recoverables from:	**R0270**	4,751,919
Non-life and health similar to non-life	**R0280**	4,970,819
Non-life excluding health	**R0290**	4,703,172
Health similar to non-life	**R0300**	267,647
Life and health similar to life, excluding health and index-linked and unit-linked	**R0310**	−218,900
Health similar to life	**R0320**	537,058
Life excluding health and index-linked and unit-linked	**R0330**	−755,958
Life index-linked and unit-linked	**R0340**	
Deposits to cedants	**R0350**	6,061,865
Insurance and intermediaries receivables	**R0360**	956,882
Reinsurance receivables	**R0370**	383,802
Receivables (trade, not insurance)	**R0380**	1,091,642
Own shares (held directly)	**R0390**	
Amounts due in respect of own fund items or initial fund called up but not yet paid in	**R0400**	
Cash and cash equivalents	**R0410**	519,577
Any other assets, not elsewhere shown	**R0420**	82,817
Total assets	**R0500**	**50,531,217**

S.02.01.02: Balance sheet, page 2		Solvency II
Liabilities		**C0010**
Technical provisions – non-life	**R0510**	22,906,658
Technical provisions – non-life (excluding health)	**R0520**	21,362,216
Technical provisions calculated as a whole	**R0530**	
Best Estimate	**R0540**	20,883,697
Risk margin	**R0550**	478,519
Technical provisions - health (similar to non-life)	**R0560**	1,544,442
Technical provisions calculated as a whole	**R0570**	
Best Estimate	**R0580**	1,511,197
Risk margin	**R0590**	33,245
Technical provisions - life (excluding index-linked and unit-linked)	**R0600**	4,234,020
Technical provisions - health (similar to life)	**R0610**	1,172,955
Technical provisions calculated as a whole	**R0620**	
Best Estimate	**R0630**	904,030
Risk margin	**R0640**	268,924
Technical provisions – life (excluding health and index-linked and unit-linked)	**R0650**	3,061,065
Technical provisions calculated as a whole	**R0660**	
Best Estimate	**R0670**	1,893,739
Risk margin	**R0680**	1,167,326
Technical provisions – index-linked and unit-linked	**R0690**	282,530
Technical provisions calculated as a whole	**R0700**	
Best Estimate	**R0710**	277,736
Risk margin	**R0720**	4,794
Contingent liabilities	**R0740**	1,777
Provisions other than technical provisions	**R0750**	108,349
Pension benefit obligations	**R0760**	165,291
Deposits from reinsurers	**R0770**	3,281,818
Deferred tax liabilities	**R0780**	2,395,992
Derivatives	**R0790**	47,949
Debts owed to credit institutions	**R0800**	
Financial liabilities other than debts owed to credit institutions	**R0810**	1,260,484
Insurance & intermediaries payables	**R0820**	686,702
Reinsurance payables	**R0830**	196,677
Payables (trade, not insurance)	**R0840**	97,202
Subordinated liabilities	**R0850**	2,381,960
Subordinated liabilities not in Basic Own Funds	**R0860**	
Subordinated liabilities in Basic Own Funds	**R0870**	2,381,960
Any other liabilities, not elsewhere shown	**R0880**	54,090
Total liabilities	**R0900**	**38,101,498**
Excess of assets over liabilities	**R1000**	**12,429,719**

S.05.01.02: Premiums, claims and expenses by line of business ("Cover")

S.05.01.02: Cover, page 1

		Line of Business for: non-life insurance and reinsurance obligations (direct business and accepted proportional reinsurance)								
		Medical expense insurance	Income protection insurance	Workers' compensation insurance	Motor vehicle liability insurance	Other motor insurance	Marine, aviation and transport insurance	Fire and other damage to property insurance	General liability insurance	Credit and suretyship insurance
		C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090
Premiums written										
Gross - Direct Business	R0110									
Gross - Proportional reinsurance accepted	R0120	48,712	230,732	85,322	1,102,314	1,201,550	580,508	4,186,640	1,333,641	692,583
Gross - Non-proportional reinsurance accepted	R0130									
Reinsurers' share	R0140	26,557	34,129	52,255	378,453	621,539	343,094	2,170,918	428,284	275,060
Net	R0200	22,155	196,603	33,067	723,862	580,010	237,414	2,015,722	905,357	417,523
Premiums earned										
Gross - Direct Business	R0210									
Gross - Proportional reinsurance accepted	R0220	40,402	214,989	88,096	1,091,920	1,230,439	552,560	4,032,396	1,284,628	729,699
Gross - Non-proportional reinsurance accepted	R0230									
Reinsurers' share	R0240	20,324	28,515	52,229	373,244	607,757	337,087	2,058,042	396,653	251,999
Net	R0300	20,078	186,473	35,867	718,676	622,682	215,473	1,974,354	887,975	477,700
Claims incurred										
Gross - Direct Business	R0310									
Gross - Proportional reinsurance accepted	R0320	13,378	96,813	49,622	708,001	800,436	279,857	2,763,616	908,513	413,993
Gross - Non-proportional reinsurance accepted	R0330									
Reinsurers' share	R0340	9,464	14,185	34,203	255,880	413,825	230,250	1,184,147	255,943	187,833
Net	R0400	3,914	82,628	15,419	452,120	386,611	49,606	1,579,468	652,570	226,160

