somewhat different

Hannover Re (Ireland) Designated Activity Company

2019

Solvency and Financial Condition Report

hannover re®

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Executive Summary

Key figures

in USD 000's	2019	2018
Solvency II Balance Sheet		
Assets	7,479,743	3,468,297
Technical Provisions	5,393,526	1,920,519
Other Liabilities	1,400,883	664,561
Excess of Assets over Liabilities	685,334	883,217
Eligible Own Funds to meet the Solvency Capital Requirement (SCR)		
Tier 1 Basic Own Funds	682,446	621,573
Tier 2 Basic Own Funds	106,865	97,926
Tier 3 Ancillary Own Funds	64,511	51,921
Total Eligible Own Funds (SCR)	853,822	771,420
Eligible Own Funds to meet the Minimum Capital Requirement (MCR)		
Tier 1 Basic Own Funds	682,446	621,573
Tier 2 Basic Own Funds	38,706	31,153
Total Eligible Own Funds (MCR)	721,152	652,726
Capital Requirements		
Solvency Capital Requirement	430,072	346,141
Minimum Capital Requirement	193,532	155,764
Coverage Ratio		
Ratio of Eligible Own Funds to SCR	199%	223%
Ratio of Eligible Own Funds to MCR	373%	419%

A. Business and Performance

Hannover Re (Ireland) Designated Activity Company (hereinafter referred to as “HRI” or “the Company”) is an Irish regulated entity authorised by the Central Bank of Ireland to carry on both non-life and life reinsurance business. HRI is part of the Hannover Re Group. Hannover Re, with gross premium of more than EUR 22 billion, is the third-largest reinsurer in the world. The Hannover Re Group today has a network of more than 100 subsidiaries, affiliates, branches and representative offices worldwide.

HRI plays a pivotal role within this network and is one of the core risk carriers for Hannover Re. We offer reinsurance solutions to leverage our significant capital base for the benefit of clients worldwide as well as other Hannover Re Group entities.

The result for the year as set in Section A Business and Performance have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as adopted by the European Union (“EU”). The HRI profit before tax for the financial year 2019 was USD 121.3m (2018 Profit of USD 78.0m). Overall the result for the financial year 2019 was very positive. Both business segments (“P&C” and “L&H”) contributed to a positive underwriting result and the investment result was satisfactory given the challenging market conditions.

HRI recorded an underwriting profit of USD 100.4m (2018 Profit of USD 55.3m), an investment result of USD 21.7m (2018: 25.8m) and other income and expenses not related to the underwriting or investment result amounted to USD (0.8m) (2018: (3.0m)).

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

B. System of Governance

The Company recognises the importance of a strong System of Governance. In our governance system the central functions are closely interlinked with one another and the roles, tasks and reporting lines are both clearly defined and documented in the context of the so-called “three lines of defence” model.

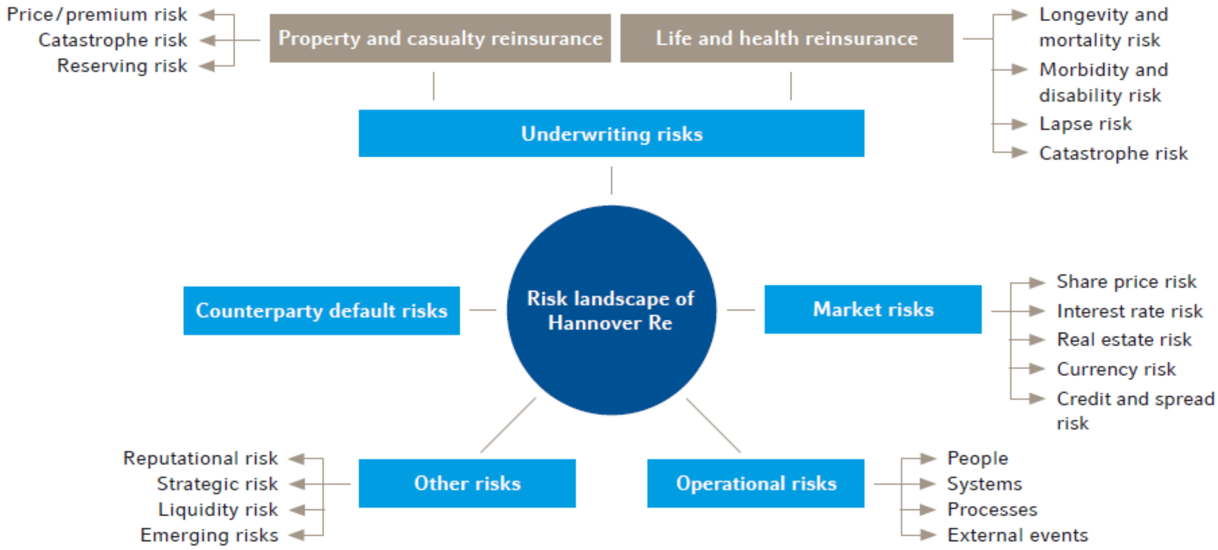
The first line of defence consists of operational management of the risks and controls on a day-to-day basis. The risk management function ensures the second line of defence - risk monitoring. It also receives support from the actuarial function and the compliance function. The third line of defence consists of process-independent monitoring executed by the internal audit function.

