somewhat different

Hannover Rück SE 2022

Solvency and Financial Condition Report

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Executive Summary

Key figures

in TEUR	2022	2021
Solvency II Balance Sheet		
Assets	63,329,353	57,863,715
Technical Provisions	33,931,642	31,690,188
Other Liabilities	14,911,694	12,067,121
Excess of Assets over Liabilities	14,486,016	14,106,406
Eligible Own Funds		
Tier 1 Basic Own Funds (unrestricted)	13,723,099	13,348,564
Tier 1 Basic Own Funds (restricted)	486,034	533,225
Tier 2 Basic Own Funds	2,888,442	2,503,601
Tier 3 Basic Own Funds	39,335	64,408
Eligible Own Funds (SCR)	17,136,910	16,449,798
Capital requirements		
Solvency Capital Requirement	6,699,618	6,634,037
Minimum Capital Requirement	3,014,828	2,985,317
Coverage Ratio		
Ratio of Eligible Own Funds to SCR (Solvency Ratio)	256%	248%
Ratio of Eligible Own Funds to MCR	491%	485%

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 2022 and in the financial year 2022. The solvency ratio was above the internal threshold of 200% during the entire financial year.

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 § 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 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 2022 financial year passed off satisfactorily for Hannover Rück. The gross premium for total business increased by 25.9 % to TEUR 27,621,123 (previous year: TEUR 21,941,453). The retention decreased to 65.4 % (69.0 %). Net earned premiums for own account increased by 21.4 % to TEUR 17,923,625 (previous year: TEUR 14,768,338).

With technical income of TEUR 18,127,967 (previous year: TEUR 14,956,289) and technical expenses of TEUR 18,096,145 (previous year: TEUR 15,083,156), Hannover Rück booked a total technical result in accordance with the German Commercial Code of TEUR 31,822 in the 2022 financial year after TEUR -126,867 in the previous year.

Measured in terms of premium volume and total technical result in the 2022 financial year, the following lines of business are most important: marine, aviation and transport insurance (TEUR 205,747), credit and surety insurance (TEUR 190,747), health reinsurance (TEUR 154,000), general liability insurance (TEUR 98,903), life reinsurance (TEUR 45,011) and, conversely, income replacement insurance (TEUR -275,388), health insurance (TEUR -232,414) and fire and other property insurance (TEUR -101,572).

In the marine, aviation and transport insurance line, with increased net earned premiums and a moderate increase in operating expenses, the expenses for insurance claims rose relatively strongly. In the credit and surety insurance line, net premiums earned declined. Operating expenses decrease significantly, while claims and insurance benefits expenses are in line with the decline in premiums. Above all, growing US business and increases in the Advanced Solutions business segment lead to the increase in net earned premium. In relation to this increase, a slightly higher claims ratio was recorded. The loss ratio increased due to a higher allocation to the IBNR and an increased major loss burden. In 2022, net earned premiums increased in the general liability line of business, mainly due to growing US business. Reserves were characterised by a low IBNR position in 2022 compared to 2021.

In health reinsurance, the underwriting result improved significantly in the reporting period. This is mainly due to the decrease of Covid-19 claims in the previous year.

In addition to the international life reinsurance business, the life reinsurance line also includes our financial solutions and longevity business. Overall, the net earned premium in this line increased. The underwriting result recorded a slight increase. The main driver for the improved result is a decrease of Covid-19 charges from South America, South Africa and the US in the previous year

The investment environment, which has always been challenging in the past years, was again very volatile in the reporting period. In particular, the Russian war of aggression in Ukraine and the effects of the Covid-19 pandemic, which continued during the course of the year, as well as the strong rise in inflation posed and continue to pose special challenges to the global economy. Nevertheless, our ordinary investment income, including interest on deposits, was at the previous year's level. Among other things, the sale of our portfolio of listed shares in the first two quarters had a positive impact on the significantly higher gains from the disposal of investments. In the alternative investments, especially in the sector of unlisted corporate investments, portfolios were

transferred to a joint venture with Münchener Rückversicherungs-Gesellschaft AG. This led to the disclosure of proportionate hidden reserves. Opposing effects resulted mainly from the sale of fixed income securities in the course of reallocations in our loan portfolios as well as from general portfolio maintenance. In the first quarter, we sold parts of our holdings of Russian and Ukrainian bonds. Impairments on investments were mainly recognized on bearer bonds held as fixed assets. These were mainly Russian or Ukrainian issuers or issuers from the real estate sector in China. We also made write-downs on deposits held on assumed reinsurance. Overall, we thus achieved an investment result significantly above that of the previous year.

The portfolio of our investments under own management was at the comparable level of the previous period, whereby the higher interest rates and increased risk premiums for corporate bonds had a clearly negative impact on the market values of our fixed-interest securities. However, the strong operating cash flow, the issuance of a bond and positive currency effects largely compensated for this. Our investments benefited overall from the fact that we had already positioned ourselves more cautiously since the end of the previous year in view of expected central bank activities and inflation developments, and also only made very moderate new investments and reinvestments in securities with steeper risk profiles in the reporting period. Apart from liquidating our portfolio of listed equities, we have overall arranged our asset allocation somewhat less risky in the corporate bond sector during the reporting period. In real estate, we were able to take advantage of a few market opportunities to strengthen our portfolio in South America and Europe. At the end of the fourth quarter, we broadened the basis for action for our short- and medium-term liquidity management through realizations in the area of fixed-interest securities. For all other asset classes, we only made minor changes as part of regular portfolio maintenance.

Details on the Business and Performance can 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 § 26 and §§ 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.

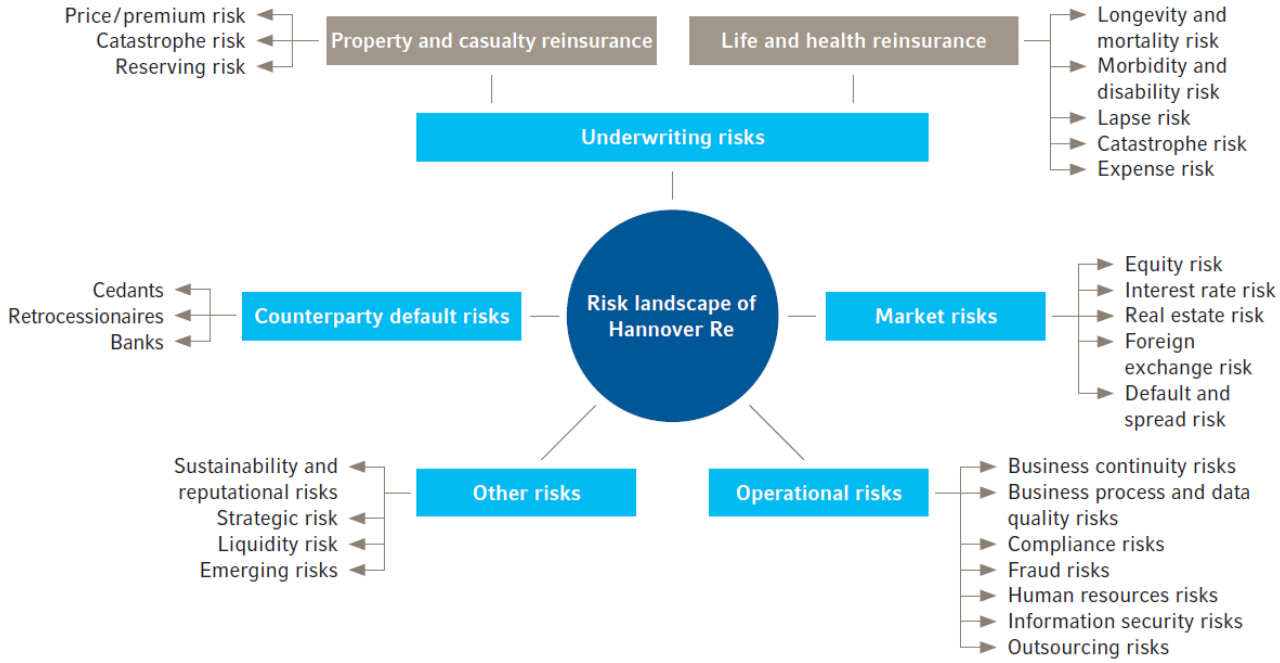
Hannover Rück has established an outsourcing management process that covers all process steps of an outsourcing and involves all relevant stakeholder groups. Currently, there is only one important outsourcing to Ampega Asset Management GmbH, covering the asset and investment management.

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 Rück is confronted with a broad variety of risks. These risks are deliberately accepted, steered and monitored in order to be able to act on the associated opportunities. 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.

The solvency capital requirements (SCR) as of 31 December 2022 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	2022	2021
Underwriting risk - Property & Casualty	5,445,473	5,251,239
Underwriting risk - Life & Health	2,507,694	3,324,426
Market risk	4,940,625	4,612,492
Counterparty default risk	426,917	462,029
Operational risk	607,039	610,163
Diversification	**-4,739,894**	**-5,121,055**
Total risk (pre-tax)	**9,187,854**	**9,139,293**
Deferred tax	2,488,237	2,505,256
Total risk (post-tax)	**6,699,618**	**6,634,037**

The required capital is calculated based on the approved internal model. Currently, 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 mortality risks within the underwriting risks of Life & Health reinsurance.

Hannover Rück applies the volatility adjustment. The volatility adjustment partially mitigates the effect of temporary value fluctuations due to credit spread movements on the bond market. This effect is also captured in the calculation of the Solvency Capital Requirement i.e. Hannover Rück applies the dynamic volatility adjustment in its internal model.

Overall, the required capital at the confidence level of 99.5% slightly 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 of Property & Casualty reinsurance and in market risks. The weaker euro against the US dollar also contributed to this increase. On the other hand, the significantly higher interest rate level results in an appreciable decrease in SCR.

Underwriting risks in Property & Casualty reinsurance increased primarily as a consequence of higher business volumes. The enlarged volumes are driven by the business growth, the large loss expenditure and associated higher reserves as well as the stronger US dollar.

The strong increase in interest rates leads to a decrease in underwriting risks in Life & Health reinsurance. This particularly affects longevity risk, but also applies to the mortality and morbidity risk.

The increase in the market risk reflects first and foremost the larger volume due to new investments and higher market values in the areas of private equity and real estate. Wider spreads and increased volumes of fixed-income securities are further factors here.

A smaller volume of receivables due from retrocessionaires was the main driver for the decrease in counterparty default risks.

The changes in operational risk can be attributed to updated expert assessments regarding the impact of individual scenarios.

After almost three years of operational and financial experience with the pandemic and its effects, we now have a solid basis to assess potential further developments and impacts on our company. We continue to evaluate our financial strength and profitability on a regular basis using stress tests and sensitivity analyses, and take measures as needed to reduce risks or strengthen our capital

resources. This is true not only regarding of Covid-19 but also with respect to potential future pandemics.

The risk monitoring, control mechanisms and developments in 2022 are presented in Section C.

D. Valuation for Solvency Purposes

For the purposes of calculating the eligible own funds, Hannover Rück values the assets and liabilities pursuant to the provisions of §§ 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 local reporting standards (HGB), both in terms of structure and in relation to the calculation rules. A comparison of HGB and Solvency II technical provisions is shown as well as a comparison of current technical provisions under Solvency II and those calculated last year.

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 was to fall below this threshold value Hannover Rück will adopt capital measures aimed at either strengthening the company's equity or reducing the risk, or both. However, a fall below threshold would most of the time be avoided by proactive measures and thus has never occurred since introduction of the threshold.

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 2022, there was no breach of the limit of 180%. Further information on the calculation of the solvency ratio can be found in Section E.

The available economic capital increased significantly to TEUR 17,136,910 as at 31 December 2022.The increase is due to an economically successful course of the business year as well as the placement of a subordinated bond with an amount of TEUR 750,000.

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. The different components are classified in quality tiers. Ordinary share capital, the share premium account and the reconciliation reserve are allocated to Tier 1. 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. Hannover Rück does not use ancillary own funds.

The level of own funds by quality classes changed to the previous year due to the placement of a subordinated bond and an increase in deferred tax assets. The structure of economic capital

remains very satisfactory with a ratio of over 80 % of Tier 1 capital. The structure of own funds allows Hannover Rück to use all own funds components to cover the solvency capital requirement.

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.

In addition, the potential outcomes of the ongoing Solvency II review are monitored.

Section E explains the details of capital management.

A. Business and Performance

A.1 Business

A.1.1 Business model

Hannover Rück is a European Company, Societas Europaea (SE), headquartered 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 business operations are dedicated to our goal of being the preferred partner for our clients. It is for this reason that our clients and their concerns form the focus of our activities.

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

Furthermore, we strive for the broadest possible diversification and hence an efficient risk balance. This is achieved by accepting reinsurance risks in all lines and regions of Property & Casualty and Life & Health reinsurance. 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. Particularly in the current market environment, we actively manage our portfolio to ensure long-term profitability on the underwriting side.

In the Life & Health reinsurance business group, we are recognized – 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, among other things, anticipating the future needs of our customers through the early identification of trends.

Our business model further makes allowance for the fact that social and environmental factors influence corporate success and our activities impact people and the environment.

Through its global presence and activities Hannover Rück is directly or via affiliates affected by various foreign economic 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) DVO. Please note that the accounting rules under HGB differ significantly from those under Solvency II.

Hannover Rück recorded a pleasing business development in the 2022 financial year. The gross premium in total business grew by 25.9% to TEUR 27,621,123. The level of retained premium decreased to 65.4%. Net premium earned climbed by 21.4% to TEUR 17,923,625.

The underwriting result (before changes in the equalization reserve) came in at TEUR 31,821. An amount of TEUR 548,303 was allocated to the equalisation reserve and similar provisions in the year under review.

Numerous large losses were again recorded in the 2022 financial year. Particularly notable were major losses from hurricanes in the US and other natural disasters as well as reserves set aside for possible losses from Russia's war on Ukraine. The total net expenditure on major losses for Hannover Rück amounted to TEUR 938,758. In addition, expenditures were incurred from losses in connection with the Covid-19 pandemic as well as late reported claims from prior years.

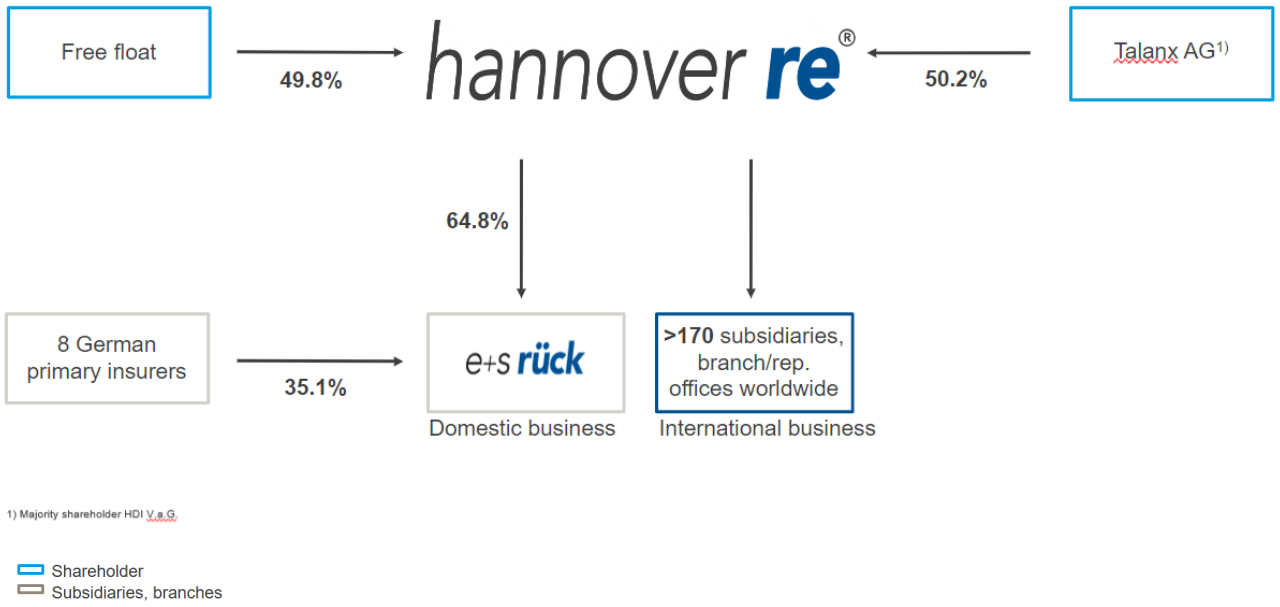
Ordinary income from our investments, including interest on deposits, amounted to TEUR 1,525,453. Gains on the disposal of investments were realized in a net amount of TEUR 745,076. Among other things, the sale of our portfolio of listed shares had a positive effect. In the case of alternative investments, portfolios were transferred to a joint venture with Münchener Rückversicherungs-Gesellschaft AG, particularly in the sector of unlisted corporate investments. Offsetting effects resulted mainly from the sale of fixed-interest securities in the course of reallocations in our loan portfolios and from general portfolio maintenance. Write-downs on investments amounted to TEUR 157,046. Overall, net investment income increased to TEUR 1,941,017.

The profit on ordinary activities improved by 5.8% to EUR TEUR 820,989. The year under review closed as forecast with a profit for the year that amounted to TEUR 752,951.

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 HDI-Platz 1, 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.

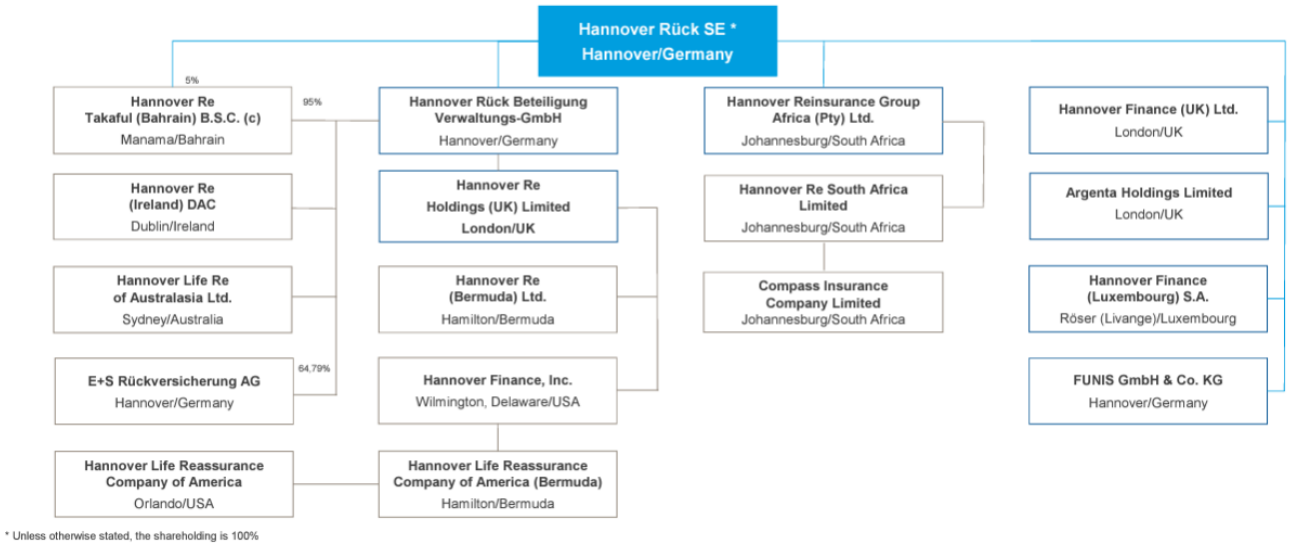
A.1.4 Group structure

This report refers to Hannover Rück on a stand-alone basis. As Hannover Rück 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 3,519 staff.