S.05.01.02: Cover, page 2

		Line of Business for: non-life insurance and reinsurance obligations (direct business and accepted proportional reinsurance)								
		Medical expense insurance	Income protection insurance	Workers' compensation insurance	Motor vehicle liability insurance	Other motor insurance	Marine, aviation and transport insurance	Fire and other damage to property insurance	General liability insurance	Credit and suretyship insurance
		C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090
Changes in other technical provisions										
Gross - Direct Business	R0410									
Gross - Proportional reinsurance accepted	R0420		−116				−36	−32	−6	
Gross - Non-proportional reinsurance accepted	R0430									
Reinsurers' share	R0440						−5	−5	−1	
Net	R0500		−116				−31	−27	−5	
Expenses incurred	R0550	11,976	89,229	22,639	269,195	199,196	84,723	790,683	319,593	226,312
Other expenses	R1200									
Total expenses	R1300									

S.05.01.02: Cover, page 3

		Line of Business for: non-life insurance and reinsurance obligations (direct business and accepted proportional reinsurance)			Line of Business for: accepted non-proportional reinsurance				Total
		Legal expenses insurance	Assistance	Miscellaneous financial loss	Health	Casualty	Marine, aviation, transport	Property	
		C0100	C0110	C0120	C0130	C0140	C0150	C0160	C0200
Premiums written									
Gross - Direct Business	R0110								
Gross - Proportional reinsurance accepted	R0120	41,342	880	134,666					9,638,891
Gross - Non-proportional reinsurance accepted	R0130				160,442	1,227,887	239,508	2,094,272	3,722,109
Reinsurers' share	R0140	6,151	43	26,124	4,285	6,010	17,333	247,938	4,638,173
Net	R0200	35,191	837	108,542	156,157	1,221,876	222,176	1,846,334	8,722,827
Premiums earned									
Gross - Direct Business	R0210								
Gross - Proportional reinsurance accepted	R0220	39,593	977	129,357					9,435,057
Gross - Non-proportional reinsurance accepted	R0230				161,223	1,133,183	234,078	2,040,893	3,569,376
Reinsurers' share	R0240	5,862	45	25,826	4,256	5,897	17,111	242,665	4,427,512
Net	R0300	33,731	932	103,531	156,966	1,127,286	216,966	1,798,228	8,576,921

S.05.01.02: Cover, page 4

		Line of Business for: non-life insurance and reinsurance obligations (direct business and accepted proportional reinsurance)			Line of Business for: accepted non-proportional reinsurance				Total
		Legal expenses insurance	Assistance	Miscellaneous financial loss	Health	Casualty	Marine, aviation, transport	Property	
		C0100	C0110	C0120	C0130	C0140	C0150	C0160	C0200
Claims incurred									
Gross - Direct Business	R0310								
Gross - Proportional reinsurance accepted	R0320	32,692	459	253,070					6,320,449
Gross - Non-proportional reinsurance accepted	R0330				113,297	840,296	161,318	1,582,437	2,697,348
Reinsurers' share	R0340	4,694	512	86,842	2,810	2,141	23,328	185,119	2,891,178
Net	R0400	27,998	−53	166,228	110,487	838,154	137,990	1,397,318	6,126,620
Changes in other technical provisions									
Gross - Direct Business	R0410								
Gross - Proportional reinsurance accepted	R0420								−190
Gross - Non-proportional reinsurance accepted	R0430								
Reinsurers' share	R0440								−11
Net	R0500								−179
Expenses incurred	R0550	10,825	509	53,979	39,244	299,175	42,456	270,284	2,730,017
Other expenses	R1200								
Total expenses	R1300								2,730,017