All key functions are equipped with appropriate resources and skills. The reporting lines to one another and to the Board Member responsible have been clearly defined. The governance structure of the Company has not materially changed in the year to 31 December 2019.

The individual elements of the System of Governance of the Company are explained in Section B.

C. Risk Profile

In the context of its business operations HRI enters into a broad variety of risks. These risks are deliberately accepted, steered and monitored. They specifically concern underwriting risks pertaining to Property & Casualty, 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. Further details on the Company Risk Profile are included in Section C.



Hannover Re quantifies risks using the internal capital model. For the purposes of calculating the Solvency Capital Requirement, Hannover Re has approval to use a full internal model. The Solvency Capital Requirement as of December 31, 2019 is presented in the following table.

In USD 000's	2019	2018
Underwriting risk - Property & Casualty	359,144	293,478
Underwriting risk - Life & Health	249,361	107,513
Market risk	162,585,	176,340
Counterparty default risk	33,288	39,564
Operational risk	109,942	104,151
Diversification	423,994	352,689
Total risk (pre-tax)	**490,235**	**395,356**
Deferred tax	60,253	49,215
Total risk (post-tax)	**430,072**	**346,141**

On the basis of regulatory requirements, this report has a strong focus on the developments in the financial year 2019. Since year-end 2019, the emergence of the new COVID-19 virus has been declared a pandemic by the World Health Organization. As part of HRI's routine business continuity management and as a response to the emergence of the crisis, HRI has taken significant measures to ensure business continuity. Our capital resources continue to be at a strong level at year-end 2019 with a capital adequacy ratio of 199%, comfortably above our threshold of 130%. This remains true even in light of the most recent interest rate cuts and increases in credit spreads.

D. Valuation for Solvency Purposes

For the purposes of calculating the eligible own funds, HRI values the assets and liabilities pursuant to the provisions of S.I. No. 485/2015 European Union (Insurance and Reinsurance) Regulations 2015.

The valuation for Solvency II purposes is set in principle at the fair value (market value). Insofar as IFRS values appropriately reflect the fair value, these values are applied to Solvency II. HRI has been granted approval by the CBI to use volatility adjustments to value the Best Estimate Liability ("BEL") beginning with 31 December 2018.

The calculation of technical provisions can differ significantly under Solvency II and IFRS. The IFRS technical provisions are grounded in US GAAP and use locked in assumptions for long duration contracts. The Solvency II technical provisions consist of best estimate liability which is based on probabilistic best estimate cashflows with a risk margin derived from our internal capital model.

An analysis of the valuation of the assets and liabilities per the Solvency II balance sheet can be found in Section D.

E. Capital Management

The Ratio of Eligible Own Funds to SCR at 31 December 2019 was 199% (2018: 223%). Own funds in the Solvency II balance sheet consist of basic own funds, which comprise the excess of assets over liabilities (Tier 1 capital) and subordinated loans (Tier 2 capital). Within the Tier 3 own funds is included an Ancillary Own Funds ("AOF") item approved by the Central Bank of Ireland on 14 December 2015.

Further details on capital management are included in Chapter E.

A. Business and Performance

A.1 Business

A.1.1 Business Model

The principal activity of the Company is the transaction of international life & health reassurance and property & casualty reinsurance business.

Life & Health

As one of the largest, internationally operating and established life and health reinsurers, Hannover Re Group offers clients worldwide reinsurance protection in all lines of life and health insurance. With 26 Life & Health offices on all continents, Hannover Re Group has an outstanding international network at its disposal.

We seek to use our global mandate to offer reinsurance solutions to leverage our significant capital base for the benefit of life and health clients worldwide. Our focus is to combine our in-house skills with the considerable resources of the network to develop solutions which can be written, either as retrocession for our sister companies or directly with life insurance companies.

The Company has significant experience in developing structured Financial Solutions for clients which provide financing, capital support or a combination of both. Our in-house expertise in this area means that we have the tools to implement effective solutions in a short space of time. A strong and liquid capital base allows us to provide both cash and non-cash financing solutions to service our clients' needs.

The Risk Solutions business is focused on reinsurance of mortality and morbidity business but does include other exposures such as lapse and longevity. There is a strong focus on the United Kingdom and Asia markets. Our clients are highly rated entities located throughout the world.

The Company also operates a Life branch in Canada which offers all lines of life and health reinsurance – risk solutions, longevity reinsurance and financial solutions.

Property & Casualty

Hannover Re is also one of the largest international property and casualty reinsurers. Through its network of 19 locations, Hannover Re writes business in most property and casualty lines of business.

Within this network the Company plays an important role as one of the major risk carriers. The Company uses both its significant capital base and in-house expertise to provide solutions to other Hannover Re Group entities worldwide as well as reinsurance solutions to insurance companies mainly in North America and the United Kingdom. The Company has increased its focus on the provision of solutions to other Hannover Re Group entities in recent years while continuing to manage its existing book of business and existing client relationships.