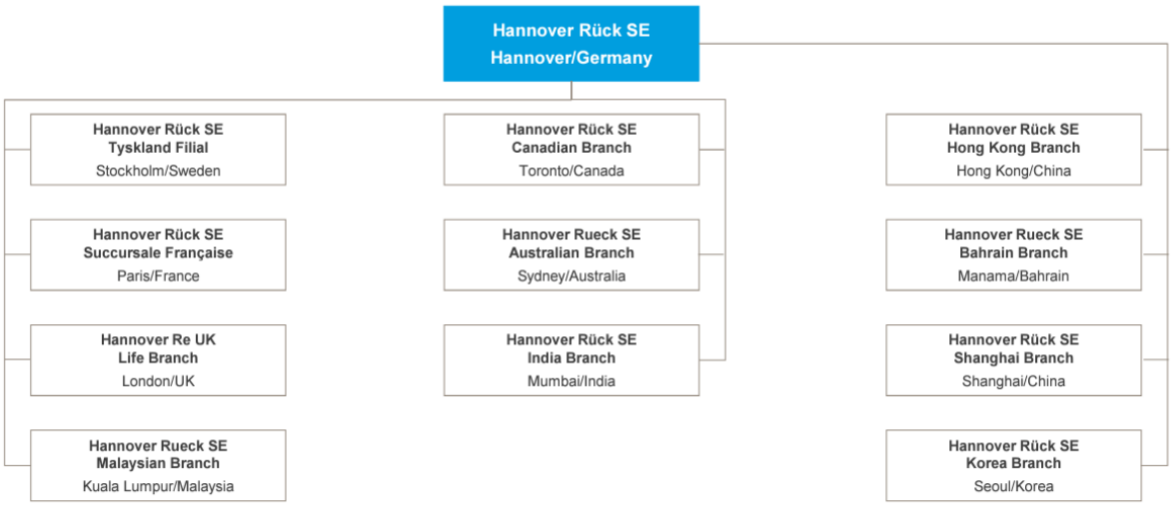
Subsidiaries and branches of Hannover Rück SE are presented in the following charts.

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., Röser/Luxembourg
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 Africa Limited, Johannesburg/South Africa
Hannover Re South 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
YOUPLUS Holding AG Holding (CH) AG, Freienbach/Switzerland
HANNOVER Finanz GmbH, Hannover/Germany
Kaith Re Ltd., Hamilton/Bermuda
WeHaCo Unternehmensbeteiligungs-GmbH, Hannover/Germany
FLS Group AG, Baar/Switzerland
Meribel Mottaret Limited, St. Helier/Jersey
FinLeap GmbH, Berlin/Germany
HAPEP II Komplementär GmbH, Hannover/Germany

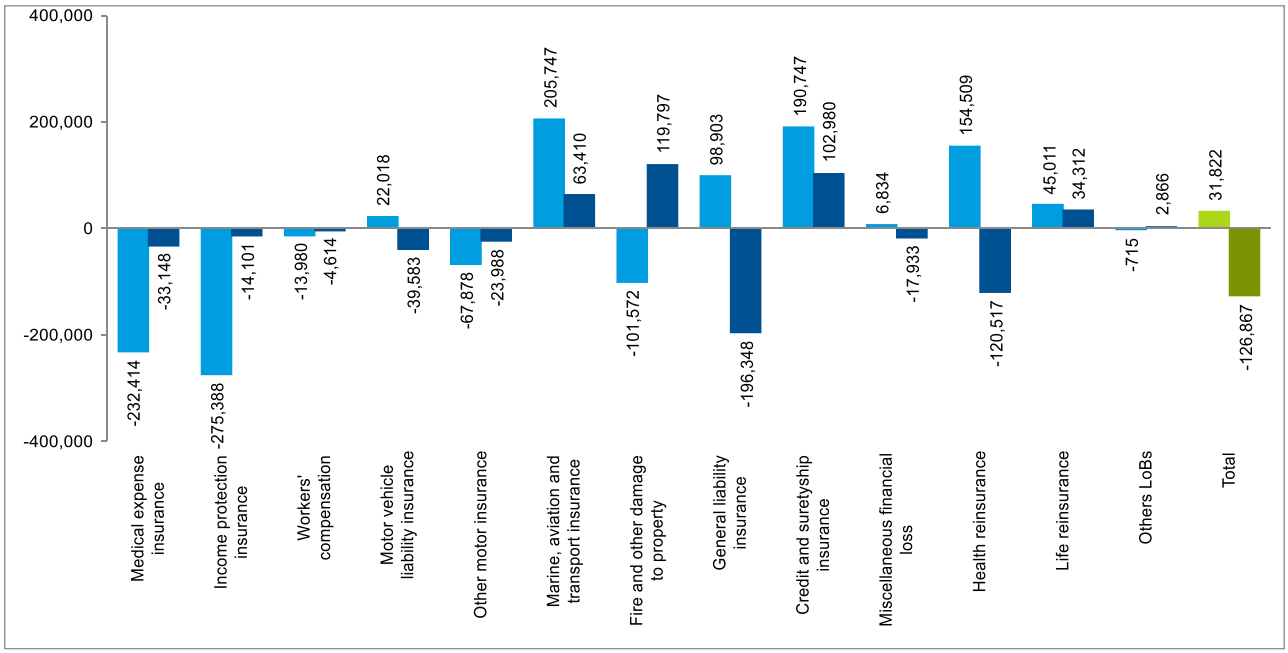
HR AI Komplementär GmbH, Hannover/Germany
Hannover RE AA PE Partner III GmbH & Co. KG, Hannover/Germany
Hannover Re Global Holding GmbH, Hannover/Germany
MR Beteiligungen 23. GmbH, Munich/Germany
Hannover America Private Equity Partners II GmbH & Co. KG, Hannover/Germany
HAPEP II Holding GmbH, Hannover/Germany
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
mertus 313. GmbH, Frankfurt/Germany
Star Grafton One S.à r.l., Luxemburg/Luxemburg
cor F 25. GmbH & Co.KG, Berlin/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 (Europe) Limited, Dublin/Ireland
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 18.127.967 (previous year: TEUR 14,956,289) and technical expenses of TEUR 18.096.146 (previous year: TEUR 15,083,156), Hannover Rück booked a total technical result in accordance with the German Commercial Code of TEUR 31.822 in the 2022 financial year after TEUR -126,867 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 2021 and 2022 is as follows:

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



Measured in terms of premium volume and total technical result in the 2022 financial year, the following lines of business are most important: marine, aviation and transport insurance (TEUR 205,747), credit and surety insurance (TEUR 190,747), health reinsurance (TEUR 154,509), general liability insurance (TEUR 98,903), life reinsurance (TEUR 45,011) and, conversely, income replacement insurance (TEUR -275,388), health insurance (TEUR -232,414) and fire and other property insurance (TEUR -101,572).

In the marine, aviation and transport insurance line, with an increase in net premiums earned (TEUR 677,019) after (TEUR 490,790) and a moderate increase in operating expenses, the expenses for insurance claims rose relatively strongly. The technical result increased by TEUR 142,337 to TEUR 205,747.

In the credit and surety insurance line, the net earned premium decreased. Operating expenses decrease significantly. With a decrease in expenses for insurance claims in line with the decline in premiums, an underwriting profit of TEUR 190,747 results, compared to TEUR 102,980 in the previous year.

The health reinsurance segment shows a slightly increased premium volume for the reporting period TEUR 1,724,673 (previous year: TEUR 1,651,392). The expenses for insurance claims (net) amounted to TEUR 1,381,451, the change in other insurance reserves (net) was TEUR 59,669 and the expenses for insurance operations (net) were TEUR 248,382. For the reporting period, this leads to a strongly improved insurance result of TEUR 154,509 compared to the previous year. This is mainly due to a decrease of Covid-19 claims in the previous year.

In 2022, net earned premiums in the general liability insurance line increased to TEUR 2,657,386 after TEUR 2,092,833 in the previous year. This was primarily due to growing US business. The reserve positions were characterised by a low IBNR position in 2022 compared to 2021. This led to a strongly improved technical result of TEUR 98,903 compared to TEUR -196,348.

The life reinsurance business has a pronounced international focus. We write our business on all continents and, thanks to our good network, are often a local contact. In addition to traditional mortality-oriented life reinsurance business, we also write financial solutions business and longevity risks worldwide. Overall, net premiums earned of TEUR 3,324,051 increased compared to the previous year (TEUR 3,103,982). Claims incurred (net) amounted to TEUR 3,031,624 and operating expenses (net) were TEUR 510,696. Taking into account the change in other technical provisions (net) of TEUR 61,287, the technical result increased slightly to TEUR 45,011. The main driver for the improvement in the result is a decrease of Covid-19 charges from South America, South Africa and the US in the previous year.

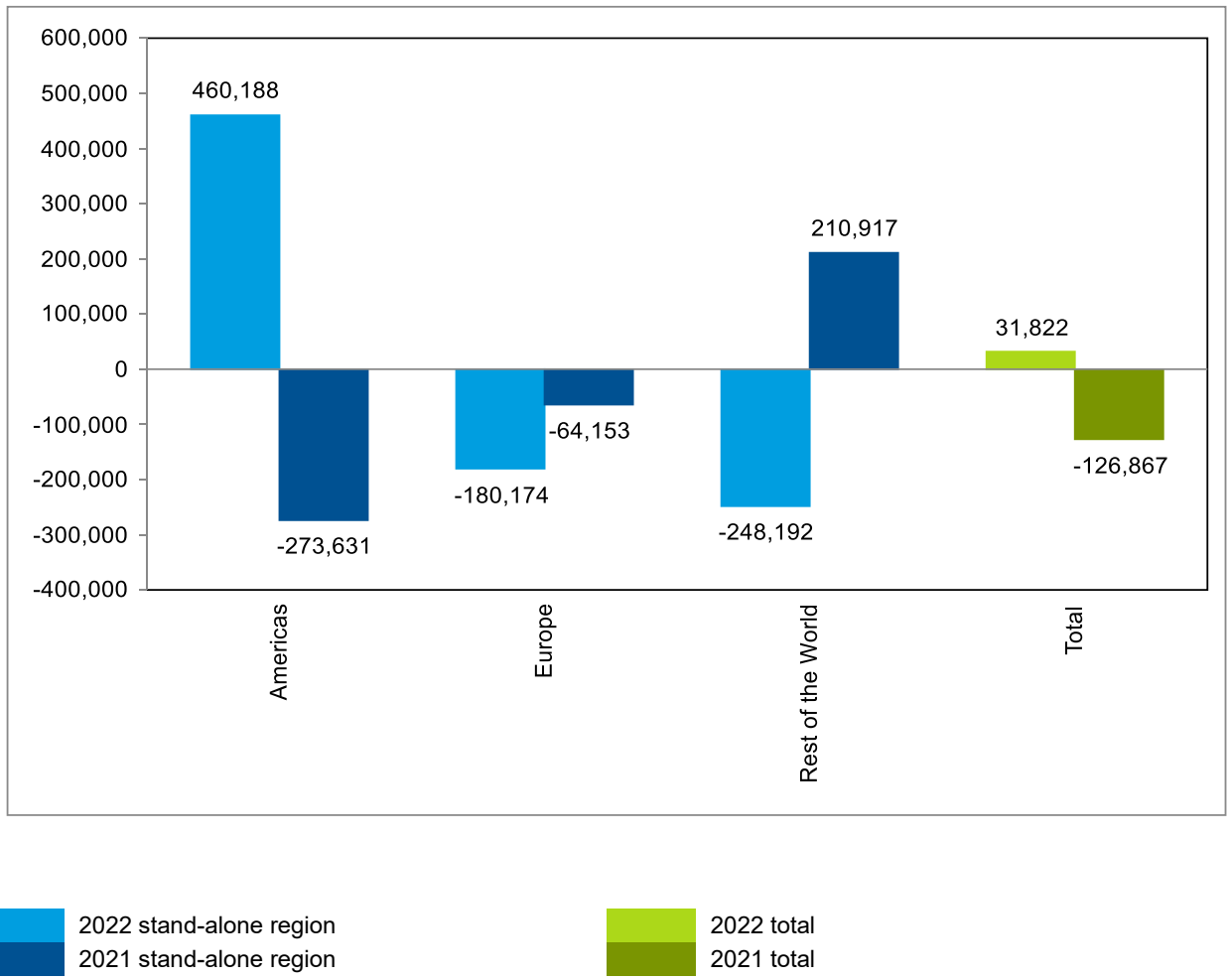
The medical expenses and income replacement insurance lines, with net premiums earned of TEUR 102,102 and TEUR 410,168 respectively, are characterised by Covid-19 burdens from Thailand and Taiwan. These mainly lead to a significant deterioration of the technical result from TEUR -33,148 to TEUR -232,414 for medical expenses insurance and TEUR -14,101 to TEUR -275,388 for income replacement insurance.

Above all, growing US and Group business as well as increases in the Advanced Solutions business segment led to an increase in net earned premiums of TEUR 5,912,465 in the fire and other property insurance segment after TEUR 4,237,490. In relation to this increase, a slightly higher loss ratio was recorded. The claims ratio increased due to a higher allocation to the IBNR and increased major claims burden, which in total increased compared to the previous year. This results in a technical result of TEUR -101,572 after TEUR 119,797.

Other financial losses and other business interruptions in particular are reported under the miscellaneous financial losses line. With an increase in net earned premiums from TEUR 159,217 to TEUR 203,463, the expenses for insurance claims are almost unchanged at TEUR 120,148. 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 improved overall to TEUR 31,822 compared to TEUR -126,867 in the previous year. In America, the result improved from TEUR -273,631 to TEUR 460,188. The result in the rest of the world developed in the opposite direction (TEUR -248,192 compared to TEUR 210,917) and in Europe, the result also deteriorated to TEUR -180,174 compared to TEUR -64,153.

In the rest of the world, the result deteriorated mainly in the medical expenses and income replacement insurance line due to Covid-19 charges in Thailand and Taiwan. In America, the premium growth is also reflected in the positive result development.

A.3 Investment Performance

As a reinsurance company, we naturally focus primarily on value preservation when managing our investments and attach great importance to the stability of the resulting return. We therefore base our investment portfolio on the principles of a balanced risk/return ratio and broad diversification. With an overall low-risk mix, our investments reflect both the currency and maturity composition of our liabilities. Our portfolio currently contains a high proportion of fixed-income securities, so that credit and spread risks account for the highest proportion of market risk.

Against the background of the continuing challenging situation on the global financial markets, we are very satisfied with the performance of our investments. The investment environment, which has been challenging time and again in recent years, was again very volatile in the reporting period. In particular, the Russian war of aggression in Ukraine and the continuing effects of the Covid-19 pandemic over the course of the year, as well as the sharp rise in inflation, posed and continue to pose particular challenges to the global economy. Nevertheless, we were able to further improve on the already very good result of the previous year.

Ordinary investment income including interest on deposits amounted to TEUR 1,525,453 (TEUR 1,505,724). Ordinary income from fixed income securities amounted to TEUR 625,965 (TEUR 478,465). Gains on the disposal of investments were realized in a net amount of TEUR 745,076 (TEUR 280,428). Among other things, the sale of our portfolio of listed shares in the first two quarters had a positive impact of TEUR 71,845 (TEUR 36,350). In the alternative investments, portfolios were transferred to a joint venture with Münchener Rückversicherungs-Gesellschaft AG, particularly in the sector of unlisted corporate investments. This resulted in the disclosure of pro rata hidden reserves in the amount of TEUR 1,002,401. Offsetting effects in the reporting period resulted mainly from the sale of fixed-income securities in the course of reallocations in our loan portfolios and from general portfolio management. In this context, we realized net hidden losses totaling TEUR 443,484. In the first quarter, we sold parts of our holdings of Russian and Ukrainian bonds. Overall, this enabled us to further strengthen both our liquidity position and the return on new investments and reinvestments.

Write-downs on investments amounted to TEUR 157,046 (TEUR 31,616) and were mainly attributable to bearer bonds held as fixed assets. These were mainly Russian or Ukrainian issuers or issuers from the real estate sector in China. We recognized impairments of TEUR 50,742 (TEUR 0) on deposits with ceding companies. In view of increased market values, write-downs were offset by write-ups of TEUR 3,395 (TEUR 5,991) on investments written down in previous periods. Overall, net investment income increased to TEUR 1,941,017 (TEUR 1,687,418).

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
Property, plant & equipment held for own use	2,698		
Property (other than for own use)	597	2,286	
Holdings in related undertakings, including participations	633,445	1,038,837	
Equities - listed			
Equities - unlisted			
Government Bonds	249,734	27,909	2,865
Corporate Bonds	320,423	7,564	426
Structured notes			
Collateralised securities	28,569		
Collective Investments Undertakings	35,420	88,526	49
Derivatives	30,881	85,000	
Loans	8,286	202	7
Deposits other than cash equivalents	37,537		48
Deposits to cedants	176,786		
Cash and cash equivalents	1,085		
Total	**1,525,461**	**1,250,324**	**3,395**

Investment expenses

in TEUR	Write-downs	Realised losses	Other expenses
Property, plant & equipment held for own use	-540		-3,275
Property (other than for own use)	-128		-502
Holdings in related undertakings, including participations	-500	-1	
Equities - listed			
Equities - unlisted			
Government Bonds	-67,103	-421,550	-22,887
Corporate Bonds	-34,235	-55,566	-15,449
Structured notes			
Collateralised securities		-1,187	-1,046
Collective Investments Undertakings	-3,351	-771	-2,531
Derivatives	-3	-25,336	-126,846
Loans	-352	-831	-191
Deposits other than cash equivalents	-93	-6	-3,292
Deposits to cedants	-50,742		
Cash and cash equivalents			-97
Total	**-157,047**	**-505,248**	**-176,116**

Other expenses include 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	2022 Total investment income	2022 Total investment expenses	2022 Investment per-formance	2021 Total investment income	2021 Total investment expenses	2021 Investment per-formance
Property, plant & equipment held for own use	2,698	-3,815	-1,117	2,582	-2,560	22
Property (other than for own use)	2,883	-630	2,253	675	-562	113
Holdings in related undertakings, including participations	1,672,282	-501	1,671,781	859,630	-10,707	848,923
Equities - listed						
Equities - unlisted						
Government Bonds	280,508	-511,540	-231,032	317,796	-95,952	221,844
Corporate Bonds	328,413	-105,250	223,163	313,918	-52,453	261,465
Structured notes						
Collateralised securities	28,569	-2,233	26,336	17,197	-978	16,219
Collective Investments Undertakings	123,995	-6,653	117,342	183,618	-11,894	171,724
Derivatives	115,881	-152,185	-36,304	46,467	-30,533	15,934
Loans	8,495	-1,374	7,121	1,772	-292	1,480
Deposits other than cash equivalents	37,585	-3,391	34,194	26,852	-1,002	25,850
Deposits to cedants	176,786	-50,742	126,044	142,882	-18,968	123,914
Cash and cash equivalents	1,085	-97	988	29	-98	-69
Total	**2,779,180**	**-838,411**	**1,940,769**	**1,913,418**	**-225,999**	**1,687,418**

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	724.145
Total	**724.145**

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	2022	2021
Exchange rate gains	43,155	168,870
Income from sale of renewal rights		42,520
Profit from services	34,876	35,557
Income from guarantees given	7,062	6,932
Separate value adjustments on accounts receivable and retrocessions	41,214	3,628
Release of non-technical provisions	3,475	2,553
Interest pursuant to § 233 a AO (Fiscal Code)	15,166	21,093
Allocated investment return	8,742	18,555
Income from tax refunds	7,629	1,840
Income from reinsurance contracts	1,558	1,602
Profit from joint ventures		5,573
Profit from clearing transactions	1,089	3,310
Amounts realised	54	187
Reimbursement of expenses	295	282
Income from discounting pursuant to § 277 (5) HGB (Commercial Code)	9	7
Other income	2,939	2,940
Total	**167,263**	**315,449**

Other expenses

in TEUR	2022	2021
Financing interest	86,500	76,441
Exchange rate losses	228,541	89,701
Deposit interest	93,136	62,492
Expenses for the company as a whole	80,461	68,539
Expenses from services	35,561	36,460
Separate value adjustments on accounts receivable and retrocessions	14,105	10,435
Expenses for joint ventures	11,250	7,219
Interest charges on old-age pension scheme	3,352	2,399
Expenses for letters of credit	2,955	2,302
Expenses from reinsurance contracts	462	1,726
Write-downs on accounts receivable	2,703	685
Interest charges from reinsurance transactions	532	205
Compounding of interest on provisions / expense from compounding pursuant to § 277 (5) HGB (Commercial Code)	9	37
Interest pursuant to § 233 a AO (Fiscal Code)	179	656
Other interest and expenses	6,564	7,070
	566,310	366,367
Less: Technical interest	**1,507**	**9,534**
Total	**564,803**	**356,833**

A.4.2 Significant leasing agreements

There are no significant operating or financing-leasing agreements.