S.05.01.02: Cover, page 5

		Line of Business for: life insurance obligations						Life reinsurance obligations		Total
		Health insurance	Insurance with profit participation	Index-linked and unit-linked insurance	Other life insurance	Annuities stemming from non-life insurance contracts and relating to health insurance obligations	Annuities stemming from non-life insurance contracts and relating to insurance obligations other than health insurance obligations	Health reinsurance	Life reinsurance	
		C0210	C0220	C0230	C0240	C0250	C0260	C0270	C0280	C0300
Premiums written										
Gross	R1410							2,072,988	3,783,032	5,856,021
Reinsurers' share	R1420							585,359	874,239	1,459,599
Net	R1500							1,487,629	2,908,793	4,396,422
Premiums earned										
Gross	R1510							2,020,206	3,759,986	5,780,192
Reinsurers' share	R1520							561,636	872,150	1,433,786
Net	R1600							1,458,570	2,887,836	4,346,406
Claims incurred										
Gross	R1610							2,001,697	3,274,107	5,275,804
Reinsurers' share	R1620							785,946	692,888	1,478,834
Net	R1700							1,215,752	2,581,219	3,796,970
Changes in other technical provisions										
Gross	R1710							159,413	80,988	240,401
Reinsurers' share	R1720							312,152	29,333	341,485
Net	R1800							−152,739	51,655	−101,084
Expenses incurred	R1900							235,247	479,855	715,103
Other expenses	R2500									
Total expenses	R2600									715,103

S.05.02.01: Premiums, claims and expenses by country ("Country")

S.05.02.01: Country, page 1

		Home country	Top 5 countries (by amount of gross premiums written) - non-life obligations					Total Top 5 and home country
		C0010	C0020	C0030	C0040	C0050	C0060	C0070
	R0010		AU	CN	FR	GB	US	
		C0080	C0090	C0100	C0110	C0120	C0130	C0140
Premiums written								
Gross - Direct Business	R0110							
Gross - Proportional reinsurance accepted	R0120	354,771	416,701	1,172,306	369,862	1,178,631	2,811,799	6,304,070
Gross - Non-proportional reinsurance accepted	R0130	23,277	72,595	42,249	170,112	387,520	1,839,636	2,535,387
Reinsurers' share	R0140	1,172,863	28,103	5,433	770	51,481	14,658	1,273,307
Net	R0200	−794,816	461,192	1,209,122	539,205	1,514,670	4,636,777	7,566,150
Premiums earned								
Gross - Direct Business	R0210							
Gross - Proportional reinsurance accepted	R0220	337,723	372,275	1,050,401	366,390	1,147,605	2,692,280	5,966,675
Gross - Non-proportional reinsurance accepted	R0230	11,755	67,150	37,386	164,754	368,976	1,783,954	2,433,975
Reinsurers' share	R0240	1,130,846	14,643	5,431	760	51,420	13,620	1,216,719
Net	R0300	−781,368	424,782	1,082,357	530,383	1,465,162	4,462,615	7,183,930
Claims incurred								
Gross - Direct Business	R0310							
Gross - Proportional reinsurance accepted	R0320	221,870	291,692	792,883	245,633	757,700	1,862,579	4,172,357
Gross - Non-proportional reinsurance accepted	R0330	−440	52,130	32,302	222,729	309,072	1,445,215	2,061,007
Reinsurers' share	R0340	829,971	3,117	6,873	1,742	24,763	12,474	878,941
Net	R0400	−608,540	340,705	818,311	466,619	1,042,009	3,295,319	5,354,424
Changes in other technical provisions								
Gross - Direct Business	R0410							
Gross - Proportional reinsurance accepted	R0420	−155			−35			−190
Gross - Non-proportional reinsurance accepted	R0430							
Reinsurers' share	R0440	−11						−11
Net	R0500	−144			−35			−179
Expenses incurred	R0550	−226,183	118,413	268,815	211,535	425,220	1,258,897	2,056,697
Other expenses	R1200							
Total expenses	R1300							2,056,697

S.05.02.01: Country, page 2

		Home country	Top 5 countries (by amount of gross premiums written) - life obligations					Total Top 5 and home country
		C0150	C0160	C0170	C0180	C0190	C0200	C0210
	R1400		AU	CN	FR	GB	IE	
		C0220	C0230	C0240	C0250	C0260	C0270	C0280
Premiums written								
Gross	R1410	5,968	677,275	1,088,724	851,308	1,339,804	141,975	4,105,054
Reinsurers' share	R1420	4,274		44,293	393		611,347	660,307
Net	R1500	1,694	677,275	1,044,431	850,916	1,339,804	−469,373	3,444,747
Premiums earned								
Gross	R1510	5,968	677,275	1,023,222	850,699	1,339,804	141,925	4,038,893
Reinsurers' share	R1520	4,274		44,293	393		583,144	632,104
Net	R1600	1,694	677,275	978,929	850,306	1,339,804	−441,219	3,406,789
Claims incurred								
Gross	R1610	6,099	638,539	785,169	614,689	1,432,354	107,118	3,583,967
Reinsurers' share	R1620	3,727		465,897	32		419,784	889,440
Net	R1700	2,372	638,539	319,272	614,657	1,432,354	−312,666	2,694,527
Changes in other technical provisions								
Gross	R1710		−23,871	3,967	−103,268	91,534	3,369	−28,269
Reinsurers' share	R1720	−10		397,545			−48,300	349,235
Net	R1800	10	−23,871	−393,578	−103,268	91,534	51,669	−377,504
Expenses incurred	R1900	47,932	−103,819	142,579	157,984	50,609	−128,279	167,006
Other expenses	R2500							
Total expenses	R2600							167,006