The Company writes reinsurance transactions where structured elements may be incorporated to enable the coverage to be tailored to the individual needs of our clients. The appropriate pricing for the actual risks transferred is a crucial element of the considerations. Our risk management and aggregation control tools are consistent with those applied within the property/casualty reinsurance business group of Hannover Re.

Our major lines of business include general and automobile liability, professional indemnity, workers compensation and property. With respect to the latter we endeavour to avoid huge aggregate exposures from major natural catastrophe perils.

Structured features will remain a cornerstone of our product offerings, thereby reducing the volatility of our transactions and hence the capital requirements for our overall book of business.

Our transactions generally cover all or most lines of business written by our clients. The form of these covers will depend on the requirements of our clients as we seek to provide solutions which are tailored to these particular requirements. The majority of our business is written in the form of quota share or aggregate excess of loss reinsurance.

With our considerable experience in assessing risks and our expertise in structuring transactions, combined with the financial strength of the Company and the extensive Hannover Re Group network we are very well positioned and look forward to further successful and profitable years ahead of us.

A.1.2 Results of Operations

The Profit after tax for 2019 was USD 106.1m (2018: USD 68.2m).

Net premium written increased by 7.4% to USD 3,124.1m (2018: USD 2,909.1m). Net premium earned decreased by 2.9% to USD 2,973.2m (2017: USD 2,890.4m).

The underwriting result for the year was USD 110.0m (2018 USD 55.3m) of which the P&C underwriting result for the year was USD 73.9m (2018: USD 39.3m) and the L&H underwriting result for the year was USD 36.1m (2018: USD 16.0m). The P&C segment performed strongly both in business assumed from other Hannover Re Group entities as well as the Third Party Portfolio.

The investment result for the year was USD 21.7m (2018: USD 25.7m). There was a decrease in interest income on the portfolio of 28% compared with 2018. This can be partly attributable to the redemption of shares following the capital repatriation that took place in 2019. Please refer to section E.1.3 Basic own funds.

The Other Activities result for the year was USD -0.8m (2018: USD -3.0m). There was an unrealised gain on the embedded credit derivative of USD 0.2m in 2019 (2018: unrealised loss on the embedded credit derivative of USD 0.8m).

A.1.3 Headquarters, supervisors and auditors

HRI is an Irish Designated Activity Company.

Registered office of HRI

4 Custom House Plaza
Harbourmaster Place
International Financial Services Centre
Dublin 1
Republic of Ireland

The Company's ultimate parent undertaking is HDI Haftpflichtverband der Deutschen Industrie V.a.G., a company incorporated and operating in Germany. The Company's immediate parent company is Hannover Rück Beteiligung Verwaltungs-GmbH (formerly Hannover Life Re AG). The largest group in which the results of the Company are consolidated is that headed by HDI Haftpflichtverband der Deutschen Industrie V.a.G.

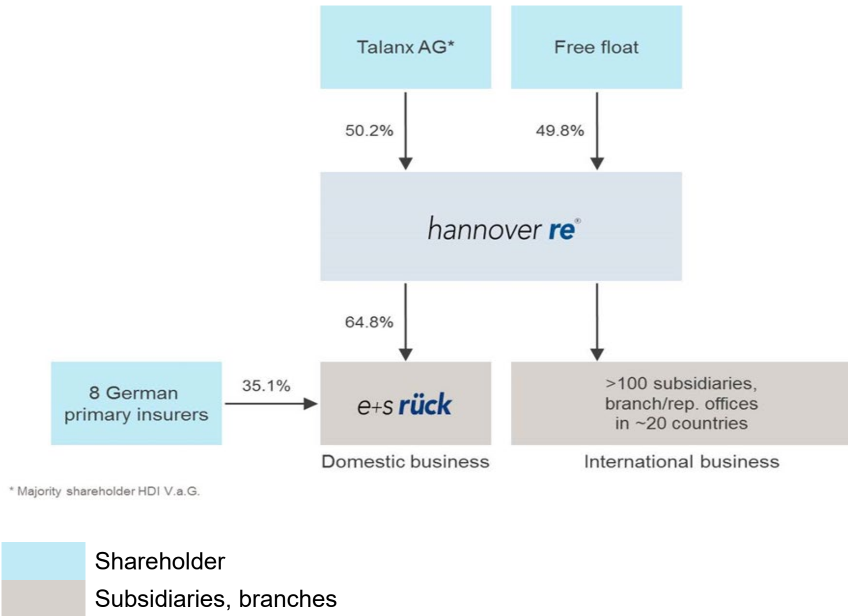
The smallest group in which the results of the Company are consolidated is that headed by Hannover Rück SE. Hannover Rück SE is a European stock corporation, Societas Europaea (SE) has been entered in the Commercial Register of the District Court of Hannover under the number HR Hannover B 6778.

Headquarters address

Karl-Wiechert-Allee 50
30625 Hannover
Germany

A rounded 50.2% of Hannover Rück SE shares are held by Talanx AG. HDI Haftpflichtverband der Deutschen Industrie V.a.G. ("HDI") in turn holds a stake of 79% in Talanx AG.