Individual operating leasing agreements exist related to office buildings and other assets.

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 year maximum are permissible.

The following overview shows the allocation of the areas of responsibility to the members of the Executive Board as of 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 IT and Facility Management Human Resources Management Internal Auditing Risk Management & Actuarial Function Group Operations and Strategy Corporate Communi-cations	Asset Management Reinsurance Accounting and Valuation Group Finance Investor and Rating Agency Relations	Property & Casualty Reinsurance: Asia, Australia and Middle East. Germany, Switzerland, Austria and Italy. Latin America and Iberian Peninsula. Run-Off Solutions Agricultural Risks Group Legal Services	Coordination of Property & Casualty Business Group Property & Casualty Reinsurance: North America and Carribean, United Kingdom, Ireland and London Market. Aviation and Marine Credit, Surety and Political Risks Facultative Reinsurance 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 Analytics & Longevity	Life & Health Reinsurance: North America and Bermuda, United Kingdom, 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 the following sections of chapter B.

Supervisory Board

The Supervisory Board consists of nine members appointed by the AGM. Of these nine members, three shall be appointed on recommendation by the employees. The AGM is bound by these recommendations for the appointment of the employees' representatives. Apart from those, the AGM can freely propose candidates. Every member of the Supervisory Board can resign from his membership by adhering to a notice period of one month, without any obligation to specify 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.

The appointment for a successor of a member who has resigned prior to termination of his term is for the remaining 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, to the extent permitted by law.

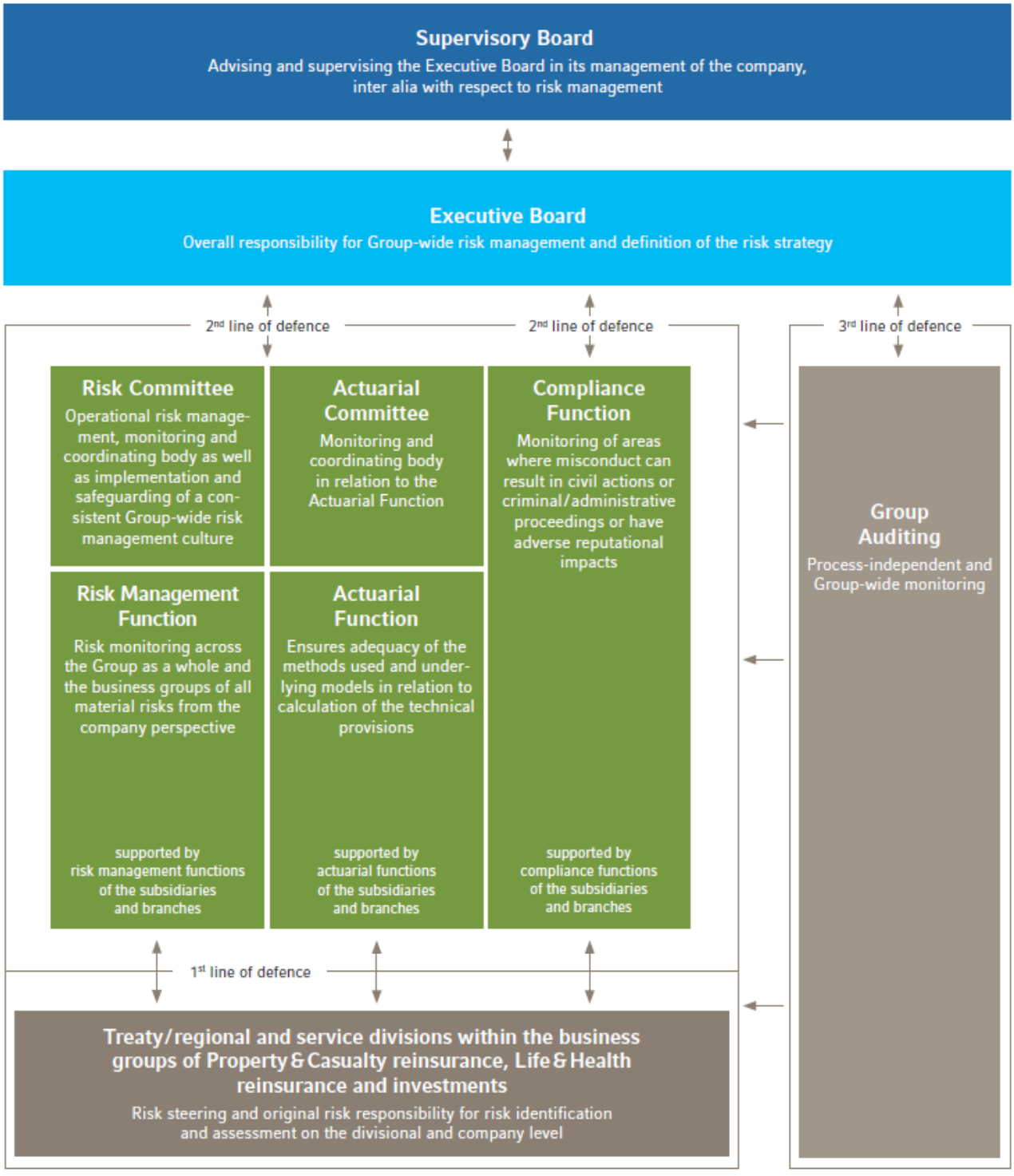
The Supervisory Board received an analysis of the 2021 results in Property & Casualty and Life & Health reinsurance as well as a presentation from the Executive Board covering the profit expectations for the 2022 financial year and the operational planning for the 2023 financial year. Outside the meetings, too, 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. The full Supervisory Board was also kept informed of major events outside the meetings in writing. Dr. Lipowsky, since 1 April 2022 Chairwoman of the Finance and Audit Committee, and prior to her Mr. Haas in the same role as Chairman, engaged in a regular dialogue during 2022 with the Chief Financial Officer and the independent auditor on the topics of financial reporting, auditing of the financial statements and the internal control system. All in all, the Supervisory Board were 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 our statutory responsibilities and those placed upon us by the company's Articles of Association.

No audit measures pursuant to § 111 Para. 2 Sentence 1 of the Stock Corporation Act (AktG) were required in the 2022 financial year.

There were no changes in the composition of the Supervisory Board or its committees in the current year. The term of office of the company's Supervisory Board ends pursuant to § 10 (3) of the Articles of Association of Hannover Rück at the end of the General Meeting that ratifies the acts of management for the 2023 financial year. Nor were any changes made to the composition of the Executive Board in 2022.

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:



Hannover Rück has set up Group-wide risk management functions to safeguard an efficient and effective risk management system. The individual elements of the risk management function are closely interlinked and the roles, tasks and reporting channels are clearly defined and documented. We have implemented the three lines of defence model. The first line of risk steering rests with market and market-supporting departments on the divisional or company level. The second line of defence is made up of the risk management functions, the actuarial function and the compliance function. These functions are responsible for process-integrated monitoring and control. The third line of defence is the process-independent monitoring performed 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 composed of 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 Executive Board remuneration is stated on the basis of the remuneration granted and owing. The total remuneration received by the Executive Board of Hannover Rück amounts to TEUR 8,640.

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 1,035.

B.1.2.3 Remuneration of staff and senior executives

The remuneration system for senior executives below the Executive Board (management levels 2 and 3) and for key function holders in Germany belonging as a matter of principle to the ranks of senior executives consists of a fixed annual salary and variable remuneration. This is comprised of short-term variable remuneration, the annual cash bonus and long-term share-based remuneration, 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 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 50.2% in Hannover Rück. 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 and its subsidiary E+S Rückversicherung AG is based on a cooperation agreement. A retrocession by Hannover Rück to E+S Rückversicherung AG exists in Property & Casualty reinsurance. E+S Rückversicherung AG and Hannover Rück bear exclusive responsibility for German business and for international markets respectively.

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 Re Group and the members of the governing bodies or their related parties 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.

No key functions were outsourced in 2022.

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 detailed 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

Robust governance and strong risk management, integrated compliance and corporate social responsibility establish the foundation for our business operations. This is enshrined in our company strategy.

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.

Our solvency ratio is subject to a limit of 180% and a threshold of 200%. Countermeasures would be triggered if the solvency ratio were to fall below this threshold. These indicators are monitored using our internal capital model and the Executive Board is informed quarterly about adherence to these key parameters as part of regular reporting. The necessary capital 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 – a stochastic enterprise model - is our central tool. It covers all subsidiaries and business groups of Hannover Rück. The core 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 Rück 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. Independently from the regulatory reporting requirements, Hannover Rück calculates the capital requirements with a full internal model. This leads to desired capital requirements for market risks, underwriting risks, counterparty default risks and operational risks.

We hold capital above all in order 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 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. In this context, both Standard & Poor's and A.M. Best consider Hannover Rück's risk management to be a very important aspect in the evaluation of financial strength and rate it as very strong.

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. The model change policy remained unchanged as well.

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

An overview of 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 (cf. section B.3.2). 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. Changes to the risk management function during the reporting period include the strengthening of cyber and pandemic exposure management standards, the strengthening of new product processes, the further integration of climate change analysis in regular risk management processes as well as the strengthening of IT security standards.

B.3.1.5 Key elements of our risk management system

Our Risk and Capital Management Guideline including our risk strategy 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 risk 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. Those individual risks that can be quantitatively measured as well as 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 in particular the indicators derived and calculated from the risk-bearing capacity, along with other risk-related key figures. 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 mostly 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 internal 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, in the context of committee and project work, through 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 within specific 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 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
- Sustainability and reputational, liquidity, strategic and emerging 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.3.1.5.

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. Additionally, 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 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 that - because of a material change in risk profile - an ad hoc ORSA report becomes necessary, Hannover Rück has defined specific procedural plans and responsibilities.

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

The internal control system (ICS) serves, among other purposes, 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. The ICS consists of systematically structured organisational and technical measures and controls within the company. 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. 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 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 program, 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 2022, Hannover Rück revised its Code of Conduct. Both English and German versions of the new Code of Conduct are published on the Hannover Rück website. The publication of the document in further languages is in preparation.

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 as well as the Compliance Officer (CO).

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 CO 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 subjects of particular compliance relevance 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 CO 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 subjects of particular compliance relevance 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 is based on the compliance risk matrix which allows for a systematic evaluation and assessment of individual compliance risks. The risk assessment is thereby the result of the combination of probability of occurrence and impact (consequence).

Compliance programme

Every year, the CO prepares a compliance plan for the following year. This plan determines where the key areas of compliance activity should be in the subsequent year. The plan takes into account all relevant areas of activity of the company and the compliance risk situation. The CO implemented a compliance plan for 2022.

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 pertinence 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.

The appointed CO for Hannover Rück bears particular responsibility for monitoring of 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 CO 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 CO maintains constant contact and exchange with the further members of the compliance function both in Germany and abroad.

As the holder of the key function compliance, the CO reports directly to the members of the Executive Board responsible for the Legal and Compliance department. Reports are provided on relevant compliance incidents. 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 preparation of the Hannover Rück annual compliance report to be presented to the Supervisory Board in its Finance & Audit Committee meeting, the CO and the compliance staff assess the monitoring plan of the Hannover Office as well as the compliance reports by 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. With publication of the new Code of Conduct, a new training on compliance topics was installed in 2022 for all staff.

Compliance monitoring and improvement

By way of continuous monitoring, the CO 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 evaluates adequacy and effectiveness of implemented measures to mitigate identified compliance risks on an annual basis. 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 discharged by the department Group Auditing (GA). GA renders independent objective audit services, incl. evaluations and recommendations that help in particular to ensure external and internal compliance of processes, the internal control system (ICS) and other areas of the Company, identify potential scope for improvements and hence generate added value. Along with the auditing activity, GA provides value-adding inputs as an internal consultant in its interconnected cooperation with other units and functions of the Company.

The Executive Board guarantees that GA is not bound by any instructions in the planning of audits, conduct of audits, reporting and evaluation of audit results. In order to safeguard this independence the Head of GA, who is at the same time the key function holder for the internal auditing of the Company pursuant to § 30 as well as § 47 No. 1 VAG, reports directly to the Executive Board. GA team members are not employed in other areas of the Company and only perform tasks that are in conformity with the GA "Internal Audit Charter". This charter, which has been approved by the Executive Board, also sets out the powers of the internal audit function.

The GA team encompasses staff with various training concentrations, university degrees and supplementary vocational examinations in order to cover the wide specialist spectrum of (audit) tasks. The members of staff in GA have a broad mix of professional experience both internally (in specialist terms especially from the underwriting side) and externally (especially from external auditing and consulting). If a need for special capacity or expertise arises, GA can additionally involve internal experts and/or appropriate external resources.

Tasks

GA supports the Executive Board in the achievement of objectives by evaluating all business centres, processes and systems of the Company on a targeted, independent and objective basis through a systematic, risk-oriented approach in the planning and conduct of audits and by contributing to further development. Audit results are reported directly to the full Executive Board. The evaluation of individual findings and the overall evaluation of the audit result are the exclusive responsibility of GA. The classification scheme defined by GA for this purpose ensures an objective basis for the evaluations made.

Reporting lines

The internal audit function reports its audit results and recommendations directly to the Executive Board on an ongoing basis through written audit reports, or immediately in the case of serious findings, as well as annually in the form of the GA Annual Report. Implementation of the recommendations/measures agreed in the audits is monitored by GA at the due dates.

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 the worldwide Property & Casualty reinsurance, the Board member responsible for the risk management coordination of the worldwide Life & Health reinsurance, the head of the AF, head of the department responsible for the valuation of technical provisions for Property & Casualty reinsurance, head of the department in risk management dealing with Life & Health reinsurance, and the head of the department in risk management dealing with Property & Casualty reinsurance business.

B.7 Outsourcing

Hannover Rück has a guideline in place, which governs 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. materiality assessment 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 Rück 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 13 February 2023 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 Group Operations & Strategy – Costs, Organisation & Processes, 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.

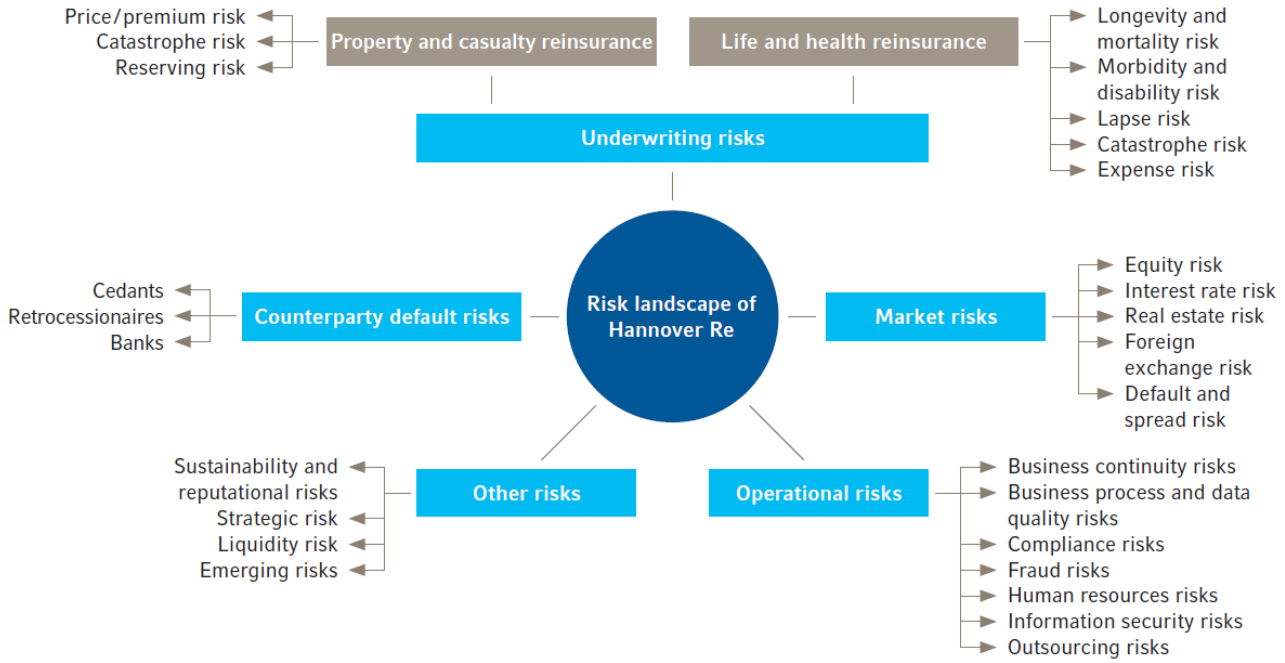
B.8.2 Other information

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 Rück



In the context of its business operations Hannover Rück is confronted with 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.

Currently, 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 mortality 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 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.