S.12.01.02: Life and Health SLT Technical Provisions ("TP Life")

TP Life, page 1

		Insurance with profit participation	Index-linked and unit-linked insurance	Contracts without options and guarantees	Contracts with options or guarantees
		C0020	C0030	C0040	C0050
Technical provisions calculated as a whole	R0010				
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP calculated as a whole	R0020				
Technical provisions calculated as a sum of BE and RM					
Best Estimate					
Gross Best Estimate	R0030				
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	R0080				
Best estimate minus recoverables from reinsurance/SPV and Finite Re - total	R0090				
Risk Margin	R0100				
Amount of the transitional on Technical Provisions					
Technical Provisions calculated as a whole	R0110				
Best estimate	R0120				
Risk margin	R0130				
Technical provisions - total	R0200				

TP Life, page 2

		Other life insurance		
			Contracts without options and guarantees	Contracts with options or guarantees
		C0060	C0070	C0080
Technical provisions calculated as a whole	**R0010**			
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP calculated as a whole	**R0020**			
Technical provisions calculated as a sum of BE and RM				
Best Estimate				
Gross Best Estimate	**R0030**			
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	**R0080**			
Best estimate minus recoverables from reinsurance/SPV and Finite Re - total	**R0090**			
Risk Margin	**R0100**			
Amount of the transitional on Technical Provisions				
Technical Provisions calculated as a whole	**R0110**			
Best estimate	**R0120**			
Risk margin	**R0130**			
Technical provisions - total	**R0200**			

TP Life, page 3

		Annuities stemming from non-life insurance contracts and relating to insurance obligation other than health insurance obligations	Accepted reinsurance	Total (Life other than health insurance, incl. Unit-Linked)
		C0090	C0100	C0150
Technical provisions calculated as a whole	**R0010**			
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP calculated as a whole	**R0020**			
Technical provisions calculated as a sum of BE and RM				
Best Estimate				
Gross Best Estimate	**R0030**		2,171,476	**2,171,476**
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	**R0080**		−755,958	**−755,958**
Best estimate minus recoverables from reinsurance/SPV and Finite Re - total	**R0090**		2,927,434	**2,927,434**
Risk Margin	**R0100**		1,172,120	**1,172,120**
Amount of the transitional on Technical Provisions				
Technical Provisions calculated as a whole	**R0110**			
Best estimate	**R0120**			
Risk margin	**R0130**			
Technical provisions - total	**R0200**		**3,343,596**	**3,343,596**

TP Life, page 4

		Health insurance (direct business)		
			Contracts without options and guarantees	Contracts with options or guarantees
		C0160	C0170	C0180
Technical provisions calculated as a whole	**R0010**			
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP calculated as a whole	**R0020**			
Technical provisions calculated as a sum of BE and RM				
Best Estimate				
Gross Best Estimate	**R0030**			
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	**R0080**			
Best estimate minus recoverables from reinsurance/SPV and Finite Re - total	**R0090**			
Risk Margin	**R0100**			
Amount of the transitional on Technical Provisions				
Technical Provisions calculated as a whole	**R0110**			
Best estimate	**R0120**			
Risk margin	**R0130**			
Technical provisions - total	**R0200**			

TP Life, page 5

		Annuities stemming from non-life insurance contracts and relating to health insurance obligations	Health reinsurance (reinsurance accepted)	Total (Health similar to life insurance)
		C0190	C0200	C0210
Technical provisions calculated as a whole	R0010			
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP calculated as a whole	R0020			
Technical provisions calculated as a sum of BE and RM				
Best Estimate				
Gross Best Estimate	R0030		904,030	904,030
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	R0080		537,058	537,058
Best estimate minus recoverables from reinsurance/SPV and Finite Re - total	R0090		366,972	366,972
Risk Margin	R0100		268,924	268,924
Amount of the transitional on Technical Provisions				
Technical Provisions calculated as a whole	R0110			
Best estimate	R0120			
Risk margin	R0130			
Technical provisions - total	R0200		1,172,955	1,172,955