Hannover Re as a sub-group of the Talanx Group



HRI is subject to supervision by the Central Bank of Ireland ("CBI").

Hannover Rück SE as well as Talanx and HDI are subject to supervision by the Federal Financial Supervisory Authority ("BaFin").

Name of the supervisory authority	Contact details
Central Bank of Ireland ("CBI")	Insurance Supervision Division Central Bank of Ireland New Wapping Street North Wall Quay Dublin 1 D01 F7X3
Federal Financial Supervisory Authority ("BaFin")	Graurheindorfer Straße 108 53117 Bonn Germany Postbox 1253 53002 Bonn Germany

The auditor appointed for HRI and the Group auditor are as follows:

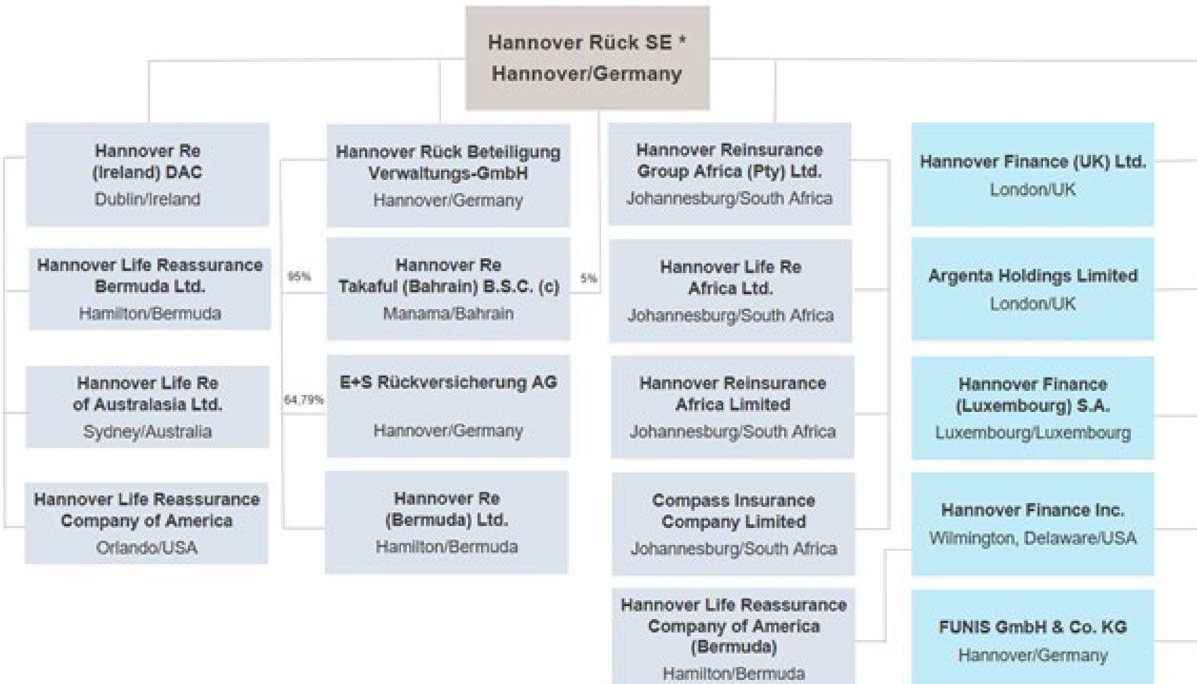
Auditors for HRI and Group	Contact details
HRI	Price Waterhouse Coopers Spencer Dock North Wall Quay North Wall Dublin 1
Hannover Re Group	PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft Fuhrberger Straße 5 30625 Hannover

A.1.4 Group structure

Hannover Rück SE and its subsidiaries (collectively referred to as the "Hannover Re Group" or "Hannover Re") transact all lines of Property & Casualty and Life & Health reinsurance. The Group is present on all continents.

The Group consists of more than 100 subsidiaries, affiliates, branches and representative offices worldwide with a total workforce of 3,083.

Subsidiaries of Hannover Rück SE at 31 December 2019



*Unless otherwise stated the shareholding is 100%.

Reinsurance or Insurance companies

Non-insurance companies

A.1.5 Significant events

There were no significant events during the reporting period.