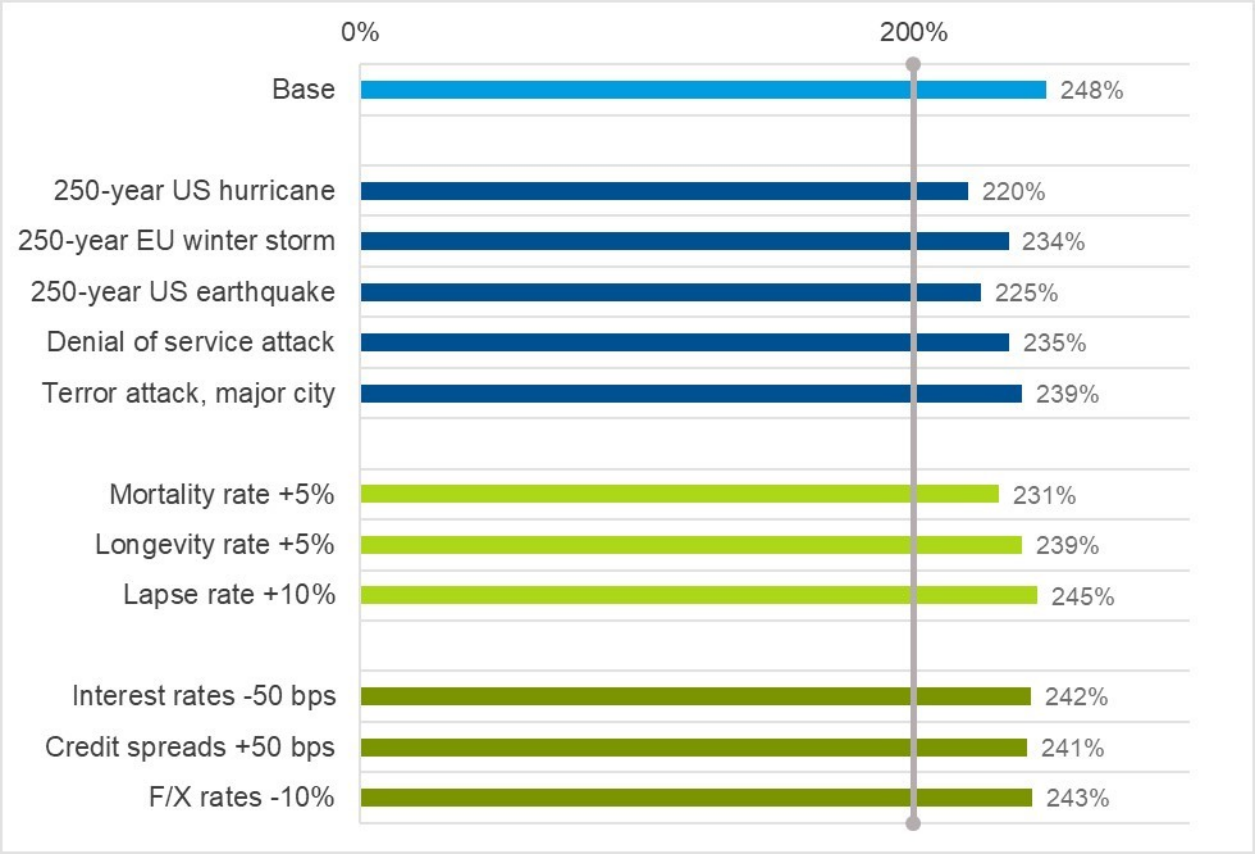
In the course of the mid-term planning, we monitor the business development over a time horizon of five years. Besides the basic scenario, we also behold alternative scenarios in respect of the evolution of (re)insurance markets including different impacts related to business growth and performance. 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 based on the Solvency II ratio for year-end 2021 are presented in the following graph.

Sensitivities of the Solvency II ratio YE 2021
Values in percent



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 section, we present the current risk situation per risk category.

C.1 Underwriting risk

C.1.1 Underwriting risk Property & 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 conserve capital. Furthermore, it is important to utilize the available risk budgets based on the risk management parameters of the Hannover Rück and to steer the acceptance of risks systematically through the existing central and local underwriting guidelines. Our conservative reserving level is a key factor in our risk management, too.

For risk management purposes 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). Particularly 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	2022	2021
Premium risk (including catastrophe risk)	3,955,464	3,746,100
Reserve risk	3,147,743	3,087,605
Diversification	-1,657,733	-1,582,466
Underwriting risk property and casualty	**5,445,473**	**5,251,239**

The underwriting risks in Property & Casualty reinsurance increased primarily as a consequence of higher premium and reserve volumes. The higher volumes are driven by the business growth, the large loss expenditure and associated higher reserves as well as the stronger US dollar.

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 (with a confidence level of 99.5%) for five of our largest natural hazards scenarios:

Required risk capital for five of our largest natural hazards scenarios

in TEUR	2022	2021
Hurricane US	2,198,974	2,298,474
Earthquake US West Coast	1,578,537	1,739,357
Winter storm Europe	908,826	1,087,621
Earthquake Japan	1,199,039	1,441,183
Earthquake Chile	1,304,870	1,329,944

The capital requirements decreased compared to last year due to different effects. Increases due to stronger USD and planned capacities for 2023 is offset by the decrease from renewal of retrocessions. 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 experience of our own specialist departments.

As part of this process for managing risks connected with natural catastrophes, the Executive Board defines the risk appetite and the limit for natural perils once a year on the basis of the risk strategy. Risk management considers numerous scenarios and extreme scenarios, determines their effect on portfolio and performance data, evaluates them in relation to the planned figures and identifies alternative courses of action.

For the purposes of risk limitation, maximum amounts are also stipulated for various extreme loss scenarios; 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.

C.1.2 Reserve risk

The reserve risk, i.e. the risk of under-reserving of incurred or foreseeable losses, is a high priority in our risk management. We attach importance to maintaining a conservative reserving level. In order to counter the risk of under-reserving we calculate our loss reserves based on our own actuarial estimations and establish, where necessary, additional reserves supplementary to those posted by our cedants for reported claims as well as reserve for losses that have already occurred but have not yet been reported to us. Liability claims have a major influence on the latter reserve. Reserves are calculated on a differentiated basis according to lines and regions.

In calculating the reserves, we use actuarial methods based on run-off triangles. Run-off triangles show the changes in the reserve over time due to paid claims and in the recalculation of the reserves to be established at each balance sheet date. Their adequacy is monitored by the actuarial departments. Our own actuarial calculations regarding the adequacy of the reserves are also subject to annual quality assurance reviews in the form of an external analysis.

In order to partially hedge inflation risks Hannover Rück 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.

Whole Account Protection 2022

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 2022

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 2022

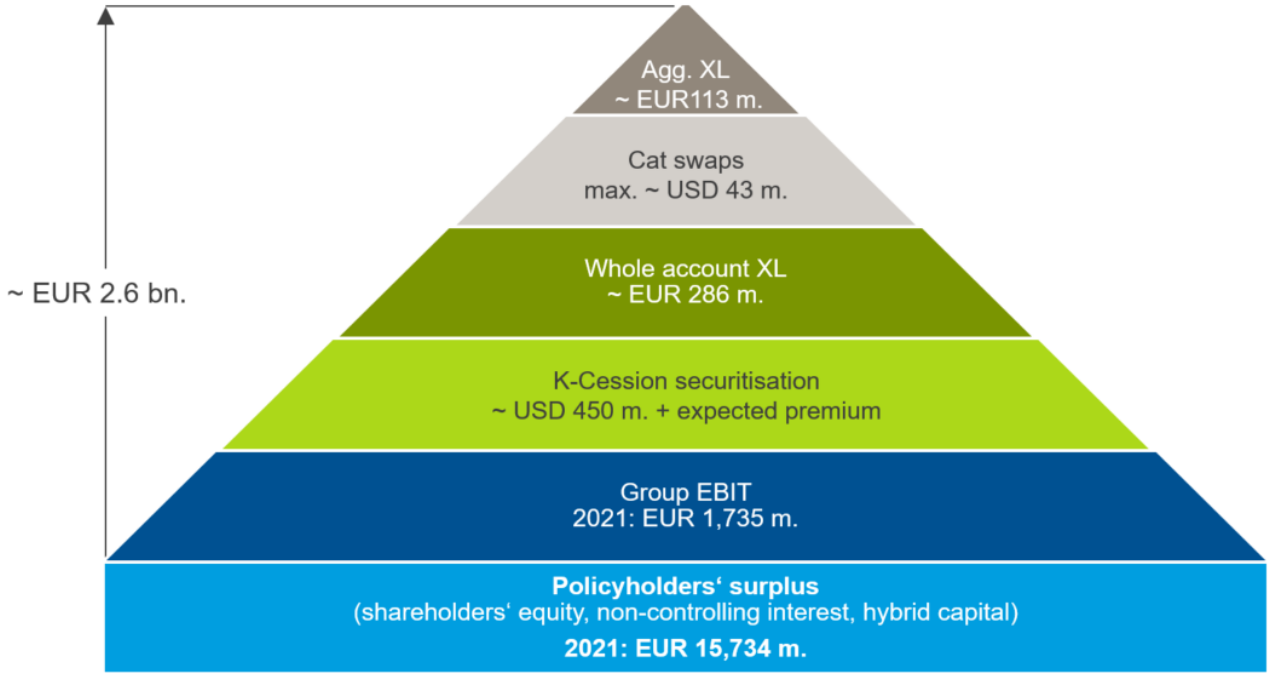
By way of its “K-transactions”, Hannover Rück has raised underwriting capacity for catastrophe risks in the capital market. The “K-Cession”, which was placed with investors in North and South America, Europe and Asia, involves a quota share cession on worldwide natural catastrophe business as well as 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 and therefore there exists no default risk for Hannover Rück.

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)

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.



Additional retrocession for Marine, Aviation, Cyber and facultative reinsurance is in place.

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.

Capacities per scenario and treaty department are derived from the global and local risk tolerances. The capacity matrix forms the operational control tool and ensures a consistent top-down approach.

During the planning phase starting in June 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 & Health

All risks directly connected with the life or health 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 those recorded in recent years in connection with the Covid-19 pandemic.

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 because the contracts are normally taken out for different regions, age groups and individuals. Morbidity risks are also playing an increasingly significant role. The required risk capital with a confidence level of 99.5% for underwriting risks in Life & Health reinsurance breaks down as follows:

Required risk capital for underwriting risks Life & Health reinsurance
Required risk capital at a confidence level of 99.5%

in TEUR	2022	2021
Mortality risk (incl. catastrophe risk)	1,791,678	2,116,164
Longevity risk	1,445,755	2,502,396
Morbidity and disability risk	1,369,829	1,669,791
Lapse risk	379,592	353,451
Expense risk	157,569	162,785
Diversification	-2,636,728	-3,480,161
Underwriting risk life and health	**2,507,694**	**3,324,426**

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 decreased primarily due to the sharp rise in interest rates. The reduction is particularly marked for longevity risk but also applies to mortality and morbidity risk.

A risk concentration in Life & Health reinsurance business arises from mortality and morbidity risks, followed by longevity 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 was carried out in 2021 and 2022. It will be followed-up 2023. 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 at the subsidiary level. 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 & 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. The Life & Health business group expects a payment from this cover in 2023 due to Covid-19 claims.

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 that 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 the 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 Rück'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 greatest possible matching of payments from fixed-income securities with the projected future payment obligations from our insurance contracts. Market risks derive from the investments managed by Hannover Rück 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	2022	2021
Credit and spread risk	2,918,553	2,686,343
Interest rate risk	963,531	1,023,441
Foreign exchange risk	1,750,573	1,599,113
Equity risk*	1,895,683	1,899,606
Real estate risk	866,944	694,116
Diversification	-3,454,659	-3,290,128
Market risk	**4,940,625**	**4,612,492**

The increase in market risk is a consequence of new investments and higher market values for private equity and real estate. Wider spreads and larger volumes of fixed-income securities are further factors driving the risks. On the other hand holdings in listed equity have been sold to a large extent, resulting in a decrease in equity risk.

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 unambiguously defined in conformity with our risk appetite and trigger specified information and escalation channels if a corresponding fair value development is overstepped.

Interest rate markets were again highly volatile over the course of the year under review. In contrast to the previous years, which had seen continued declines in the rate level, rates moved sharply higher in the year under review across all maturities in our main currency areas. Furthermore, appreciable increases in risk premiums were observed for bonds issued by developing countries and lower-quality issuers, most notably from the second quarter onwards. Overall, however, a marked decrease 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 course of the year under review on account of interest rate and spread volatility as well as central bank moves in response to inflationary tendencies. In accordance with our guidelines, the Investment Committee therefore regularly discussed the potential implications for our invested asset classes and the current portfolio

composition in each case. Thanks to the broad diversification and conservative posture of our investments, there was no need to modify the strategic orientation of our portfolios towards a more defensive investment strategy during the reporting period.

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 Rück 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 Rück. 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 1.3% (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	2022	2021
Equity securities and equity funds	Share prices -10%	-1,036	-22,806
	Share prices -20%	-2,072	-45,612
	Share prices +10%	1,036	22,806
	Share prices +20%	2,072	45,612
Fixed-income securities	Yield increase +50 basis points	-593,207	-658,740
	Yield increase +100 basis points	-1,152,376	-1,285,348
	Yield decrease -50 basis points	627,245	690,873
	Yield decrease -100 basis points	1,288,527	1,413,879
Real Estate	Real estate market values -10%	-5,241	-5,656
	Real estate market values +10%	5,241	5,656

Further significant risk management tools – along with the various stress tests used to estimate the loss potential under extreme market conditions – include sensitivity and duration analyses and our asset / liability management (ALM). The internal capital model provides us with quantitative support for the investment strategy as well as a broad diversity of VaR calculations. In addition, tactical duration ranges are in place, within which the portfolio can be positioned opportunistically according to market expectations. The parameters for these ranges are directly linked to our calculated risk-bearing capacity. It should be borne in mind that 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. Their relevance to our investments was, however, very slight because we acted on market opportunities early in the year under review for extensive sales of equity funds in what was already our minimal portfolio of equities and equity funds. Our exposure to the private equity market remains unchanged. Changes in fair value here tend to be prompted less by general market conditions and more by entity-specific assessments. The risks are associated principally with the business model and profitability and less so with the interest rate component in the consideration of cash flow forecasts.

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 have grown in importance for our portfolio in recent years 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.

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 are hedged to some extent using forward exchange transactions. Hannover Rück holds further derivative financial instruments to hedge interest rate risks from loans taken out to finance real estate and to hedge inflation risks from the life reinsurance business written by our Australian branch. In addition, Hannover Rück 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 collateralized 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. Insurance derivatives connected with the

technical account are also recognised under the investments due to IFRS financial reporting requirements.

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 Rück 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 Counterparty default risk

The counterparty default risk consists primarily of the risk of counterparties' complete or partial unwillingness or inability to pay and the associated default on payment. Counterparty default risks exist with respect to cedants, retrocessionaires and in connection with short-term deposits at banks. We address credit risks from fixed-income investments in the preceding section under market risks.

Required risk capital (confidence level 99.5%)

in TEUR	2022	2021
Counterparty default risk	426,917	462,029

The decrease in counterparty default risk mainly stems from a smaller default volume from retrocessionaires.

Our retrocession partners are carefully selected and monitored in light of credit considerations in order to keep the risk as small as possible. This is also true of our broker relationships, which entail a risk inter alia through the potential loss of the premium paid by the cedant to the broker. We minimise these risks, among other measures, by reviewing broker relationships with an eye to criteria such as the existence of professional indemnity insurance, payment performance and proper contract implementation. The credit status of retrocessionaires is continuously monitored. The Security Committee decides on measures where necessary to secure receivables that appear to be at risk of default. This process is supported by a risk management application, which specifies cession limits for the individual retrocessionaires participating in protection cover programmes and determines the capacities still available for short-, medium- and long-term business. Depending on the type and expected run-off duration of the reinsured business, the selection of reinsurers takes into account not only the minimum ratings of the rating agencies Standard & Poor's and A.M. Best but also internal and external expert assessments. Overall, retrocessions conserve our capital,

stabilise and optimise our results and enable us to act on market opportunities across a broader front, e.g. following a major loss event. A close and regular dialogue with our retrocessionaires gives us a reliable overview of the market and puts 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 %	2022	2021
Total	65.4	69.0
Property and casualty reinsurance	62.0	66.9
Life and health reinsurance	76.5	73.9

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, among other risks, are also relevant to our investments and in Life& Health reinsurance 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 Rück provides a guarantee to clients for a small number of low-risk structured transactions. In this context, it guarantees the payment of liabilities by Hannover Rück 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 Rück (i.e. either at the subsidiary itself as part of the transaction or at Hannover Rück as a consequence of the guarantee), the existence of a guarantee on the part of Hannover Rück has no effect on the underwriting risk from Hannover Rück's Property & Casualty or Life & Health reinsurance business.

C.4 Liquidity risk

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

event that needs to be paid out quickly. The liquid asset reserve stood at EUR 9.1 billion (EUR 6.7 billion) as at the balance sheet date. In addition, we manage the liquidity of the portfolio by checking on each trading day the liquidity of the instruments contained therein. When reinvesting in fixed-income securities in the last quarter of the reporting period, we increasingly invested in instruments with short and long-term maturities while maintaining the average remaining maturity. By expanding the holding of short-term securities we further strengthened our liquidity base. These measures enable us to reduce our liquidity risk.

The “total amount of the expected profit included in future premiums” required by Art. 295 (5) of the Delegated Regulation 2015 / 35 amounts to TEUR 2,568,500 as at 31 December. This value is also available at the Quantitative Reporting Template S.23.01.01, item R0790. We do not use this figure for our liquidity management. However, it has to be stated in this section according to regulatory requirements.

C.5 Operational risk

Operational risk is the risk related to business operations and refers to potential losses arising from inadequate or failed internal processes, human errors, personnel and systems failures, or external events. Within the overall framework of operational risks, we distinguish business continuity risks, business process and data quality risks, compliance risks, fraud risks, human resources risks, information security risks and outsourcing risks.

In contrast to underwriting, market and counterparty risks, 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, evaluation, steering, monitoring and reporting. The assessment 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 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, which either become known through public channels or were reported through a loss data consortium of which we are a member.

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 risk indicators.

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

Required risk capital (confidence level 99.5%)

in TEUR	2022	2021
Operational risk	607,039	610,163

The changes in operational risk can be attributed to updated expert assessments 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 business continuity, compliance, human resources, information security and outsourcing.

Business continuity risks arise from natural or man-made hazards that threaten or disrupt business operations. The risk also includes the continuity of IT infrastructure and services. Our Business Continuity Management (BCM) system reduces the risk through preventive measures, such as an emergency power supply, alternative infrastructures and contingency plans that are regularly tested. A special organisational and operational structure has been set up to deal reactively with a crisis event. This has proven itself, inter alia in connection with the Covid-19 pandemic, and there were no material impacts on our business operations. Overall, our focus in BCM is on the following five scenarios:

- Non-availability/shortage of personnel, e.g. as a consequence of a pandemic
- Loss of the workplace environment
- Failure of local/central IT, e.g. as a result of a cyber-attack
- Failure of external infrastructures / service providers
- Security events (life and limb of employees at risk)

Business process risks are associated with the risk of inadequate or failed 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. As part of our data quality management, we have defined extensive automatic routines that continuously determine data quality in central systems.

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 and interfaces with risk management have been put in place. The set of tools is rounded off with regular compliance training programs. With regard to Russia, a submission requirement and an in-depth review were introduced due to the current situation in order to take into account the increased scope of sanctions. New business with Russian cedants is currently excluded.

Fraud risks refer to the risk that results from intentional violations of laws or rules from own employees and/or from third parties in order to gain an advantage. 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.

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 personnel development and leadership activities. These measures are supported by ongoing talent management and regular employee surveys. Hannover Rück has at its disposal different indicators for the early detection and monitoring of material risks. In view of the increased global competition for talent, a crucial indicator is the continuous monitoring of the internal turnover rate compared to the industry benchmark. In this regard, the talent management initiative supports the implementation and maintenance of the goals we have set.

Information security risks arise, inter alia, out of the risk of inadequate confidentiality, integrity or availability of information as well as impacts from or on other assets such as systems, processes, buildings/premises or persons. By way of example, losses and damage resulting from the unauthorised passing on of confidential information, the malicious overloading of important IT systems or from computer viruses/ransomware are material to Hannover Rück. Given the broad spectrum of such risks, a diverse range of technical 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 aware of such security risks through practically oriented tools provided online in the intranet, by way of training opportunities and through targeted information. Hannover Rück 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 outsourcing management. The ISMS successfully ensured in recent years that there were no significant security incidents. The central document is the “Information Security Policy”, which is valid for all locations worldwide. Together with specific guidelines and standards, it regulates all technical and organisational measures including those relating to the confidentiality, integrity and availability of information assets. Consideration is given to all types of digital and physical information assets. The Executive Board bears overall responsibility for information security. It is supported by the Risk Committee. The Information Risk & Security Committee (IRSC) is a sub-committee of the Risk Committee and is comprised of the Head of Risk Management, the Chief Information Security Officer (CISO) and the Head of IT. The IRSC evaluates and monitors the corresponding risks and steers any conflicts of interest in relation to information and IT security. It acts – in common with the risk management function and the CRO – independently of any instructions. The full Executive Board is provided with information at least annually by way of an information security report and also within the year if necessary. The Risk Committee receives information on a quarterly basis.