S.17.01.02: Non-Life Technical Provisions

S.17.01.02: TP Non-Life, page 1

		Direct business and accepted proportional reinsurance								
		Medical expense insurance	Income protection insurance	Workers' compensation insurance	Motor vehicle liability insurance	Other motor insurance	Marine, aviation and transport insurance	Fire and other damage to property insurance	General liability insurance	Credit and suretyship insurance
		C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090	C0100
Technical provisions calculated as a whole	R0010									
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP calculated as a whole	R0050									
Technical provisions calculated as a sum of BE and RM										
Best estimate										
Premium provisions										
Gross	R0060	7,194	30,171	7,961	113,706	135,211	160,563	895,135	433,084	293,300
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	R0140	5,887	5,561	5,522	15,118	48,683	25,053	136,693	116,427	63,695
Net Best Estimate of Premium Provisions	R0150	1,307	24,610	2,439	98,587	86,528	135,510	758,442	316,656	229,605

S.17.01.02: TP Non-Life, page 2

		Direct business and accepted proportional reinsurance								
		Medical expense insurance	Income protection insurance	Workers' compensation insurance	Motor vehicle liability insurance	Other motor insurance	Marine, aviation and transport insurance	Fire and other damage to property insurance	General liability insurance	Credit and suretyship insurance
		C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090	C0100
Claims provisions										
Gross	R0160	16,678	185,298	120,474	1,015,105	722,753	717,847	3,072,471	2,537,101	1,064,294
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	R0240	12,024	27,116	207,088	495,970	347,260	393,700	1,036,584	1,091,095	364,450
Net Best Estimate of Claims Provisions	R0250	4,654	158,182	−86,614	519,135	375,494	324,148	2,035,887	1,446,005	699,843
Total Best estimate - gross	R0260	23,873	215,469	128,435	1,128,811	857,964	878,410	3,967,606	2,970,184	1,357,594
Total Best estimate - net	R0270	5,962	182,792	−84,175	617,722	462,022	459,658	2,794,329	1,762,662	929,449
Risk margin	R0280	404	4,086	2,986	27,641	20,059	19,799	83,799	72,347	26,257
Amount of the transitional on Technical Provisions										
Technical Provisions calculated as a whole	R0290									
Best estimate	R0300									
Risk margin	R0310									

S.17.01.02: TP Non-Life, page 3

		Direct business and accepted proportional reinsurance								
		Medical expense insurance	Income protection insurance	Workers' compensation insurance	Motor vehicle liability insurance	Other motor insurance	Marine, aviation and transport insurance	Fire and other damage to property insurance	General liability insurance	Credit and suretyship insurance
		C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090	C0100
Technical provisions - total										
Technical provisions - total	R0320	24,277	219,555	131,420	1,156,452	878,023	898,208	4,051,405	3,042,532	1,383,850
Recoverable from reinsurance contract/SPV and Finite Re after the adjustment for expected losses due to counterparty default - total	R0330	17,911	32,677	212,610	511,089	395,943	418,752	1,173,278	1,207,523	428,145
Technical provisions minus recoverables from reinsurance/SPV and Finite Re - total	R0340	6,366	186,878	−81,190	645,364	482,081	479,456	2,878,127	1,835,009	955,705

S.17.01.02: TP Non-Life, page 4

		Direct business and accepted proportional reinsurance			Accepted non-proportional reinsurance				Total Non-Life obligation
		Legal expenses insurance	Assistance	Miscellaneous financial loss	Non-proportional health reinsurance	Non-proportional casualty reinsurance	Non-proportional marine, aviation and transport reinsurance	Non-proportional property reinsurance	
		C0110	C0120	C0130	C0140	C0150	C0160	C0170	C0180
Technical provisions calculated as a whole	**R0010**								
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP as a whole	**R0050**								
Technical provisions calculated as a sum of BE and RM									
Best estimate									
Premium provisions									
Gross	**R0060**	11,837	−51	52,943	20,670	456,928	15,911	128,905	**2,763,467**
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	**R0140**	897	27	10,471	1	65	−513	13,384	**446,970**
Net Best Estimate of Premium Provisions	**R0150**	10,940	−78	42,472	20,669	456,863	16,425	115,521	**2,316,497**