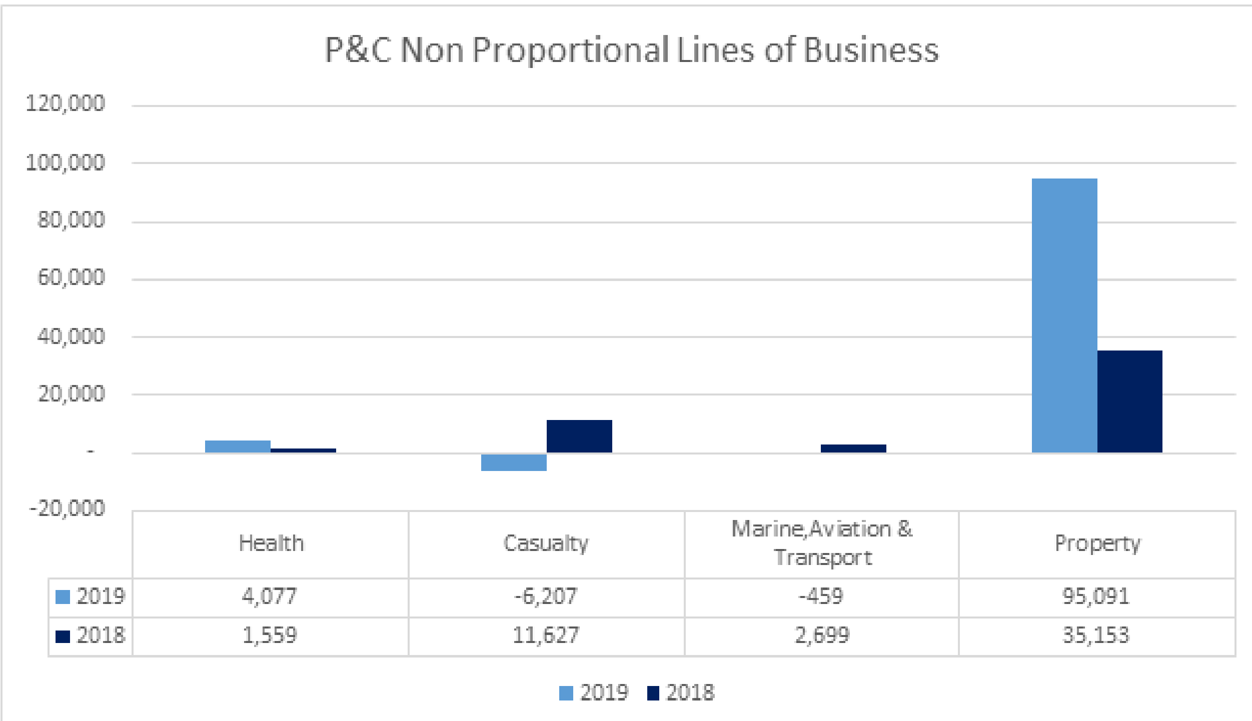
A.2 Underwriting Performance

HRI made an underwriting profit of USD 100.6m during the financial year 2019 (2018: Profit of USD -55.3m), with net earned premiums in the amount of USD 2,973.2m (2018: USD 2,890.4m), net claims incurred in the amount of USD 1,983.7m (2018: 2,008.1m) as well as other income and expenses attributable to the underwriting performance in the amount of USD 879.5m (2018: USD 827.0m).

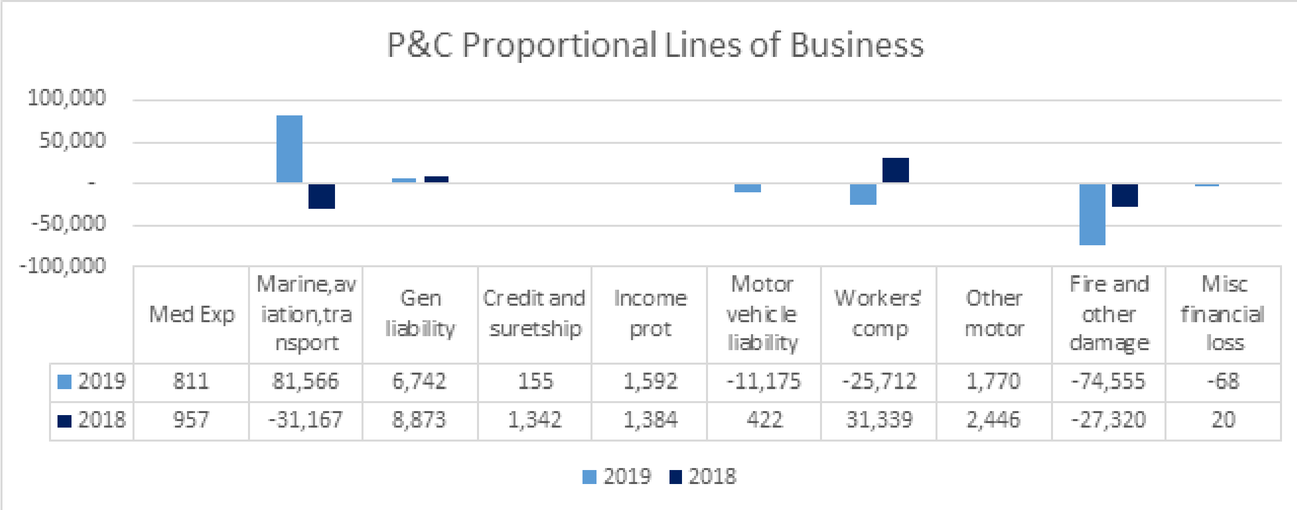
Property & Casualty – Line of business

HRI made an underwriting profit of USD 73.6 m for the P&C lines of business (2018: Profit of USD 39.3m).