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

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

Emerging risks are risks that are in the process of forming or may shortly become relevant due to current developments. Emerging risks evolve gradually from weak signals to unmistakable tendencies. They can directly impact our treaty portfolio in both Property & Casualty and Life & Health reinsurance and influence our investments. A further hallmark is that their risk content cannot be reliably assessed, especially with respect to our treaty portfolio.

Early detection and subsequent evaluation of risks are crucially important when it comes to emerging risks. For this reason, we deploy Hannover Rück's internal, interdepartmental and multi-line expert working group on "Emerging Risks & Scientific Affairs" and we ensure its linkage to risk management. The analyses performed by this working group are used Group-wide in order to initiate any necessary measures. The working group is currently exploring around 20 megatrends so as facilitate the identification and adequate evaluation of not only existing but also emerging risks. Megatrends are defined as developments with a trend cycle of at least 30 years. They are not presently associated with direct impacts on operations, but may potentially evolve in this direction. Megatrends are considered in connection with emerging risks and resulting opportunities. Thus, for example, the megatrend towards a decline in biodiversity can be viewed in conjunction with emerging risks associated with scarcity of resources, air pollution, genetically modified organisms or food security and availability – but also goes hand-in-hand with a need for innovative (insurance) solutions and services. Action on climate change means new or refined technologies, such as renewable energies or hydrogen concepts and their various possible applications, for which insurance coverages are needed.

Another observed trend is urbanisation. The steady increase in urbanisation means the growth and change of cities. Those leaving the countryside and moving to the city are mostly young, hence altering both rural and urban age distributions. Correlated trends such as the ageing society and new types of mobility, increasingly against a backdrop of sustainability, are throwing up major questions. The significance of these trends and the speed of change are compelling the insurance industry to plan which role it wants to play in helping to shape the future. In this context it is important to consider both business opportunities and risks. Given that all this is affected by climate change, people's property – especially when value concentrations form in future megacities – will have to be insured against natural perils. In a worst-case scenario, this could mean that certain regions and risks become uninsurable if adequate urban planning – taking account of natural hazards – is neglected in the spread of large cities around the world. Urbanisation not only means new buildings, technologies and lifestyles that have to be insured; rather, living close together also has implications for people's physical and mental well-being, which is relevant to our portfolio of Life & Health insurance.

Hannover Rück publishes summary position papers on various emerging risks which can be accessed on our website. In the year under review the papers on supply chain risks, technological risks, fracking, pollution and the risk posed by terrorism, among others, were updated.

Hannover Rück, represented by members of staff from Risk Management and other units, is a member of the Chief Risk Officer (CRO) Forum and a constant participant in the CRO Forum's Emerging Risk Initiative, which continuously tracks and analyses various emerging risks, publishes information on megatrends and associated risks and conducts corresponding impact analyses. The megatrends considered include "Ageing and health", "Economic instability", "Environment and climate". "ESG issues", "Changes in the geopolitical landscape", "Technological developments and their influence on society" as well as "Demographic and social change". New topics added in the year under review were "Climate engineering" and "Space risk associated with a low earth orbit". The publications are publicly accessible on the CRO Forum website. An exploration of the carbon

intensity of insured portfolios (“Carbon footprinting methodology for underwriting portfolios”) is also available there.

C.6.2 Strategic risks

Strategic risks derive from a possible imbalance between the corporate strategy of the Hannover Rück and the constantly changing general business environment, for example with respect to evolving regulatory requirements. 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. 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 Sustainability and reputational risks

Reputational risks refer to the risk that the trust put in our company by clients, shareholders, employees or the public at large may be damaged. This risk has the potential to significantly jeopardise the business foundation of Hannover Rück. A good corporate reputation is therefore an indispensable prerequisite for our core business as a reinsurer. Reputational risks may arise out of all business activities conducted by the Hannover Rück. Reputational damage may be caused, inter alia, by a data mishap that becomes public knowledge or financial difficulties on account of an underwriting risk. In addition to the risk identification methods already described, we use a number of different techniques for risk mitigation, such as our defined communication channels (e.g. Crisis Communication Guideline), a professional approach to corporate communications, tried and tested processes for specific crisis scenarios as well as our established Code of Conduct. Above and beyond the general influence that sustainability risks have on a number of other risk categories (outside-in perspective), we also see a correlation between reputational and ESG risks (inside-out perspective). Risk Management and the Group Sustainability & Strategy team work together closely to identify ESG and reputational risks. This applies both to the assessment of ESG risks and to the monitoring of media reports, the analysis of NGO activities and the dialogue cultivated with relevant stakeholder groups.

C.6.4 Important developments

In this section, we describe external developments in 2022 with particular relevance for risk management.

C.6.4.1 Geopolitical risks

The Russian invasion of Ukraine in February 2022 and the ensuing war has far-reaching consequences in Europe and worldwide. Further escalation of the conflict beyond the territory of Ukraine cannot be excluded and would have potentially considerable and far-reaching consequences for the geopolitical order. Fear of Russian aggression has prompted Sweden and Finland to seek NATO membership and thus set aside their long-standing policy of neutrality. Escalation of the conflict – whether due to the nature of the weapons deployed or the involvement

of further parties in the conflict – is an obvious and ever-present danger. Multiple Western countries have additionally imposed sanctions on Russia, which have similarly been implemented by Hannover Rück to the extent that it is affected by them. The impact on trade relations has been extensive. The conflict in Ukraine and its repercussions have, among other effects, driven up prices for energy and raw materials and hence inflation – especially in Europe. Governments in the European Union have taken various actions to alleviate the economic impacts of higher energy costs and to control prices and volumes. Tensions around the Taiwan Strait persist, as was evident on multiple occasions in 2022.

Additionally, clashes have occurred in recent years along the border between India and China. Escalation of such situations remain possible, and could have far-reaching consequences. Risks from armed conflicts are generally excluded in reinsurance treaties but may be covered under special arrangements such as for marine risks. Political risk and political violence covers, among others, are available for other risks from violent conflicts and their consequences. The risk situation for these policies is therefore elevated. Risks stemming from economic tensions can have disruptive effects on supply chains. Until recently, China pursued a strict zero-Covid-19 policy, which was relaxed at the end of 2022. This caused infection rates to rise across the entire country. China also gradually eased its border restrictions, thereby increasingly facilitating the resumption of travel. While the zero-Covid-19 policy was in force, Covid-19-related constraints impacted the Chinese economy and its infrastructure, leading to supply shortages affecting various goods and materials. The effects of these bottlenecks have been gradually alleviated as the economy opens up again, which should also be accompanied by a drop in inflation over the medium term. Trade relations between the US and China have come under additional strain. Further reciprocal measures restricting trade between the world's two largest economies could have extensive repercussions on global trade. In Iran, moves to reactivate the Joint Comprehensive Plan of Action, or Iran nuclear deal, concluded between Iran and the Western powers have not produced any appreciable results. The eruption of widespread protests against the Iranian government following the death of a young woman in police custody destroyed any chance of reviving the agreement and triggered a wave of condemnation from abroad. These tensions cover the latent risk of a more widespread conflict in the Middle East.

The repercussions of Brexit are still being felt in the UK. The changes at 10 Downing Street in 2022 were not conducive to the institutional stability that would have facilitated a renegotiation of the Northern Ireland Protocol with the EU. A solution to this question is seen by both sides as key to a stable relationship post-Brexit. An agreement that satisfies all parties is seen as vital to resolving the currently dormant discussions around the equivalence of financial services. Another potential sticking point for equivalence is the expected changes under the UK solvency regime, which would probably lead to a divergence (albeit a minimal one) from the EU Solvency II standard. Hannover Rück's business relations with UK cedants have not, however, been adversely affected by Brexit. Hannover Rück's branch in London has acquired the status of a third-country branch and is thus able to continue its operations.

C.6.4.2 Natural catastrophe risks and climate change

In 2022 Hannover Rück was again impacted by natural catastrophe events in various parts of the world (Europe, Australia, the US). Particularly noteworthy in the year under review were winter storm Ylenia / Zeynep in Central Europe, the heavy rain and flooding event in February and March in Australia and, most strikingly, Hurricane Ian in the US. Natural disasters should be viewed as inextricably linked to climate change. The associated impacts present a major challenge for risk management. We use both external and internal risk models to model the impacts of catastrophic

events. The monitoring of risks resulting from natural perils is rounded off with stress tests as well as scenario and sensitivity analyses.

C.6.4.3 Capital market environment

Our investments performed highly satisfactorily overall in the reporting period despite numerous geopolitical and economic challenges. Most significantly, the war in Ukraine and the Covid-19 pandemic – the effects of which are still being felt – as well as the in part associated sharp surge in inflation are currently confronting the world economy with special challenges. Our investments benefited on the whole from the fact that we had already adopted a rather prudent positioning at the turn of the previous year in view of anticipated central bank moves and inflation trends.

The general level of interest rates is an important external factor influencing the return that can be generated on our investments. The monetary policy pursued by central banks has significant implications in this regard. The meteoric rise in inflation prompted the US Federal Reserve, the ECB and many other central banks to emphatically tighten their monetary policy by hiking short-term rates and reducing or entirely stopping bond purchases. Along with inflation fears, growing levels of public debt in many countries also had an adverse effect. In our main currency areas this initially led to a very marked rise in interest rates across all maturities. Furthermore, appreciable increases in risk premiums were observed on bonds issued by developing countries and lower-quality issuers, particularly from the second quarter onwards. Both these and the interest rate levels slowed down somewhat towards year-end as anticipated. Nevertheless, the valuation reserves for our fixed-income securities consequently fell into clearly negative territory. These declines were partially offset by the large proportion that we hold in foreign currencies and the marked strengthening of some currencies – especially the US dollar – against the euro. In addition, higher interest rates have substantially positive implications for new investments and reinvesting activities.

Equity markets posted their weakest performance in recent years through to the third quarter, only recouping some of these losses in the fourth quarter. Through timely liquidation of our positions in the first six months, we were nevertheless able to generate a positive profit contribution here of EUR 94 million.

Inflation continues to be a dominant issue. Even without the war in Ukraine, catch-up effects from the pandemic would come up against tight labour markets and could, as is already evident in the US, set in motion a wage-price spiral. Higher energy costs and disrupted supply chains – especially in Europe – are further contributory factors. In the latter case, China's important – but difficult to evaluate – role against the backdrop of its Covid-19 policy also needs to be kept in mind. The topics of energy, raw materials and protectionism will also inject added tension into the future of the existing globalization trend and its trade flows. High inflation thus remains a major concern – albeit one which we are countering with income from our portfolio of inflation-linked bonds. These made a very pleasing contribution to our ordinary investment income with a positive amortisation amount of EUR 458.5 million and serve primarily to mitigate the effects of claims inflation.

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 the consideration of cash flow forecasts. We also view the need to take higher write-downs in the year under review on isolated assets not solely as evidence 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. By contributing large parts of our private equity portfolio to a joint venture with Münchener Rückversicherungs-Gesellschaft, we are able not only to further

diversify our existing portfolio but also to secure expanded market access to broader spreading of future investments.

The significance of real estate risks remains high for our company 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. The current market environment is increasingly seeing sharply higher refinancing rates and an appreciable slowdown in transaction activity, which can have knock-on effects on real estate valuations. We are keeping a close eye on this for our existing real estate portfolio, but also believe that the present correction potentially offers targeted buying opportunities.

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. Geopolitical tensions and armed conflict, as currently seen in Ukraine, pose corresponding risks to the prevailing political balance of power in Europe. Adverse impacts on financial markets are possible. Resulting increases in energy prices may push inflation even higher.

C.6.4.4 Inflation on the underwriting side

The higher rates of inflation worldwide have the potential to affect multiple factors in our business activities, including for example the insured values and their premium calculation, the loss reserves, the large loss budget, the investments (as described in the previous section) and the management expenses. We have developed measures to deal with inflation in all these respects. It should be borne in mind here that the general rise in consumer prices needs to be differentiated from the claims and cost inflation that is relevant to our company. The Hannover Rück-specific claims inflation index is a blend of different regions and currencies and dependent on the line of business. Mention should be made here of wages and salaries for liability business, construction costs for property insurance including natural perils and medical expenses for Life & Health insurance. Inflation is considered in our reserving process. Essentially, this process is based on average past inflation rates; if there are indications of a future rise in inflation we review the need to apply loadings. This is especially important in long-tail lines because multiple underwriting years can be affected at the same time. We monitor inflation drivers over the entire course of the business and reduce them by, among other things, making appropriate allowance in the premium calculation and by means of index clauses and sliding- scale commissions. We also use the inflation-linked securities referred to in the previous subsection to hedge inflation risks. Overall, the Property &Casualty reinsurance segment is affected more heavily than Life & Health reinsurance. In the course of the year we observed sharply negative runoffs of certain large losses from prior years, which we attribute partly to the rise in inflation.

C.6.4.5 Regulatory developments

The European Parliament and Council are negotiating the final legislative texts on the basis of the European Commission’s proposals for the overhaul of the Solvency II, as well as a new directive for the recovery and resolution of insurance and reinsurance undertakings. The Commission’s proposals include, among other aspects, new macro-prudential supervisory powers as well as changes to yield curves and revisions to the calculation of the risk margin. Depending on the final outcome of the ongoing legislative process, these proposals could have considerable implications

for the European (re)insurance industry. Numerous regulatory developments relating to sustainability occurred in 2022 on the international, European and national level. In the EU these are linked to the European Green Deal strategy pursued by the European Commission. The European Commission thereby renewed the high-level goals for sustainable finance, which were first set out in the Commission's 2018 action plan. Most significant for Hannover Rück are the Taxonomy Directive and the Corporate Sustainability Reporting Directive (CSRD). In the course of 2022, EIOPA carried out another internal model comparative study, in which Hannover Rück participated. Aspects such as the parameters and results of the market risk models were compared. The EIOPA studies and their findings are intended to harmonise regulatory approaches in the EU and hence refine the supervision of internal models above and beyond the existing tools. This poses, among other issues, a systemic risk that approaches specific to particular undertakings may be too heavily restricted. Digital technologies are of pivotal importance for processes in the financial services industry as a whole and especially for (re)insurers. The EU has developed the Digital Operational Resilience Act (DORA) as a new framework for ensuring the resilience of digital services in critical scenarios. Hannover Rück must adjust many internal processes in connection with the review of external IT service providers in order to implement the requirements. Growing protectionism is leading to additional restrictions on market access in many parts of the world. This trend makes it more challenging to close existing and emerging protection gaps, such as in the aftermath of catastrophic events.

C.6.4.6 Corporate taxes

The EU Member States have reached agreement in principle to implement the minimum taxation component, known as Pillar 2, of the OECD reform of international taxation on the EU level. The profits of large multinational and domestic groups or companies with a combined annual turnover of at least EUR 750 million will be taxed at a minimum rate of 15%. The global minimum tax will enter into force on 1 January 2024. Political discussions are still ongoing about a transitional period in which certain safe harbor arrangements may apply. This will have considerable implications for the reporting obligations of Hannover Rück and all other Group companies. Transposition will be governed by a German implementing act setting out the definitive legal basis for this project.

C.6.4.7 Covid-19 pandemic and biometric risks

After almost three years of operational and financial experience with the pandemic and its effects, we now have a solid basis to assess potential further developments and impacts on our company. We continue to evaluate our financial strength and profitability on a regular basis using stress tests and sensitivity analyses, and take measures as needed to reduce risks or strengthen our capital resources. This is true not only regarding of Covid-19 but also with respect to potential future pandemics. We are also monitoring the possible long-term effects of Covid-19 infections and their implications for reinsurance products. Building adequate reserves for ongoing losses from Covid-19 has been incorporated into regular processes. Contrary to the overall positive run-off in many lines of our Property & Casualty reinsurance, we incurred significant losses in the 2022 financial year from Covid-19 in Asia in the business lines accident and short-term health. In Life & Health, we continuously monitor the development of our mortality portfolio (especially in the US) as well as of our worldwide morbidity business, particularly with an eye to the impacts of the Covid-19 pandemic. It is to be anticipated that losses from the Covid-19 pandemic will continue to diminish in most markets in 2023. We are closely tracking the latest dynamic developments in China and build reserves where necessary.

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 consistent 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.

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 2022 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 subsections to the corresponding items in the Solvency II balance sheet.

in TEUR	Item	2022	2021
Assets			
Intangible assets	R0030		
Deferred tax assets	R0040	1,002,626	265,688
Pension benefit surplus	R0050		
Property, plant & equipment held for own use	R0060	83,140	73,134
Investments (other than assets held for index-linked and unit-linked contracts)	R0070	43,795,833	42,125,619
Property (other than for own use)	R0080	7,925	17,279
Holdings in related undertakings, including participations	R0090	13,165,891	12,073,723
Equities	R0100	0	175
Equities - listed	R0110		
Equities - unlisted	R0120	0	175
Bonds	R0130	27,469,101	26,813,737
Government Bonds	R0140	15,927,969	14,544,353
Corporate Bonds	R0150	10,809,648	11,524,881
Structured notes	R0160		
Collateralised securities	R0170	731,484	744,503
Collective Investments Undertakings	R0180	1,736,577	2,059,082
Derivatives	R0190	210,268	49,315
Deposits other than cash equivalents	R0200	1,206,072	1,112,307
Other investments	R0210		
Assets held for index-linked and unit-linked contracts	R0220		
Loans and mortgages	R0230	132,247	72,138
Loans on policies	R0240		
Loans and mortgages to individuals	R0250	2,087	2,619
Other loans and mortgages	R0260	130,160	69,519
Reinsurance recoverables from:	R0270	8,155,028	5,538,389
Non-life and health similar to non-life	R0280	8,380,994	6,133,089
Non-life excluding health	R0290	7,842,482	5,847,520
Health similar to non-life	R0300	538,512	285,568
Life and health similar to life, excluding health and index-linked and unit-linked	R0310	-225,967	-594,700
Health similar to life	R0320	274,478	278,300
Life excluding health and index-linked and unit-linked	R0330	-500,445	-873,000
Life index-linked and unit-linked	R0340		
Deposits to cedants	R0350	6,959,900	6,688,528
Insurance and intermediaries receivables	R0360	1,422,220	1,146,534
Reinsurance receivables	R0370	306,594	249,552
Receivables (trade, not insurance)	R0380	754,382	1,058,437
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	627,815	560,490
Any other assets, not elsewhere shown	R0420	89,567	85,206
Total assets	**R0500**	**63,329,353**	**57,863,715**

in TEUR	Item	2022	2021
Liabilities			
Technical provisions – non-life	R0510	29,766,347	26,394,517
Technical provisions – non-life (excluding health)	R0520	27,583,945	24,701,710
Technical provisions calculated as a whole	R0530		
Best Estimate	R0540	27,117,154	24,241,748
Risk margin	R0550	466,791	459,962
Technical provisions - health (similar to non-life)	R0560	2,182,402	1,692,808
Technical provisions calculated as a whole	R0570		
Best Estimate	R0580	2,119,891	1,621,924
Risk margin	R0590	62,511	70,884
Technical provisions - life (excluding index-linked and unit-linked)	R0600	4,010,181	4,970,680
Technical provisions - health (similar to life)	R0610	1,791,854	1,721,593
Technical provisions calculated as a whole	R0620		
Best Estimate	R0630	1,498,206	1,346,924
Risk margin	R0640	293,647	374,669
Technical provisions – life (excluding health and index-linked and unit-linked)	R0650	2,218,327	3,249,087
Technical provisions calculated as a whole	R0660		
Best Estimate	R0670	1,553,633	2,022,132
Risk margin	R0680	664,694	1,226,955
Technical provisions – index-linked and unit-linked	R0690	155,114	324,991
Technical provisions calculated as a whole	R0700		
Best Estimate	R0710	151,858	320,058
Risk margin	R0720	3,256	4,933
Contingent liabilities	R0740		
Provisions other than technical provisions	R0750	115,256	107,122
Pension benefit obligations	R0760	111,836	152,490
Deposits from reinsurers	R0770	5,013,023	3,647,895
Deferred tax liabilities	R0780	3,690,031	2,792,199
Derivatives	R0790	106,342	55,916
Debts owed to credit institutions	R0800		
Financial liabilities other than debts owed to credit institutions	R0810	1,093,987	1,204,405
Insurance & intermediaries payables	R0820	828,363	718,630
Reinsurance payables	R0830	163,975	157,174
Payables (trade, not insurance)	R0840	113,186	53,400
Subordinated liabilities	R0850	3,374,476	3,036,826
Subordinated liabilities not in Basic Own Funds	R0860		
Subordinated liabilities in Basic Own Funds	R0870	3,374,476	3,036,826
Any other liabilities, not elsewhere shown	R0880	301,218	141,065
Total liabilities	**R0900**	**48,843,337**	**43,757,309**
Excess of assets over liabilities	**R1000**	**14,486,016**	**14,106,406**

D.1 Assets

D.1.1 Intangible assets R0030

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Intangible assets		60,263

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 60,263. 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 2022	Solvency II 2021
Intangible assets		

In the financial year 2022 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 31.12.2022 in TEUR	Solvency II	HGB
Deferred tax assets	1,002,626	

In the Solvency II balance sheet, a deferred tax asset totalling TEUR 1,002,626 is stated as well as a deferred tax liability with the amount of TEUR 3,690,031. 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 2022	Solvency II 2021
Deferred tax assets	1,002,626	265,688

The increase in deferred tax claims amounting to TEUR 736,938 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 31.12.2022 in TEUR	Solvency II	HGB
Property, plant & equipment held for own use	83,140	46,319

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 considered as identical with the valuation used in HGB annual accounts totalling TEUR 21,614. 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 36,821 is attributable to the valuation of shares in the business facilities located in Hannover.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Property, plant & equipment held for own use	83,140	73,134

The increase compared to the previous year is mainly due to changes in the proportion of use in the buildings held and used jointly with E+S Rück at the Hannover location.