S.17.01.02: TP Non-Life, page 5

		Direct business and accepted proportional reinsurance			Accepted non-proportional reinsurance				Total Non-Life obligation
		Legal expenses insurance	Assistance	Miscellaneous financial loss	Non-proportional health reinsurance	Non-proportional casualty reinsurance	Non-proportional marine, aviation and transport reinsurance	Non-proportional property reinsurance	
		C0110	C0120	C0130	C0140	C0150	C0160	C0170	C0180
Claims provisions									
Gross	R0160	55,174	512	184,886	1,122,750	5,708,218	682,308	2,425,558	19,631,427
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	R0240	10,229	128	76,210	4,448	22,859	117,352	317,336	4,523,849
Net Best Estimate of Claims Provisions	R0250	44,944	384	108,676	1,118,301	5,685,360	564,956	2,108,222	15,107,578
Total Best Estimate - gross	R0260	67,011	460	237,829	1,143,420	6,165,146	698,219	2,554,463	22,394,893
Total Best Estimate - net	R0270	55,884	306	151,148	1,138,971	6,142,222	581,381	2,223,743	17,424,074
Risk margin	R0280	1,641	24	5,599	25,770	139,785	16,363	65,205	511,764
Amount of the transitional on Technical Provisions									
Technical Provisions calculated as a whole	R0290								
Best Estimate	R0300								
Risk margin	R0310								
Technical provisions - total									
Technical provisions - total	R0320	68,652	484	243,429	1,169,189	6,304,931	714,582	2,619,668	22,906,658
Recoverable from reinsurance contract/SPV and Finite Re after the adjustment for expected losses due to counterparty default - total	R0330	11,126	154	86,681	4,449	22,923	116,838	330,720	4,970,819
Technical provisions minus recoverables from reinsurance/SPV and Finite Re - total	R0340	57,525	330	156,747	1,164,741	6,282,007	597,744	2,288,948	17,935,839

S.19.01.21: Non-life insurance claims

Accident year / Underwriting year	Z0020	1/2

Gross Claims Paid (non-cumulative)
(absolute amount)

S.19.01.21: page 1

		Development year										
	Year	0	1	2	3	4	5	6	7	8	9	10&+
		C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090	C0100	C0110
Prior	R0100											22,007,134
N-9	R0160	652,281	1,158,233	687,302	391,918	136,668	148,195	140,130	82,748	34,034	30,722	
N-8	R0170	873,512	1,097,218	605,119	198,808	140,594	172,999	134,185	138,691	78,098		
N-7	R0180	785,726	1,035,136	521,669	227,115	167,882	143,393	102,239	69,300			
N-6	R0190	740,681	1,105,722	504,993	225,886	176,691	245,900	140,479				
N-5	R0200	1,048,235	1,083,885	564,026	279,052	172,537	165,136					
N-4	R0210	1,105,119	1,213,004	665,486	295,297	239,686						
N-3	R0220	1,275,077	1,782,317	649,784	531,317							
N-2	R0230	1,605,119	2,172,661	1,050,999								
N-1	R0240	2,116,141	2,639,610									
N	R0250	2,153,205										

S.19.01.21: page 1

		In current year	Sum of years (cumu-lative)
		C0170	C0180
Prior	R0100	22,007,134	22,007,134
N-9	R0160	30,722	3,462,231
N-8	R0170	78,098	3,439,225
N-7	R0180	69,300	3,052,460
N-6	R0190	140,479	3,140,352
N-5	R0200	165,136	3,312,871
N-4	R0210	239,686	3,518,590
N-3	R0220	531,317	4,238,494
N-2	R0230	1,050,999	4,828,779
N-1	R0240	2,639,610	4,755,751
N	R0250	2,153,205	2,153,205
Total	R0260	29,105,687	57,909,093

Gross undiscounted Best Estimate Claims Provision
(absoulte amount)

S.19.01.21: page 2

		Development year										
	Year	0	1	2	3	4	5	6	7	8	9	10&+
		C0200	C0210	C0220	C0230	C0240	C0250	C0260	C0270	C0280	C0290	C0300
Prior	R0100											12,737,220
N-9	R0160						1,214,539	1,110,453	874,717	799,506	539,199	
N-8	R0170					1,391,430	1,291,574	1,034,293	889,685	705,396		
N-7	R0180				1,606,571	1,417,793	1,129,091	955,542	724,613			
N-6	R0190			1,923,137	1,762,895	1,337,675	1,115,324	841,441				
N-5	R0200		2,545,186	2,224,782	1,647,776	1,495,314	1,156,758					
N-4	R0210	2,152,899	2,892,098	2,061,794	1,887,125	1,462,270						
N-3	R0220	2,169,710	3,047,733	2,842,856	2,148,452							
N-2	R0230	2,948,276	4,109,718	3,134,075								
N-1	R0240	1,838,252	4,797,023									
N	R0250	2,172,668										

S.19.01.21: page 2

		Year end (discounted data)
		C0360
Prior	R0100	2,398,692
N-9	R0160	523,229
N-8	R0170	687,513
N-7	R0180	704,164
N-6	R0190	818,948
N-5	R0200	1,124,019
N-4	R0210	1,419,149
N-3	R0220	2,092,452
N-2	R0230	3,062,062
N-1	R0240	4,701,334
N	R0250	2,098,467
Total	R0260	19,630,027