The underwriting result analysed by Solvency II for the P&C non-proportional lines of business is as follows (in USD 000's):



HRI write a number of treaties that are multi-line business. Volatility in the underwriting result on the lines of business within these treaties is expected between periods, with offsetting movements across the individual lines of business. The underwriting result analysed by Solvency II for the P&C proportional lines of business is as follows (in USD 000's):



	Med Exp	Marine,aviation,transport	Gen liability	Credit and suretship	Income prot	Motor vehicle liability	Workers' comp	Other motor	Fire and other damage	Misc financial loss
2019	811	81,566	6,742	155	1,592	-11,175	-25,712	1,770	-74,555	-68
2018	957	-31,167	8,873	1,342	1,384	422	31,339	2,446	-27,320	20

The significant drivers of the underwriting result in the financial year 2019 were the Non-Proportional Property USD 95.1m, Proportional Marine, Aviation and Transport USD 81.6m, Non-Proportional Health 4.1m and the Proportional General Liability USD 6.7m lines of business.

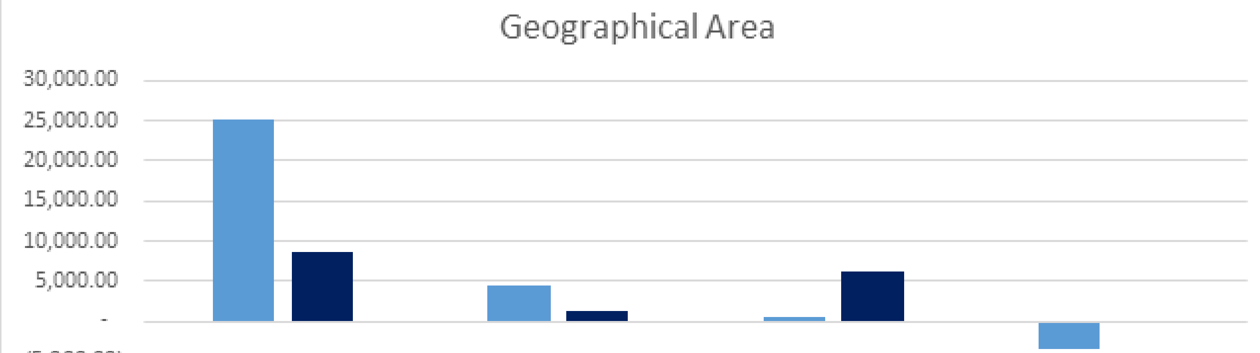
These lines of business, together with the Proportional Workers Compensation USD -25.7m, Non Proportional Casualty USD -6.2m,Proportional Motor Vehicle Liability USD -11.1m and Proportional Fire and Other Damage to Property USD -74.5m, account for 95% of the overall P&C underwriting result.

Life & Health – Line of business

HRI made an underwriting profit of USD 26.7m for the L&H lines of business (2018: Profit of USD 16.0m). The 2019 underwriting result was primarily attributable to the remaining North American business.

Geographical area

The underwriting result analysed by geographical area is as follows (in USD 000's):



	North America	Other	UK	Asia
2019	25,130.00	4,371.00	622.00	(3,402.00)
2018	8,611.00	1,165.00	6,273.00	(82.00)

Asia and North America are the most material geographical areas where the Company carries out business. In 2019, the Asian and North American geographical areas accounted for 81% of total net earned premium (2018: 53%).

A.3 Investment Performance

The Company recorded an investment result of USD 21.7m in 2019 (2018: USD 25.8m). The investment income and expenses are analysed by Solvency II asset classes in the overview.

Investment income

in USD 000's	2019 Ordinary income	2019 Realised gains	2018 Ordinary income	2018 Realised gains
Government Bonds	25,635	2,283	28,967	501
Corporate Bonds	23,124	3,401	33,516	1,282
Collateralised securities	3,782	0	5,806	676
Collective Investment Undertakings	1,325	0	1,725	150
Derivatives	0	1,402	-	288
Deposits other than cash equivalents	167	-	437	-
Other investments	3,153	6,647	3,587	2,013
Cash and cash equivalents	47	-	11	-
Investment income attributable to underwriting result :	**0**	**0**	**0**	**0**
Net funds transferred interest	−16,068	−3,704	−16,947	−227
Total	**41,165**	**10,029**	**57,102**	**4,683**

Investment expenses

in USD 000's	2019 Realised losses	2019 Other expenses	2018 Realised losses	2018 Other expenses
Government Bonds	−7,485	-	−8,471	-
Corporate Bonds	−634	-	−2,405	-
Collateralised securities	0	-	−1	-
Derivatives	−2,613	-	−3,093	-
Other investments	−430	−3,408	−433	−1,387
Investment management expenses	-	−2,468	-	−3,291
Custody fees and other interest expenses	-	−89	-	−88
Finance costs	-	−12,391	-	−16,936
Investment expenses attributable to underwriting result :	**0**	**0**	**0**	**0**
Loan interest	-	-	-	-
Total	**−11,162**	**−18,356**	**−14,403**	**−21,702**

Certain investments are held to back the technical provisions. The income from these investments ("funds transferred interest") is reallocated from the investment result to the underwriting result.