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

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Property (other than for own use)	7,925	4,301

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 3,624 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 2022	Solvency II 2021
Property (other than for own use)	7,925	17,279

The decrease compared to the previous year is mainly due to changes in the proportion of use in the buildings held and used jointly with E+S Rück at the Hannover location.

D.1.5 Participations and related undertakings R0090

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Holdings in related undertakings, including participations	13,165,891	9,925,270

Participations are stated at market values under Solvency II. There are no stock market prices available for the valuation of affiliated companies of Hannover Rück. The market values of affiliated companies or participating interests are determined on the basis of Solvency 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 3,240,621 is predominantly attributable to participations held by the Hannover Re Group in domestic and foreign reinsurers.

In the financial year 2022 shares in four private equity firms were transferred into a joint venture with Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft. The shares in the joint venture as well as the remaining shares in the private equity firms mentioned before are recognised in this balance sheet item as per year-end.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Holdings in related undertakings, including participations	13,165,891	12,073,723

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 31.12.2022 in TEUR	Solvency II	HGB
Equities	0	0

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. Currently, no listed equities are held in the portfolio.

Unlisted equities are valued on the basis of the Capitalised earnings method, the discounted cash flow method and multiples-based approaches. The difference between Solvency II and HGB is based on differences in classification.

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

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Equities	0	175

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 31.12.2022 in TEUR	Solvency II	HGB
Government Bonds	15,927,969	16,534,462

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 98% of the portfolio items reported here, 1% are valued using the cash value method and for 1%, 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 -606,493.

In essence, approximately TEUR -696,492 are attributable to hidden burdens arising from the different valuations and TEUR 90,029 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 2022	Solvency II 2021
Government Bonds	15,927,969	14,544,353

The increase in portfolio size compared to the previous year is predominantly attributable to the absolute increase from operating cash flow and currency effects, especially from the US dollar.

D.1.7.2 Corporate Bonds R0150

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Corporate Bonds	10,809,648	12,095,230

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 91% of the portfolio items reported here, 6% are valued using the cash value method and 3% are valued using book values.

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 -1,285,582.

In essence, approximately TEUR -1,404,160 are attributable to hidden burdens arising from the different valuations and TEUR 118,578 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.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Corporate Bonds	10,809,648	11,524,881

The decrease in portfolio size compared to the previous year is predominantly attributable to the general increase in interest rates and risk premiums. The operating cash flow and exchange rate effects, especially from the US Dollar, had a counteracting effect.

D.1.7.3 Collateralised securities R0170

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Collateralised securities	731,484	794,375

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 CLO’s 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 CLO’s assumptions are made regarding the speed of repayment and recovery rates.

84% 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”). Publicly available prices are available for the remaining 16%.

The difference between the Solvency II value of these investments and their value stated within the annual accounts pursuant to the HGB totals TEUR -62,891.

Here, approximately TEUR -70,230 are attributable to hidden burdens arising from the different valuation bases and TEUR 7,339 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 2022	Solvency II 2021
Collateralised securities	731,484	744,503

The decrease in portfolio size compared to the previous year is predominantly attributable to the overall increase in interest rates and risk premiums. The operating cash flow and exchange rate effects, especially from the US Dollar, had a counteracting effect.

D.1.8 Collective Investments Undertakings R0180

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Collective Investments Undertakings	1,736,577	1,754,283

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 84% of the positions covered here, 16% are valued using the present value method.

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 -17,706 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 -17,706. This exclusively concerns hidden burdens.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Collective Investments Undertakings	1,736,577	2,059,082

The decrease in the portfolio compared to the previous year is mainly due to market value declines and the liquidation of our portfolio of exchange-listed equity funds. These were partially offset by positive currency effects and new investments and reinvestments from operating cash flow.

D.1.9 Derivatives R0190

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Derivatives	210,268	

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 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 203,376 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”.

In order to hedge the risk of share price changes in connection with the stock appreciation rights granted under the share award plan, Hannover Rück has taken out hedges in the form of so-called equity swaps. The hedge is effected at the level of tranches and on a rolling basis with a maturity of three to four months until the share awards are paid out after five years.

According to Solvency II equity swaps are marked-to-market. At date of balance, the fair value was TEUR 6,892 and is recognized on the asset side of the balance sheet. Pursuant to § 254 of the Commercial Code (HGB), the underlying and the hedge were combined in a single valuation unit.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Derivatives	210,268	49,315

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 31.12.2022 in TEUR	Solvency II	HGB
Deposits other than cash equivalents	1,206,072	1,143,912

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 62,160.

The difference is attributable to two effects: on the one hand to different valuations in the amount of TEUR 2,235 and on the other hand to the different methods of stating accrued interest to an amount of TEUR 59,925. 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 2022	Solvency II 2021
Deposits other than cash equivalents	1,206,072	1,112,307

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 31.12.2022 in TEUR	Solvency II	HGB
Other investments		287,674

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 287,674 comprises accrued interest and rental payments. These are listed in the Solvency II balance sheet in the respective investment item, therefore no value is listed under other investments.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
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 R0230

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Loans and mortgages	132,247	137,624

Loans and mortgages are stated at fair values under Solvency II. In addition to collateralised financial assets, this balance sheet item also includes non-collateralised financial assets.

Under German Commercial Code (HGB) the valuation of fixed assets considers the diluted lowest value principle.

Loans are stated at their book value or are recognised using a theoretical calculation. The present value method is applied in the absence of any particular structural characteristics. For structured loans, valuation is based on the interest rate model, cf. also “D.4 Alternative methods for valuation”.

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

The difference between the valuation in the Solvency II balance sheet and in the HGB annual accounts totalling TEUR 5,377 is attributable to the different valuation principles.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Loans and mortgages	132,247	72,138

The underlying assumptions of loans and mortgages did not change in the financial year 2022.

D.1.13 Reinsurance recoverables R0270

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Property & Casualty reinsurance	8,380,994	10,696,566
Life & Health reinsurance	-225,967	723,889
Total	**8,155,028**	**11,420,455**

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 2022	Solvency II 2021
Property & Casualty reinsurance	8,380,994	6,133,089
Life & Health reinsurance	-225,967	-594,700
Total	**8,155,028**	**5,538,389**

For Property & Casualty reinsurance, the development of reinsurance recoverables under Solvency II follows corresponding IFRS 4 movements.

For Life & Health reinsurance, the changes in the amount of reinsurance recoverables are mainly due to economic variances as well as assumption changes of morbidity and termination rates for critical illness and disability business, respectively.

D.1.14 Deposits to cedants R0350

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Deposits to cedants	6,959,900	9,629,070

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 4 / US GAAP), the gross presentation is pursued. For business with very limited risk transfer, Hannover Rück follows the IFRS 4 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 2022	Solvency II 2021
Deposits to cedants	6,959,900	6,688,528

Changes in comparison to the previous reporting period in the amount of deposits to cedants are mainly due to market value adjustments.

D.1.15 Insurance and intermediaries receivables R0360

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Insurance and intermediaries receivables	1,422,220	5,647,610

Solvency II 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 -3,918,796. 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 2022	Solvency II 2021
Insurance and intermediaries receivables	1,422,220	1,146,534

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 31.12.2022 in TEUR	Solvency II	HGB
Reinsurance receivables	306,594	

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 2022	Solvency II 2021
Reinsurance receivables	306,594	249,552

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 31.12.2022 in TEUR	Solvency II	HGB
Receivables (trade, not insurance)	754,382	805,618

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 2022	Solvency II 2021
Receivables (trade, not insurance)	754,382	1,058,437

The reduction in the reporting year is mainly caused by a reduction of dividend receivables of TEUR 102,568 as well as by a reduction of tax and other receivables.

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 31.12.2022 in TEUR	Solvency II	HGB
Cash and cash equivalents	627,815	627,815

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 2022	Solvency II 2021
Cash and cash equivalents	627,815	560,490

Cash and cash equivalents increased by TEUR 67,325 during the reporting period.

D.1.19 Any other assets, not elsewhere shown R0420

Differences in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Any other assets, not elsewhere shown	89,567	117,610

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

- Pension insurance 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 pension insurance 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 pension insurance claims stemming from pension obligations.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Any other assets, not elsewhere shown	89,567	85,206

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.

Hannover Rück applies the static volatility adjustment according to Article 77d of the Directive 2009/138/EC. This is intended to mitigate the effect of temporary value fluctuations due to credit spread movements on the bond market. In order to capture this effect adequately for the calculation of the required capital Hannover Rück uses the dynamic volatility in its internal model. 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	33,931,642	435,769
Basic own funds	17,136,910	-332,327
Eligible own funds to meet Solvency Capital Requirement	17,136,910	-332,327
Solvency Capital Requirement	6,699,618	299,212
Eligible own funds to meet Minimum Capital Requirement	14,812,099	-305,398
Minimum Capital Requirement	3,014,828	134,646

Transitionals are currently not applied at Hannover Rück. 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 deduction 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 ongoing 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 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).

Balances of accounts payables and receivables not due 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

After almost three years of operational and financial experience with the pandemic and its effects, we now have a solid basis to assess potential further developments and impacts on our company.

We continue to evaluate our financial strength and profitability on a regular basis using stress tests and sensitivity analyses, and take measures as needed to reduce risks or strengthen our capital resources. This is true not only regarding of Covid-19 but also with respect to potential future pandemics. We are also monitoring the possible long-term effects of Covid-19 infections and their implications for reinsurance products. Building adequate reserves for ongoing losses from Covid-19 has been incorporated into regular processes.

Contrary to the overall positive run-off in many lines of our Property & Casualty reinsurance, we incurred significant losses in the 2022 financial year from Covid-19 in Asia in the business lines accident and short-term health.

In Life & Health, we continuously monitor the development of our mortality portfolio (especially in the United States) as well as of our worldwide morbidity business, particularly with an eye to the impacts of the Covid-19 pandemic. It is to be anticipated that losses from the Covid-19 pandemic will continue to diminish in most markets in 2023. We are closely tracking the latest dynamic developments in China and build reserves where necessary.

Inflation

The higher rates of inflation worldwide have the potential to affect multiple factors in our business activities, including for example the insured values and their premium calculation, the loss reserves, the large loss budget, the investments (as described in the previous section) and the management expenses. We have developed measures to deal with inflation in all these respects. It should be borne in mind here that the general rise in consumer prices needs to be differentiated from the claims and cost inflation that is relevant to our company. The Hannover Rück-specific claims inflation index is a blend of different regions and currencies and dependent on the line of business. Mention should be made here of wages and salaries for liability business, construction costs for

property insurance including natural perils and medical expenses for Life & Health insurance. Inflation is considered in our reserving process. Essentially, this process is based on average past inflation rates; if there are indications of a future rise in inflation we review the need to apply loadings. This is especially important in long-tail lines because multiple underwriting years can be affected at the same time. We monitor inflation drivers over the entire course of the business and reduce them by, among other things, making appropriate allowance in the premium calculation and by means of index clauses and sliding-scale commissions.

We also use the inflation-linked securities referred to in the previous subsection to hedge inflation risks. Overall, the Property & Casualty reinsurance segment is affected more heavily than Life & Health reinsurance.

In the course of the year, we observed sharply negative runoffs of certain large losses from prior years, which we attribute partly to the rise in inflation.

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	3,781,652	59,641	3,841,293	6,686,938	-2,845,645
Workers' compensation insurance	130,881	949	131,830	383,882	-252,052
Income protection insurance	700,530	9,244	709,774	1,217,286	-507,512
Fire and other damage to property insurance	6,318,778	83,440	6,402,218	10,715,329	-4,313,111
Motor vehicle liability insurance	1,539,175	16,857	1,556,031	3,411,769	-1,855,738
Credit and suretyship insurance	1,382,029	22,895	1,404,924	2,478,521	-1,073,597
Marine, aviation, transport	1,047,403	11,009	1,058,411	1,883,899	-825,488
Other motor insurance	1,413,274	13,560	1,426,834	2,188,733	-761,899
Other insurance	546,018	6,806	552,824	859,550	-306,726
Non-proportional health reinsurance	1,043,045	51,100	1,094,145	1,991,607	-897,462
Non-proportional property reinsurance	4,136,197	52,544	4,188,741	6,995,063	-2,806,321
Non-proportional marine, aviation and transport	771,047	14,877	785,925	1,134,363	-348,438
Non-proportional casualty reinsurance	6,427,014	186,381	6,613,395	9,645,793	-3,032,398
Total Non-Life Obligation	**29,237,045**	**529,302**	**29,766,347**	**49,592,732**	**-19,826,385**

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. First, average inflation rates of the past are taken into account. With the help of scenario-based analyses for expected future inflation rates, the necessity of surcharges is examined.

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.

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 2022.

Major revaluation effects
in TEUR

Description	2022
Technical provisions property and casualty reinsurance net under HGB	**38,896,166**
Proportion of business that is ceded to reinsurer under HGB	10,696,566
Equalisation reserve	-4,865,347
Discounting of cash flows	-5,740,304
Risk margin	529,302
Other revaluation effects	-5,768,914
Total revaluation effect from HGB to Solvency II	**-5,148,697**
Netting of accounts payables and receivables	-3,981,122
Technical provisions property and casualty reinsurance under Solvency II	**29,766,347**

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 built 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 realisation 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	2022	2021
BEL gross	29,237,045	25,863,672
BEL net	20,856,050	19,730,583
RM	529,302	530,845

The BEL increases due to increased business volumes as well due to provisions for large losses.

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 and 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 companies comprise the Life & Health business for Hannover Rück:

- Hannover Rück: business written in Hannover Rück and by branches of Hannover Rück
- Hannover Life Reassurance Company of America (Bermuda) Ltd., Hamilton *
- Hannover Life Reassurance Company of America, Orlando
- Hannover Life Re of Australasia Ltd, Sydney
- Hannover Re South Africa Ltd, Johannesburg
- Hannover Re (Ireland) Designated Activity Company, Dublin.

* This covers a stop loss treaty (for US mortality business) provided to the Hannover Life Reassurance Company of America (Bermuda) Ltd. as well as parental guarantees for certain underlying transactions.

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	1,705,491	667,950	2,373,442	9,632,319	-7,258,877
Health	1,498,206	293,647	1,791,854	633,506	1,158,348
Total	**3,203,698**	**961,598**	**4,165,295**	**10,265,825**	**-6,100,529**

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. Thereby the reporting currency of the respective branch is applied.

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

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 and for the UK market a provision for the impact of delays in the diagnosis of Critical Illness claims due to Covid-19.

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.

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 trends 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.

Future Management Actions (FMA) are reflected for certain American, Australian and Asian business. Except for some Asian and some US business, the management actions have generally no impact on the Best Estimate Projections, but only on the scenarios used for the internal model. Therefore, they affect the SCR and the risk margin. For Asian business, FMA is only considered in the BEL. T.

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.

For the Critical Illness business of the Shanghai Branch, there were adjustments to the mortality and morbidity assumptions, which in total had an increasing effect on the BEL. There was also an increase in BEL due to adjustments to the expense assumptions for longevity business of the UK Branch as well as adjustments to the termination rates for disability business of the Australian

subsidiary. For the Hong Kong Branch, adjustments to mortality and lapse assumptions for selected treaties resulted in a decrease in BEL.

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 -225,967), 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 723,889. Certain revaluation steps between HGB and Solvency II are provided in Section D.2.2.4.

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 a material driver of uncertainty in the modelling of business. Relevant morbidity risks are stemming from potential changes of incidence rates for Chinese critical illness business as well as from Australian and Taiwanese disability business and UK critical illness 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 valuation of this business reflects the expected cash flows from inforce management activity, most notably rate increases pursuant to our contractual rights. As part of our inforce management measures we had initiated rate adjustments for the portfolio concerned in 2018. For the majority of the underlying business, these rate adjustments have been successfully implemented or the cedant has recaptured the business. We are currently engaged in arbitration procedures with a small number of individual cedants in respect of the implemented rate increases. Rate increases for

further selected treaties were initiated in the course of 2021. Here, too, we anticipate that arbitration proceedings may ensue in individual cases. Based on the information currently available to us, we take a favourable view of our legal position for the remaining proceedings.

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 the possibility 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. Experience continues to be monitored on an ongoing basis.

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	2022
(1)	**Technical HGB liability net of reinsurance**	**9,541,936**
(2)	Risk Margin	961,598
(3)	Deposit cash flows for very risk remote transactions are included in TP under Solvency II	-2,365,306
(4)	Further differences in methods / assumptions	-3,733,223
(5)	Netting of accounts payables and receivables	-13,742
(6)=(1)+...+(5)	**Solvency II TP net of reinsurance**	**4,391,262**

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 is 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 Provisions other than technical provisions R0750

Difference in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Provisions other than technical provisions	115,256	284,236

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 calculated according to the necessary settlement value based on sound judgement.

The difference of TEUR 168,980 between the amount in the Solvency II balance sheet and in the annual accounts pursuant to commercial law is caused by different valuation approaches and a different definition of this position respectively.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Provisions other than technical provisions	115,256	107,122

In comparison to the previous year, the underlying assumptions for this position did not change.