S.22.01.21: Impact of long term guarantees measures and transitionals

S.22.01.21: Impact of long term guarantees measures and transitionals		Amount with Long Term Guarantee measures and transitionals	Impact of transitional on technical provisions	Impact of transitional on interest rate	Impact of volatility adjustment set to zero	Impact of matching adjustment set to zero
		C0010	C0030	C0050	C0070	C0090
Technical provisions	R0010	27,423,208			266,594	
Basic own funds	R0020	14,268,992			−230,626	
Eligible own funds to meet Solvency Capital Requirement	R0050	14,268,992			−230,626	
Solvency Capital Requirement	R0090	**5,949,073**			**247,049**	
Eligible own funds to meet Minimum Capital Requirement	R0100	12,941,142			−216,496	
Minimum Capital Requirement	R0110	**2,677,083**			**111,172**	

S.23.01.01: Own funds

S.23.01.01: Own funds, page 1		Total	Tier 1 - unrestricted	Tier 1 - restricted	Tier 2	Tier 3
		C0010	C0020	C0030	C0040	C0050
Basic own funds before deduction for participations in other financial sector as foreseen in article 68 of Delegated Regulation 2015/35						
Ordinary share capital (gross of own shares)	R0010	120,597	120,597			
Share premium account related to ordinary share capital	R0030	880,608	880,608			
Initial funds, members' contributions or the equivalent basic own - fund item for mutual and mutual-type undertakings	R0040					
Subordinated mutual member accounts	R0050					
Surplus funds	R0070					
Preference shares	R0090					
Share premium account related to preference shares	R0110					
Reconciliation reserve	R0130	10,856,278	10,856,278			
Subordinated liabilities	R0140	2,381,960		548,243	1,833,717	
An amount equal to the value of net deferred tax assets	R0160	29,549				29,549
Other own fund items approved by the supervisory authority as basic own funds not specified above	R0180					
Own funds from the financial statements that should not be represented by the reconciliation reserve and do not meet the criteria to be classified as Solvency II own funds						
Own funds from the financial statements that should not be represented by the reconciliation reserve and do not meet the criteria to be classified as Solvency II own funds	R0220					
Deductions						
Deductions for participations in financial and credit institutions	R0230					
Total basic own funds after deductions	R0290	14,268,992	11,857,483	548,243	1,833,717	29,549

S.23.01.01: Own funds, page 2

		Total	Tier 1 - unrestricted	Tier 1 - restricted	Tier 2	Tier 3
		C0010	C0020	C0030	C0040	C0050
Ancillary own funds						
Unpaid and uncalled ordinary share capital callable on demand	R0300					
Unpaid and uncalled initial funds, members' contributions or the equivalent basic own fund item for mutual and mutual - type undertakings, callable on demand	R0310					
Unpaid and uncalled preference shares callable on demand	R0320					
A legally binding commitment to subscribe and pay for subordinated liabilities on demand	R0330					
Letters of credit and guarantees under Article 96(2) of the Directive 2009/138/EC	R0340					
Letters of credit and guarantees other than under Article 96(2) of the Directive 2009/138/EC	R0350					
Supplementary members calls under first subparagraph of Article 96(3) of the Directive 2009/138/EC	R0360					
Supplementary members calls - other than under first subparagraph of Article 96(3) of the Directive 2009/138/EC	R0370					
Other ancillary own funds	R0390					
Total ancillary own funds	R0400					
Available and eligible own funds						
Total available own funds to meet the SCR	R0500	14,268,992	11,857,483	548,243	1,833,717	29,549
Total available own funds to meet the MCR	R0510	14,239,443	11,857,483	548,243	1,833,717	
Total eligible own funds to meet the SCR	R0540	14,268,992	11,857,483	548,243	1,833,717	29,549
Total eligible own funds to meet the MCR	R0550	12,941,142	11,857,483	548,243	535,417	
SCR	R0580	5,949,073				
MCR	R0600	2,677,083				
Ratio of Eligible own funds to SCR	R0620	2.3985				
Ratio of Eligible own funds to MCR	R0640	4.8340				

S.23.01.01: Own funds, page 3 / Reconciliation reserve

		C0060
Reconciliation reserve		
Excess of assets over liabilities	**R0700**	12,429,719
Own shares (held directly and indirectly)	**R0710**	
Foreseeable dividends, distributions and charges	**R0720**	542,687
Other basic own fund items	**R0730**	1,030,754
Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds	**R0740**	
Reconciliation reserve	**R0760**	**10,856,278**
Expected profits		
Expected profits included in future premiums (EPIFP) - Life business	**R0770**	3,950,829
Expected profits included in future premiums (EPIFP) - Non-life business	**R0780**	
Total Expected profits included in future premiums (EPIFP)	**R0790**	**3,950,829**

S.25.03.21: Solvency Capital Requirement – for undertakings on Full Internal Model