HRI has invested in securitised assets in the form of Collateralised Debt Obligations ("CDOs"). These assets are recorded on HRI's Solvency II balance sheet as "R0170 – Collateralised securities". The resulting income and expenses can be taken from the above table. CDOs are asset 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.

Collateralised Dept Obligations

in USD 000's	2019	2018
Collateralised Debt Obligations	90,370	72,382
Total	**90,370**	**72,382**

The "available-for-sale" reserve in the Equity section of the HRI balance sheet is given below:

Available-for-sale reserve

in USD 000's	2019	2018
Available-for-sale reserve	72,453	8,185
Total	**72,453**	**8,185**

A.4 Performance of Other Activities

A.4.1 Other income and expenses

The following table displays IFRS other income and expenses not included in the underwriting or the investment result:

Other income

in USD 000's	2019	2018
Other various income	0	2,468
Unrealised gain on life settlements yield collar	1,041	1,049
Unrealised gain on foreign currency swap	468	429
Unrealised gain on embedded derivative	209	-
Net gain on foreign exchange translation	629	-
Total	**2,347**	**3,946**

Other expenses

in USD 000's	2019	2018
Other expenses	−1,055	−3,760
Net loss on foreign exchange translation	0	−896
Unrealised loss on embedded derivative	0	−837
Auditor's remuneration (including non-audit services)	−619	−687
Unrealised loss on foreign currency swap	−430	−528
Depreciation	−1,069	−235
Unrealised loss on life settlement yield collar	0	-
Total	**−3,173**	**−6,943**

Other expenses

Other expenses is the material driver of the performance of Other Activities in 2019. Other expenses refers to expenses that are attributable to neither the underwriting result nor the investment result such as the Ancillary Own Funds fee . A reduction in the Ancillary Own Funds fee in 2019 contributed to the lower expenses for 2019.

Unrealised gain on embedded derivative

There was an unrealised gain on embedded derivative of USD 0.2m in 2019 (2018: Unrealised loss of USD 0.8m). There is no embedded derivative at 31 December 2019.

A.4.2 Significant leasing agreements

There are no significant operating or finance lease agreements.

A.5 Any other information

There is no other material information regarding business and performance.

B. System of Governance

B.1 General information on the System of Governance

B.1.1 Governance structure

B.1.1.1 Our Administrative, Management or Supervisory Body

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

Board of Directors

The Board of Directors has ultimate responsibility for the strategy, management and operations of HRI. The Board is collectively responsible for promoting the success of HRI by directing, effectively supervising and overseeing its affairs in a prudent and ethical manner. The Board sets and upholds the values and standards necessary to ensure that HRI's obligations to shareholders and other stakeholders, including clients, employees, regulators and creditors, are met.

The Board sets the direction and mission for HRI and ensures it meets its strategic objectives. The strategic objectives are set in recognition of the Hannover Re Group ("Group") strategy.

The Board has reserved a number of matters for its decision, in accordance with the schedule set out in the Board Charter. These can be summarised as follows:

- Board and Management – comprising matters relating to appointment, endorsement and/ or removal of Board Members, Managing Directors and other individuals who may have a material impact on the risk profile of the Company, establishment of the Board Sub-Committees (appointment of members and Chairperson) and delegating appropriate powers to each of the Committees;
- Corporate Governance – including responsibility to define the corporate governance system, effective and clear structures and reporting arrangements, oversight over the senior management and ensure that an effective Internal Control Framework and the control functions are appropriately established;
- Risk Management, including ORSA – comprising matters relating to the approval of the Risk Management Guideline, discharging the responsibility for HRI's risk management, establishing and monitoring the effectiveness of the Risk Committee and Own Risk and Solvency Assessment ("ORSA") process;
- Solvency and Capital Management – focussing on matters relating to roles and responsibilities for internal model governance and its strategic direction, ultimately ensuring the solvency and capitalisation of HRI remain adequate and appropriate at all times;
- Corporate Issues – including decisions, in conjunction with Group, on material changes in the legal structure or the nature of business undertaken by the Company (i.e. major reorganisations, matters of acquisitions, sale, modification of interests in other companies of strategic relevance), formulation and amendment of strategic principles for HRI, and other corporate issues derived from Company law;
- Operational Matters – ensuring appropriate strategy and processes are defined in relation to succession plan, contingency arrangements and outsourcing;

- Financial Matters, Transactions and Expenditure – comprising of matters such as approval of the annual financial and business plan based on the agreed strategy and risk appetite of HRI, approval of annual regulatory returns, dividend payments, securities, guarantees or similar liabilities for third party payables outside the normal course of business, approval of any significant changes in accounting policies or practices, review of the Five Year Plan, the appointment and removal of auditors;
- Investment Activity – comprising matters such as approval of the investment strategy and guidelines, approval of the acquisition, disposal or mortgage of real estate or similar, including the construction and improvement of buildings. Approval of the appointment or dismissal of outside portfolio managers;
- Remuneration Matters – including, but not limited to annual review of the performance of the Board and individual directors, relative to the Board's objectives.

Committees of the Board

The Board has delegated other matters for decision to the Committees of the Board (Audit Committee, Risk Committee and Compensation Committee) and other Management Committees (Investment Advisory Council and Canada Branch Steering Committee), as contained in their respective documented Terms of Reference.