D.3.2 Pension benefit obligations R0760

Difference in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Pension benefit obligations	111,836	115,426

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 in the Solvency II balance sheet and in the annual accounts according to commercial law totalling TEUR 3,590 is particularly attributable to the different interest rates applied for discounting.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Pension benefit obligations	111,836	152,490

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

D.3.3 Deposits from reinsurers R0770

Difference in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Deposits from reinsurers	5,013,023	5,111,583

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 2022	Solvency II 2021
Deposits from reinsurers	5,013,023	3,647,895

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

D.3.4 Deferred tax liabilities R0780

Difference in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Deferred tax liabilities	3,690,031	

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 1,002,626 is stated as well as a deferred tax liability to the amount of TEUR 3,690,031. This subsequently leads to an excess of tax liability over tax assets, that is calculated 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, if 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 if these differences will invert in future (temporary differences). Temporary differences basically result from valuation differences between the tax balance sheet, created in line with national standards, and the IFRS balance sheet as well as from consolidation procedures. Deferred taxes are not calculated on permanent differences.

Deferred tax assets are also calculated based on tax loss carry forwards and tax credits. Adjustments are made as soon as the realisation of the deferred tax assets appears no longer probable in future (refer to chapter E.1.2.5 for more details on the impairment test). Deferred taxes are valued using the ratified rates of tax in the respective country, which apply or have been decreed as at the reporting due date.

The second step consists of the calculation of deferred taxes based on the valuation differences between the Solvency II balance sheet and the IFRS balance sheet. The granularity of this calculation is in line with the granularity of the calculation of deferred tax under IFRS. Reclassifications are considered (e.g. referring to payables/receivables and intragroup loans) to reflect specific requirement under Solvency II. The calculation of the deferred tax asset and liability is carried out on the level of individual balance sheet items. According to Guideline 9 of the EIOPA guidelines, no discounting applies in the valuation of deferred taxes in the Solvency II balance sheet.

As result of these two steps the deferred taxes based on the valuation differences between the tax balance sheet and the Solvency II balance sheet are calculated.

With existing differences between the commercial and tax valuation for assets, liabilities and deferred / prepaid items, which are expected 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 2022	Solvency II 2021
Deferred tax liabilities	3,690,031	2,792,199

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.3.5 Derivatives R0790

Difference in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Derivatives	106,342	

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 assets stand vis-à-vis derivative liabilities 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 106,342 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 comparison to the previous year, the assumptions regarding the calculation of this balance sheet item did not change.

in TEUR	Solvency II 2022	Solvency II 2021
Derivatives	106,342	55,916

D.3.6 Financial liabilities other than debts owed to credit institutions R0810

Difference in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Financial liabilities other than debts owed to credit institutions	1,093,987	1,147,008

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 -53,021. This difference is mainly caused by valuation differences of a senior bond issued in the financial year 2018. Additionally, there are 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 German commercial law.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Financial liabilities other than debts owed to credit institutions	1,093,987	1,204,405

The decrease in the value in the year under review results predominantly from a decrease in loans with Group companies and a lower market value of the senior bond.

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

D.3.7 Insurance & intermediaries payable R0820

Difference in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Insurance & intermediaries payables	828,363	

Solvency II 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 2022	Solvency II 2021
Insurance & intermediaries payables	828,363	718,630

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

D.3.8 Reinsurance payables R0830

Difference in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Reinsurance payables	163,975	2,252,902

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 -1,260,564.

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 2022	Solvency II 2021
Reinsurance payables	163,975	157,174

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.3.9 Payables (trade, not insurance) R0840

Difference in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Payables (trade, not insurance)	113,186	111,192

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 1,995 between the items in the solvency statement and the financial statements prepared in accordance with the HGB results from reclassifications.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Payables (trade, not insurance)	113,186	53,400

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

The increase in the year under review is mainly based on an increase in tax liabilities.

D.3.10 Subordinated liabilities R0850

Difference in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Subordinated liabilities	3,374,476	3,750,000

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 is 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 liabilities”.

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 -375,524.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Subordinated liabilities	3,374,476	3,036,826

In the reporting period, Hannover Rück issued a subordinated bond of the amount of TEUR 750,000. The difference compared to the previous year is based on maturity difference and the resulting present values at the reporting date. General rise of interest rate also led to a significant change in the portfolio value.

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

D.3.11 Any other liabilities, not elsewhere shown R0880

Difference in valuation

Values as of 31.12.2022 in TEUR	Solvency II	HGB
Any other liabilities, not elsewhere shown	301,218	289,721

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 11,498 is the result of reclassifications.

Comparison to prior year

in TEUR	Solvency II 2022	Solvency II 2021
Any other liabilities, not elsewhere shown	301,218	141,065

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

In the financial year 2022 the development of this balance sheet item is based on the recognition of liabilities from securities lending.

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
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
Zero Coupon Inflation Swaps	Interest rate curve, inflation curve, seasonality	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 (LoC), which have been issued by various banks. The overall volume amounts to TEUR 1,628,775. 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 5,275,072. 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 2,333,500. 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 150,000 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 62,500.

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 204,700 for special investments and shares in affiliate companies. Furthermore, there is a long-term compensation obligation of TEUR 7,500 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 Delegated 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 2022.

Structure of basic own funds

in TEUR	2022	2021
Tier 1 unrestricted	13,723,099	13,348,564
Ordinary share capital	120,597	120,597
Share premium account	880,608	880,608
Reconciliation reserve	12,721,894	12,347,359
Tier 1 restricted	486,034	533,225
Subordinated own funds	486,034	533,225
Tier 2	2,888,442	2,503,601
Subordinated own funds	2,888,442	2,503,601
Tier 3	39,335	64,408
An amount equal to the value of net deferred tax assets	39,335	64,408
Total	**17,136,910**	**16,449,798**

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 results from an increase of the excess of assets over liabilities, the issuance of a new subordinated bond and a change for the deferred taxes. Valuation changes in subordinated capital in the reporting year played a minor role.

The increase of the excess of assets over liabilities compared to reporting year 2020 also increases the reconciliation reserve. A higher dividend payout compared to previous reporting period reduces the overall effect.

Available and eligible own funds

in TEUR	2022	2021
Total available own funds	17,136,910	16,449,798
Total eligible own funds to meet SCR	17,136,910	16,449,798
Total eligible own funds to meet MCR	14,812,099	14,478,853

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	2022	2021
Shareholders' capital (HGB)	6,697,716	5,889,716
Dividend	-723,583	-693,434
Differences in values and valuations Solvency II to HGB:	13,850,181	13,780,027
Equalisation reserve	4,865,347	4,317,044
Deferred acquisition costs and other intangible assets	-60,263	-61,356
Land, buildings and equipment	40,445	35,694
Shares / investments in affiliates and participations	3,240,621	3,862,093
Fixed-interest securities and other investments	-1,993,295	1,283,537
Assets and liabilities from reinsurance business	7,730,847	4,431,223
Miscellaneous non-technical assets and liabilities	26,478	-88,209
Deferred taxes on tax differences between Solvency II and HGB	-2,687,405	-2,526,511
Available own funds (Solvency II)	**17,136,910**	**16,449,798**

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 12,721,894. The reconciliation increased by TEUR 374,535 during the reporting period.

The reconciliation reserve represents reserves (in particular retained earnings) less value adjustments; 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 holds five 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	2022	2021
Subordinated debt	2,874,166	2,501,436
Subordinated loans	500,310	535,390
Total	**3,374,476**	**3,036,826**

In the reporting period, a new subordinated bond was issued. The issue took place on 14 November 2022. The nominal value is TEUR 750,000 and the bond is classified as tier 2.

In addition, further subordinated liabilities with equity character exist as of the reporting date:

On 22 March 2021 raised a subordinated bond with a nominal value of TEUR 750,000 from capital markets. The bond issued is classified as tier 2.

On 8 July 2020 raised a subordinated bond with a nominal value of TEUR 500,000 from capital markets. The bond issued is classified as tier 2.

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. Deferred tax assets and deferred tax liabilities are offset if they relate to the same type of tax levied by the same taxation authority (identical tax creditor) and there is a legally enforceable right to offset current tax assets against current tax liabilities. The netting is carried out at the level of individual taxable entities. Net deferred tax assets arise if the deferred tax assets exceed the deferred tax liabilities for each taxable entity.

The recoverability of deferred taxes in the Solvency II balance sheet is assessed at each balance sheet date in a multi-step process. In the first step, deferred tax liabilities reported in the Solvency II balance sheet are used as part of the recognition test for deferred tax assets. Any timing restrictions and the above-mentioned limits on offsetting are taken into account. In the second step, deferred tax assets can only be recognized over and above if it can be demonstrated that sufficient future taxable profit will be available.

To the extent that it is not probable that future taxable profit will be available, corresponding valuation allowances are created.

As at the balance sheet date, the accumulated net deferred tax assets amount to TEUR 39,335.

Recognition of net deferred tax assets as basic own funds items is possible as far as the taxable entity can achieve a full offset against taxes payable in the future. The offset can be achieved by conversion into current tax assets or liabilities. Alternatively, offsetting can be achieved through realization as part of the tax assessment.

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

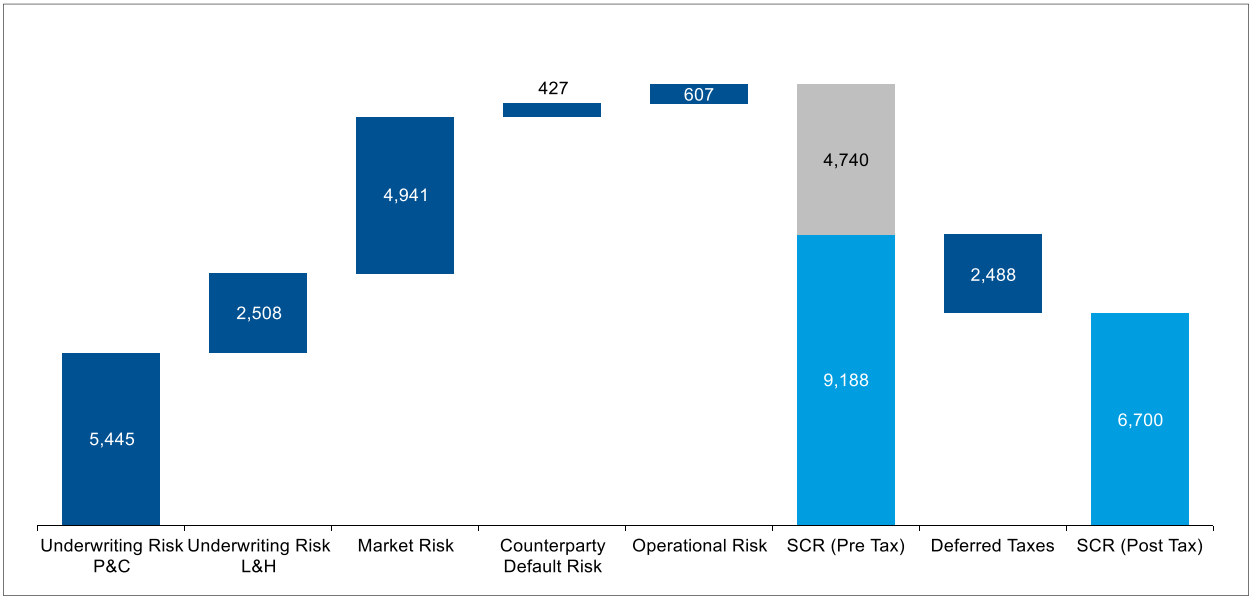
E.2.1 Solvency Capital Requirement per Risk Category

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	2022	2021
Underwriting risk - Property & Casualty	5,445,473	5,251,239
Underwriting risk - Life & Health	2,507,694	3,324,426
Market risk	4,940,625	4,612,492
Counterparty default risk	426,917	462,029
Operational risk	607,039	610,163
Diversification	**-4,739,894**	**-5,121,055**
Total risk (pre-tax)	**9,187,854**	**9,139,293**
Deferred tax	2,488,237	2,505,256
Total risk (post-tax)	**6,699,618**	**6,634,037**

The required capital has been calculated based on the approved internal model. Hannover Rück applies the static volatility adjustment according to §82 of the Insurance Supervision Law VAG. This is intended to mitigate the effect of temporary value fluctuations due to credit spread movements on the bond market. In order to capture this effect adequately for the calculation of the required capital Hannover Rück uses the dynamic volatility in its internal model.

The model is subject to strict internal quality checks and extensive validation. The adequacy of the tax module of the internal model is currently under review. The expected impact on the solvency

capital requirement is small. 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 at the confidence level of 99.5% slightly 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 in Property & Casualty reinsurance and in market risks. The weaker euro against the US dollar also contributed to this increase. On the other hand, the significantly higher interest rate level results in an appreciable decrease in SCR.

Underwriting risks in Property & Casualty reinsurance increased primarily as a consequence of higher premium and reserve volumes. The enlarged volumes are driven by the business growth, the large loss expenditure and associated higher reserves as well as the stronger US dollar.

The strong increase in interest rates leads to a decrease in underwriting risks in Life & Health reinsurance. This particularly affects longevity risk, but also applies to the mortality and morbidity risk.

The increase in the market risk reflects first and foremost the larger volume due to new investments and higher market values in the areas of private equity and real estate. Wider spreads and increased volumes of fixed-income securities are further factors here.

A smaller volume of receivables due from retrocessionaires was the main driver for the decrease in counterparty default risks.

The changes in operational risk can be attributed to updated expert assessments regarding the impact of individual scenarios.

The decrease in the diversification effect is a result of changes in the composition of the underwriting and market risks. The loss-absorbing effect of taxes remained relatively stable.

For the calculation of the loss-absorbing capacity of deferred taxes, the build-up of deferred tax assets is restricted by the amount of initial net deferred tax liabilities as well as future tax liabilities stemming from future profits. The net deferred tax liabilities basically stem from temporary valuation differences compared to the tax 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	2022	2021
Eligible own funds	17,136,910	16,449,798
SCR	6,699,618	6,634,037
Ratio of eligible own funds to SCR	**256%**	**248%**

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	2022	2021
Eligible own funds	14,812,099	14,478,853
MCR	3,014,828	2,985,317
Ratio of eligible own funds to MCR	**491%**	**485%**

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 internal model used

E.4.1 The internal model

Hannover Rück 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 that is reflecting the changes in economic value over a period of one year.

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's internal capital model is a key component of the risk management system. It serves to analyse its overall risk position, to quantify risks and to determine the economic capital required to assume those risks.

The results of Hannover Rück's internal model provide support to senior management in their decision-making. 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 & Health as well as Property & Casualty), 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 & Health, underwriting risk Property & Casualty, 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 Rück 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 – in particular for the underwriting risk. Generally speaking, company data relating to insurance performance within Property & Casualty 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 & 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 Property & Casualty 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. 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 Rück'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 frequent losses.

AF: Actuarial function

BaFin: Bundesanstalt für Finanzdienstleistungsaufsicht, Federal Financial Supervisory Authority

BEL: Best Estimate Liability

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

IBNR: Incurred But Not Reported

ICS: Internal Control System

IFRS: International Financial Reporting Standards

L&H: Life & Health

MCR: Minimum Capital Requirement

NGO: Non-Governmental Organisation

ORSA: Own Risk and Solvency Assessment

P&C: Property & 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 (Versicherungsaufsichtsgesetz), 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**	1,002,626
Pension benefit surplus	**R0050**	
Property, plant & equipment held for own use	**R0060**	83,140
Investments (other than assets held for index-linked and unit-linked contracts)	**R0070**	43,795,833
Property (other than for own use)	**R0080**	7,925
Holdings in related undertakings, including participations	**R0090**	13,165,891
Equities	**R0100**	0
Equities - listed	**R0110**	
Equities - unlisted	**R0120**	0
Bonds	**R0130**	27,469,101
Government Bonds	**R0140**	15,927,969
Corporate Bonds	**R0150**	10,809,648
Structured notes	**R0160**	
Collateralised securities	**R0170**	731,484
Collective Investments Undertakings	**R0180**	1,736,577
Derivatives	**R0190**	210,268
Deposits other than cash equivalents	**R0200**	1,206,072
Other investments	**R0210**	
Assets held for index-linked and unit-linked contracts	**R0220**	
Loans and mortgages	**R0230**	132,247
Loans on policies	**R0240**	
Loans and mortgages to individuals	**R0250**	2,087
Other loans and mortgages	**R0260**	130,160
Reinsurance recoverables from:	**R0270**	8,155,028
Non-life and health similar to non-life	**R0280**	8,380,994
Non-life excluding health	**R0290**	7,842,482
Health similar to non-life	**R0300**	538,512
Life and health similar to life, excluding health and index-linked and unit-linked	**R0310**	-225,967
Health similar to life	**R0320**	274,478
Life excluding health and index-linked and unit-linked	**R0330**	-500,445
Life index-linked and unit-linked	**R0340**	
Deposits to cedants	**R0350**	6,959,900
Insurance and intermediaries receivables	**R0360**	1,422,220
Reinsurance receivables	**R0370**	306,594
Receivables (trade, not insurance)	**R0380**	754,382
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**	627,815
Any other assets, not elsewhere shown	**R0420**	89,567
Total assets	**R0500**	**63,329,353**

S.02.01.02: Balance sheet, page 2		Solvency II
Liabilities		**C0010**
Technical provisions – non-life	**R0510**	29,766,347
Technical provisions – non-life (excluding health)	**R0520**	27,583,945
Technical provisions calculated as a whole	**R0530**	
Best Estimate	**R0540**	27,117,154
Risk margin	**R0550**	466,791
Technical provisions - health (similar to non-life)	**R0560**	2,182,402
Technical provisions calculated as a whole	**R0570**	
Best Estimate	**R0580**	2,119,891
Risk margin	**R0590**	62,511
Technical provisions - life (excluding index-linked and unit-linked)	**R0600**	4,010,181
Technical provisions - health (similar to life)	**R0610**	1,791,854
Technical provisions calculated as a whole	**R0620**	
Best Estimate	**R0630**	1,498,206
Risk margin	**R0640**	293,647
Technical provisions – life (excluding health and index-linked and unit-linked)	**R0650**	2,218,327
Technical provisions calculated as a whole	**R0660**	
Best Estimate	**R0670**	1,553,633
Risk margin	**R0680**	664,694
Technical provisions – index-linked and unit-linked	**R0690**	155,114
Technical provisions calculated as a whole	**R0700**	
Best Estimate	**R0710**	151,858
Risk margin	**R0720**	3,256
Contingent liabilities	**R0740**	
Provisions other than technical provisions	**R0750**	115,256
Pension benefit obligations	**R0760**	111,836
Deposits from reinsurers	**R0770**	5,013,023
Deferred tax liabilities	**R0780**	3,690,031
Derivatives	**R0790**	106,342
Debts owed to credit institutions	**R0800**	
Financial liabilities other than debts owed to credit institutions	**R0810**	1,093,987
Insurance & intermediaries payables	**R0820**	828,363
Reinsurance payables	**R0830**	163,975
Payables (trade, not insurance)	**R0840**	113,186
Subordinated liabilities	**R0850**	3,374,476
Subordinated liabilities not in Basic Own Funds	**R0860**	
Subordinated liabilities in Basic Own Funds	**R0870**	3,374,476
Any other liabilities, not elsewhere shown	**R0880**	301,218
Total liabilities	**R0900**	**48,843,337**
Excess of assets over liabilities	**R1000**	**14,486,016**