Unique number of component	Components description	Calculation of the Solvency Capital Requirement
C0010	C0020	C0030
101	Market risk according to IM	4,143,238
102	Counterparty default risk according to IM	445,380
103	Life underwriting risk according to IM	3,139,919
104	Non-life underwriting risk according to IM	4,352,598
105	Operational risk according to IM	529,608
107	LAC TP according to IM	
108	LAC DT according to IM	−2,203,876

Calculation of Solvency Capital Requirement		C0100
Total undiversified components	R0110	10,406,867
Diversification	R0060	−4,457,794
Capital requirement for business operated in accordance with Art. 4 of Directive 2003/41/EC (transitional)	R0160	
Solvency capital requirement excluding capital add-on	R0200	5,949,073
Capital add-ons already set	R0210	
Solvency capital requirement	R0220	5,949,073
Other information on SCR		
Amount/estimate of the overall loss-absorbing capacity of technical provisions	R0300	
Amount/estimate of the overall loss-absorbing capacity ot deferred taxes	R0310	−2,203,876
Total amount of Notional Solvency Capital Requirements for remaining part	R0410	
Total amount of Notional Solvency Capital Requirements for ring fenced funds	R0420	
Total amount of Notional Solvency Capital Requirement for matching adjustment portfolios	R0430	
Diversification effects due to RFF nSCR aggregation for article 304	R0440	

Approach to tax rate		Yes/No
		C0109
Approach based on average tax rate	R0590	No

Calculation of loss absorbing capacity of deferred taxes		LAC DT
		C0130
Amount/estimate of LAC DT	R0640	−2,203,876
Amount/estimate of LAC DT justified by reversion of deferred tax liabilities	R0650	−2,144,057
Amount/estimate of LAC DT justified by reference to probable future taxable economic profit	R0660	−59,819
Amount/estimate of LAC DT justified by carry back, current year	R0670	
Amount/estimate of LAC DT justified by carry back, future years	R0680	
Amount/estimate of Maximum LAC DT	R0690	−2,240,540

S.28.01.01: Minimum Capital Requirement - Only life or only non-life insurance or reinsurance activity

Linear formula component for non-life insurance and reinsurance obligations

		C0010
MCR_{NL} Result	R0010	3,708,704

S.28.01.01: MCR, page 1

		Net (of reinsurance / SPV) best estimate and TP calculated as a whole	Net (of reinsurance) written premiums in the last 12 months
		C0020	C0030
Medical expense insurance and proportional reinsurance	R0020	5,962	21,050
Income protection insurance and proportional reinsurance	R0030	182,792	195,000
Workers' compensation insurance and proportional reinsurance	R0040		32,708
Motor vehicle liability insurance and proportional reinsurance	R0050	617,722	673,153
Other motor insurance and proportional reinsurance	R0060	462,022	552,989
Marine, aviation and transport insurance and proportional reinsurance	R0070	459,658	224,220
Fire and other damage to property insurance and proportional reinsurance	R0080	2,794,329	1,938,128
General liability insurance and proportional reinsurance	R0090	1,762,662	889,022
Credit and suretyship insurance and proportional reinsurance	R0100	929,449	385,117
Legal expenses insurance and proportional reinsurance	R0110	55,884	35,176
Assistance and proportional reinsurance	R0120	306	835
Miscellaneous financial loss insurance and proportional reinsurance	R0130	151,148	108,616
Non-proportional health reinsurance	R0140	1,138,971	158,300
Non-proportional casualty reinsurance	R0150	6,142,222	1,230,450
Non-proportional marine, aviation and transport reinsurance	R0160	581,381	226,433
Non-proportional property reinsurance	R0170	2,223,743	1,866,321

Linear formula component for life insurance and reinsurance obligations

		C0040
MCR_L Result	R0200	1,231,639

Total capital at risk for all life (re)insurance obligations

S.28.01.01: MCR, page 2		Net (of reinsurance / SPV) best estimate and TP calculated as a whole	Net (of reinsurance / SPV) total capital at risk
		C0050	C0060
Obligations with profit participation - guaranteed benefits	R0210		
Obligations with profit participation - future discretionary benefits	R0220		
Index-linked and unit-linked insurance obligations	R0230	277,736	
Other life (re)insurance and health (re)insurance obligations	R0240	3,016,670	
Total capital at risk for all life (re)insurance obligations	R0250		1,666,206,411

Overall MCR calculation

		C0070
Linear MCR	R0300	4,940,343
SCR	R0310	5,949,073
MCR cap	R0320	2,677,083
MCR floor	R0330	1,487,268
Combined MCR	R0340	2,677,083
Absolute floor of the MCR	R0350	3,600
Minimum Capital Requirement	R0400	2,677,083

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