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' compen-sation 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	152,542	614,639	73,324	1,512,882	1,917,414	646,995	6,838,383	2,157,684	1,043,682
Gross - Non-proportional reinsurance accepted	R0130									
Reinsurers' share	R0140	55,095	216,514	76,303	620,710	1,182,337	283,389	3,796,345	690,765	710,710
Net	R0200	97,447	398,125	-2,978	892,171	735,077	363,606	3,042,039	1,466,919	332,972
Premiums earned										
Gross - Direct Business	R0210									
Gross - Proportional reinsurance accepted	R0220	151,851	544,289	79,251	1,549,152	1,908,521	673,156	6,594,295	2,111,196	1,000,585
Gross - Non-proportional reinsurance accepted	R0230									
Reinsurers' share	R0240	51,288	179,284	77,818	627,623	1,146,605	287,701	3,671,930	649,266	681,434
Net	R0300	100,563	365,005	1,432	921,530	761,916	385,455	2,922,365	1,461,930	319,151
Claims incurred										
Gross - Direct Business	R0310									
Gross - Proportional reinsurance accepted	R0320	517,902	933,895	58,899	1,252,250	1,328,485	597,451	4,882,203	1,428,608	641,163
Gross - Non-proportional reinsurance accepted	R0330									
Reinsurers' share	R0340	257,704	414,618	60,345	469,005	826,071	168,603	3,000,586	412,720	247,281
Net	R0400	260,198	519,277	-1,446	783,245	502,414	428,848	1,881,617	1,015,888	393,882

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' compen-sation 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		-81				7	-35	-15	
Gross - Non-proportional reinsurance accepted	R0430									
Reinsurers' share	R0440						1	-5	-2	
Net	R0500		-81				6	-30	-13	
Expenses incurred	R0550	73,926	124,895	5,695	223,762	263,971	133,237	1,122,502	475,760	48,615
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	Miscella-neous 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	47,499	27,898	204,558					15,237,500
Gross - Non-proportional reinsurance accepted	R0130				221,006	1,721,430	325,083	3,507,930	5,775,450
Reinsurers' share	R0140	7,027	3,610	37,458	5,256	10,236	36,670	267,044	7,999,468
Net	R0200	40,472	24,288	167,100	215,750	1,711,194	288,413	3,240,887	13,013,481
Premiums earned									
Gross - Direct Business	R0210								
Gross - Proportional reinsurance accepted	R0220	44,089	17,523	205,823					14,879,732
Gross - Non-proportional reinsurance accepted	R0230				220,370	1,703,005	328,244	3,474,606	5,726,226
Reinsurers' share	R0240	6,583	2,247	36,586	5,256	10,090	36,680	260,668	7,731,059
Net	R0300	37,506	15,277	169,237	215,115	1,692,915	291,564	3,213,939	12,874,900

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	Miscella-neous 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	31,948	4,197	115,397					11,792,397
Gross - Non-proportional reinsurance accepted	R0330				183,858	1,102,610	-87,510	2,707,894	3,906,851
Reinsurers' share	R0340	4,058	579	31,159	1,172	5,656	30,080	160,180	6,089,814
Net	R0400	27,890	3,618	84,238	182,686	1,096,954	-117,590	2,547,714	9,609,434
Changes in other technical provisions									
Gross - Direct Business	R0410								
Gross - Proportional reinsurance accepted	R0420								-124
Gross - Non-proportional reinsurance accepted	R0430								
Reinsurers' share	R0440								-6
Net	R0500								-118
Expenses incurred	R0550	13,589	11,868	72,160	48,762	416,182	35,791	487,323	3,558,037
Other expenses	R1200								
Total expenses	R1300								3,558,037

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							2,177,627	4,430,547	6,608,174
Reinsurers' share	R1420							445,349	1,110,006	1,555,355
Net	R1500							1,732,278	3,320,541	5,052,819
Premiums earned										
Gross	R1510							2,228,978	4,431,119	6,660,097
Reinsurers' share	R1520							504,305	1,107,066	1,611,371
Net	R1600							1,724,673	3,324,053	5,048,725
Claims incurred										
Gross	R1610							1,753,565	3,843,089	5,596,654
Reinsurers' share	R1620							372,113	811,465	1,183,578
Net	R1700							1,381,451	3,031,624	4,413,076
Changes in other technical provisions										
Gross	R1710							81,620	-1,874	79,746
Reinsurers' share	R1720							21,951	-63,161	-41,210
Net	R1800							59,669	61,287	120,956
Expenses incurred	R1900							258,542	542,011	800,553
Other expenses	R2500									
Total expenses	R2600									800,553

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	GB	IE	US	
		C0080	C0090	C0100	C0110	C0120	C0130	C0140
Premiums written								
Gross - Direct Business	R0110							
Gross - Proportional reinsurance accepted	R0120	410,435	568,731	1,216,189	1,620,741	1,102,944	4,940,172	9,859,212
Gross - Non-proportional reinsurance accepted	R0130	21,565	144,696	74,094	576,764	63,083	2,948,406	3,828,608
Reinsurers' share	R0140	1,682,572	30,873	3,766	20,224	4,690,914	11,151	6,439,499
Net	R0200	-1,250,572	682,554	1,286,517	2,177,281	-3,524,887	7,877,426	7,248,320
Premiums earned								
Gross - Direct Business	R0210							
Gross - Proportional reinsurance accepted	R0220	410,760	598,771	1,187,804	1,655,215	874,523	4,889,077	9,616,151
Gross - Non-proportional reinsurance accepted	R0230	14,445	125,792	73,341	571,961	65,299	2,938,383	3,789,220
Reinsurers' share	R0240	1,673,284	17,608	3,763	18,894	4,449,121	11,307	6,173,977
Net	R0300	-1,248,078	706,955	1,257,382	2,208,282	-3,509,299	7,816,152	7,231,394
Claims incurred								
Gross - Direct Business	R0310							
Gross - Proportional reinsurance accepted	R0320	296,224	478,407	823,801	1,293,438	1,152,059	3,645,855	7,689,784
Gross - Non-proportional reinsurance accepted	R0330	-19,067	112,623	17,717	334,097	97,735	1,889,785	2,432,891
Reinsurers' share	R0340	1,126,171	8,017	-273	22,584	3,541,904	7,691	4,706,095
Net	R0400	-849,014	583,013	841,791	1,604,950	-2,292,110	5,527,950	5,416,580
Changes in other technical provisions								
Gross - Direct Business	R0410							
Gross - Proportional reinsurance accepted	R0420	-140						-140
Gross - Non-proportional reinsurance accepted	R0430							
Reinsurers' share	R0440	-6						-6
Net	R0500	-134						-134
Expenses incurred	R0550	-365,410	169,018	356,518	591,697	-1,168,445	2,075,428	1,658,806
Other expenses	R1200							
Total expenses	R1300							1,658,806

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	BB	CN	FR	GB	
		C0220	C0230	C0240	C0250	C0260	C0270	C0280
Premiums written								
Gross	R1410	6,309	822,451	244,239	941,383	892,909	1,537,772	4,445,063
Reinsurers' share	R1420	4,627		391,883	18,482			414,992
Net	R1500	1,682	822,451	-147,644	922,901	892,909	1,537,772	4,030,072
Premiums earned								
Gross	R1510	6,309	822,451	244,239	1,016,439	893,995	1,537,772	4,521,206
Reinsurers' share	R1520	4,627		391,883	18,482			414,992
Net	R1600	1,682	822,451	-147,644	997,958	893,995	1,537,772	4,106,214
Claims incurred								
Gross	R1610	6,616	667,115	62,011	831,106	721,423	1,558,973	3,847,244
Reinsurers' share	R1620	2,684		363,285	21,119			387,088
Net	R1700	3,932	667,115	-301,275	809,987	721,423	1,558,973	3,460,156
Changes in other technical provisions								
Gross	R1710		-54,944		-44	487	81,923	27,422
Reinsurers' share	R1720	-24,233		-23	0			-24,255
Net	R1800	24,233	-54,944	23	-44	487	81,923	51,677
Expenses incurred	R1900	49,690	-7,706	153,158	101,616	207,913	29,975	534,645
Other expenses	R2500							
Total expenses	R2600							534,645

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		1,705,491	1,705,491
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	R0080		-500,445	-500,445
Best estimate minus recoverables from reinsurance/SPV and Finite Re - total	R0090		2,205,936	2,205,936
Risk Margin	R0100		667,950	667,950
Amount of the transitional on Technical Provisions				
Technical Provisions calculated as a whole	R0110			
Best estimate	R0120			
Risk margin	R0130			
Technical provisions - total	R0200		2,373,442	2,373,442

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		1,498,206	1,498,206
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	R0080		274,478	274,478
Best estimate minus recoverables from reinsurance/SPV and Finite Re - total	R0090		1,223,728	1,223,728
Risk Margin	R0100		293,647	293,647
Amount of the transitional on Technical Provisions				
Technical Provisions calculated as a whole	R0110			
Best estimate	R0120			
Risk margin	R0130			
Technical provisions - total	R0200		1,791,854	1,791,854

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' compen-sation 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	40,431	131,193	6,791	110,513	205,027	136,494	1,209,112	423,913	181,254
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	R0140	21,175	61,822	1,850	17,330	179,078	42,726	455,237	171,699	109,627
Net Best Estimate of Premium Provisions	R0150	19,257	69,371	4,941	93,183	25,950	93,768	753,875	252,215	71,627

S.17.01.02: TP Non-Life, page 2

		Direct business and accepted proportional reinsurance								
		Medical expense insurance	Income protection insurance	Workers' compen-sation 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	205,003	569,337	124,091	1,428,662	1,208,247	910,908	5,109,666	3,357,739	1,200,776
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	R0240	51,167	188,875	209,817	820,112	785,272	463,803	2,447,973	1,263,541	438,429
Net Best Estimate of Claims Provisions	R0250	153,836	380,462	-85,726	608,549	422,975	447,105	2,661,693	2,094,198	762,347
Total Best estimate - gross	R0260	245,434	700,530	130,881	1,539,175	1,413,274	1,047,403	6,318,778	3,781,652	1,382,029
Total Best estimate - net	R0270	173,093	449,833	-80,785	701,732	448,925	540,873	3,415,568	2,346,412	833,974
Risk margin	R0280	1,218	9,244	949	16,857	13,560	11,009	83,440	59,641	22,895
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' compen-sation 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**	246,653	709,774	131,830	1,556,031	1,426,834	1,058,411	6,402,218	3,841,293	1,404,924
Recoverable from reinsurance contract/SPV and Finite Re after the adjustment for expected losses due to counterparty default - total	**R0330**	72,341	250,697	211,666	837,442	964,350	506,530	2,903,210	1,435,240	548,056
Technical provisions minus recoverables from reinsurance/SPV and Finite Re - total	**R0340**	174,312	459,077	-79,836	718,589	462,485	551,882	3,499,008	2,406,053	856,868

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**	8,250	-18,921	40,199	-25,209	397,383	17,816	98,658	**2,962,906**
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	**R0140**	345	1	5,465	0	328	702	8,983	**1,076,368**
Net Best Estimate of Premium Provisions	**R0150**	7,906	-18,922	34,734	-25,209	397,055	17,114	89,675	**1,886,539**

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	63,315	-431	208,171	1,068,253	6,029,632	753,231	4,037,539	26,274,138
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	R0240	12,027	309	66,029	3,808	25,963	125,523	401,978	7,304,627
Net Best Estimate of Claims Provisions	R0250	51,287	-740	142,142	1,064,446	6,003,669	627,708	3,635,561	18,969,511
Total Best Estimate - gross	R0260	71,565	-19,352	248,370	1,043,045	6,427,014	771,047	4,136,197	29,237,045
Total Best Estimate - net	R0270	59,193	-19,662	176,876	1,039,237	6,400,723	644,822	3,725,236	20,856,050
Risk margin	R0280	1,448	61	4,079	51,100	186,381	14,877	52,544	529,302
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	73,013	-19,290	252,449	1,094,145	6,613,395	785,925	4,188,741	29,766,347
Recoverable from reinsurance contract/SPV and Finite Re after the adjustment for expected losses due to counterparty default - total	R0330	12,372	310	71,494	3,808	26,291	126,226	410,961	8,380,994
Technical provisions minus recoverables from reinsurance/SPV and Finite Re - total	R0340	60,641	-19,600	180,955	1,090,337	6,587,104	659,699	3,777,780	21,385,353

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**											25,997,037
N-9	**R0160**	839,342	1,113,700	566,550	247,472	179,508	159,092	112,714	75,655	46,622	66,314	
N-8	**R0170**	794,824	1,194,972	553,192	249,606	192,873	271,356	154,225	74,965	59,917		
N-7	**R0180**	1,133,294	1,159,252	615,015	309,562	197,651	180,849	115,431	110,535			
N-6	**R0190**	1,190,277	1,311,318	726,765	326,303	266,218	169,904	147,734				
N-5	**R0200**	1,383,220	1,963,452	726,937	586,853	360,891	263,569					
N-4	**R0210**	1,723,030	2,345,104	1,161,164	464,941	405,340						
N-3	**R0220**	2,282,713	2,847,527	1,015,271	644,289							
N-2	**R0230**	2,335,020	2,669,148	1,117,155								
N-1	**R0240**	2,711,146	3,332,527									
N	**R0250**	3,626,990										

S.19.01.21: page 1		In current year	Sum of years (cumu-lative)
		C0170	**C0180**
Prior	**R0100**	25,997,037	25,997,037
N-9	**R0160**	66,314	3,406,968
N-8	**R0170**	59,917	3,545,930
N-7	**R0180**	110,535	3,821,590
N-6	**R0190**	147,734	4,138,518
N-5	**R0200**	263,569	5,284,922
N-4	**R0210**	405,340	6,099,579
N-3	**R0220**	644,289	6,789,801
N-2	**R0230**	1,117,155	6,121,323
N-1	**R0240**	3,332,527	6,043,673
N	**R0250**	3,626,990	3,626,990
Total	**R0260**	**35,771,407**	**74,876,330**

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											26,375,622
N-9	R0160				1,848,391	1,545,298	1,233,286	1,041,303	901,726	675,756	616,379	
N-8	R0170			2,219,296	1,921,524	1,456,253	1,213,885	1,042,282	745,701	667,105		
N-7	R0180		2,947,151	2,423,790	1,789,088	1,623,522	1,491,073	1,059,600	896,138			
N-6	R0190	2,522,511	3,154,941	2,243,570	2,050,727	1,839,247	1,412,379	1,193,729				
N-5	R0200	2,375,705	3,323,805	3,084,503	2,666,515	1,961,547	1,684,696					
N-4	R0210	3,216,719	4,464,996	3,801,864	2,772,711	2,330,351						
N-3	R0220	2,009,398	5,706,418	4,191,459	3,280,355							
N-2	R0230	2,652,914	6,223,533	4,950,348								
N-1	R0240	1,675,480	8,240,672									
N	R0250	3,766,917										

S.19.01.21: page 2

		Year end (discounted data)
		C0360
Prior	R0100	2,605,137
N-9	R0160	501,765
N-8	R0170	554,742
N-7	R0180	743,114
N-6	R0190	984,268
N-5	R0200	1,421,228
N-4	R0210	1,987,067
N-3	R0220	2,819,980
N-2	R0230	4,299,005
N-1	R0240	7,346,465
N	R0250	3,011,366
Total	**R0260**	**26,274,138**

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	33,931,642			435,769	
Basic own funds	R0020	17,136,910			-332,327	
Eligible own funds to meet Solvency Capital Requirement	R0050	17,136,910			-332,327	
Solvency Capital Requirement	R0090	**6,699,618**			**299,212**	
Eligible own funds to meet Minimum Capital Requirement	R0100	14,812,099			-305,398	
Minimum Capital Requirement	R0110	**3,014,828**			**134,646**	

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	12,721,894	12,721,894			
Subordinated liabilities	R0140	3,374,476		486,034	2,888,442	
An amount equal to the value of net deferred tax assets	R0160	39,335				39,335
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	17,136,910	13,723,099	486,034	2,888,442	39,335

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	17,136,910	13,723,099	486,034	2,888,442	39,335
Total available own funds to meet the MCR	R0510	17,097,575	13,723,099	486,034	2,888,442	
Total eligible own funds to meet the SCR	R0540	17,136,910	13,723,099	486,034	2,888,442	39,335
Total eligible own funds to meet the MCR	R0550	14,812,099	13,723,099	486,034	602,966	
SCR	R0580	6,699,618				
MCR	R0600	3,014,828				
Ratio of Eligible own funds to SCR	R0620	2.5579				
Ratio of Eligible own funds to MCR	R0640	4.9131				

S.23.01.01: Own funds, page 3 / Reconciliation reserve

		C0060
Reconciliation reserve		
Excess of assets over liabilities	**R0700**	14,486,016
Own shares (held directly and indirectly)	**R0710**	
Foreseeable dividends, distributions and charges	**R0720**	723,583
Other basic own fund items	**R0730**	1,040,540
Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds	**R0740**	
Reconciliation reserve	**R0760**	**12,721,894**
Expected profits		
Expected profits included in future premiums (EPIFP) - Life business	**R0770**	2,568,500
Expected profits included in future premiums (EPIFP) - Non-life business	**R0780**	
Total Expected profits included in future premiums (EPIFP)	**R0790**	**2,568,500**

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	4,940,625
102	Counterparty default risk according to IM	426,917
103	Life underwriting risk according to IM	2,507,694
104	Non-life underwriting risk according to IM	5,445,473
105	Operational risk according to IM	607,039
107	LAC TP according to IM	
108	LAC DT according to IM	-2,488,237

Calculation of Solvency Capital Requirement		C0100
Total undiversified components	R0110	11,439,512
Diversification	R0060	-4,739,894
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	6,699,618
Capital add-ons already set	R0210	
Solvency capital requirement	R0220	6,699,618
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	-2,488,237
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	-2,488,237
Amount/estimate of LAC DT justified by reversion of deferred tax liabilities	R0650	-2,457,799
Amount/estimate of LAC DT justified by reference to probable future taxable economic profit	R0660	-30,438
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	-2,532,415

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	4,754,257

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	173,093	92,803
Income protection insurance and proportional reinsurance	R0030	449,833	394,132
Workers' compensation insurance and proportional reinsurance	R0040		
Motor vehicle liability insurance and proportional reinsurance	R0050	701,732	882,569
Other motor insurance and proportional reinsurance	R0060	448,925	729,819
Marine, aviation and transport insurance and proportional reinsurance	R0070	540,873	366,300
Fire and other damage to property insurance and proportional reinsurance	R0080	3,415,568	3,044,370
General liability insurance and proportional reinsurance	R0090	2,346,412	1,463,050
Credit and suretyship insurance and proportional reinsurance	R0100	833,974	333,398
Legal expenses insurance and proportional reinsurance	R0110	59,193	40,431
Assistance and proportional reinsurance	R0120		24,232
Miscellaneous financial loss insurance and proportional reinsurance	R0130	176,876	167,222
Non-proportional health reinsurance	R0140	1,039,237	223,086
Non-proportional casualty reinsurance	R0150	6,400,723	1,732,127
Non-proportional marine, aviation and transport reinsurance	R0160	644,822	290,658
Non-proportional property reinsurance	R0170	3,725,236	3,300,832

Linear formula component for life insurance and reinsurance obligations

		C0040
MCR_L Result	R0200	1,526,617

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	151,858	
Other life (re)insurance and health (re)insurance obligations	R0240	3,277,806	
Total capital at risk for all life (re)insurance obligations	R0250		2,081,028,082

Overall MCR calculation

		C0070
Linear MCR	R0300	6,280,874
SCR	R0310	6,699,618
MCR cap	R0320	3,014,828
MCR floor	R0330	1,674,904
Combined MCR	R0340	3,014,828
Absolute floor of the MCR	R0350	3,600
Minimum Capital Requirement	R0400	3,014,828

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