Day-to-day Management

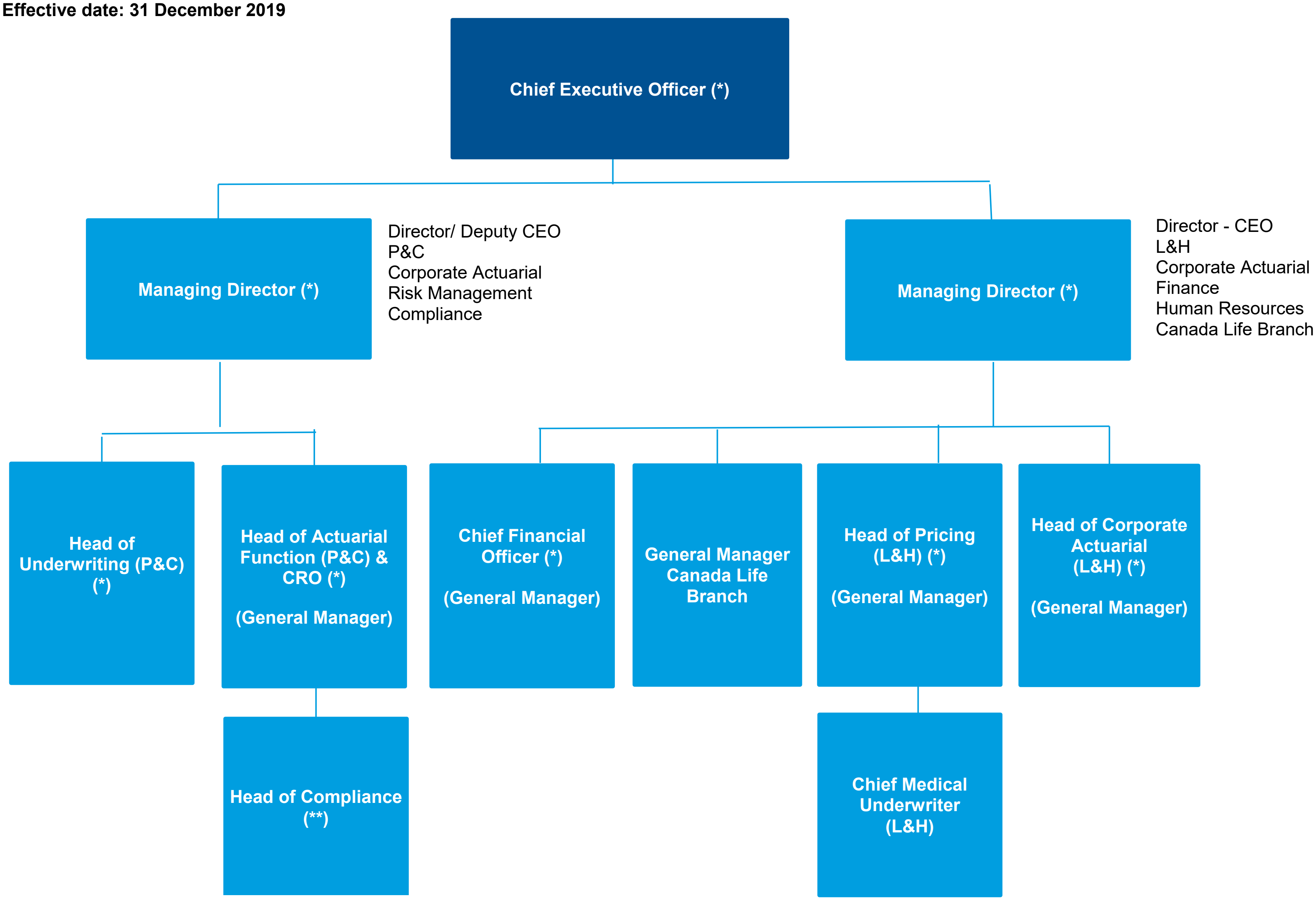
The Board has delegated responsibility for day-to-day management of the business in accordance with the strategy, objectives and policies set by the Board to the CEO and Deputy CEO. Day to day management is defined within the Board Charter as all matters not specifically reserved for approval by the Board or delegated to a Committee. An Operational Council, comprising members of senior management of the Company, assists the CEO and Deputy CEO in the exercise of their functions.

Underwriting authority is delegated in accordance with the Special Underwriting Guidelines – Life and Health, and the Special Underwriting Guidelines – ASI, approved by the Board.

Investments are managed in accordance with the HRI Investment Guidelines.

A high level organization chart, setting out the reporting lines within HRI, is attached behind:

Effective date: 31 December 2019



(*) Member of the Operational Council
(**) Permanent guest of the Operational Council

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

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

B.1.2 Material Changes in the System of Governance

New HRI Head of Compliance Officer started on 1 April 2019.

B.1.3 Material Changes in the System of Governance after the Reporting Period

Effective 1 January 2020, the Deputy CEO became CEO of HRI. The Head of Pricing became Business Centre Head of Life and Health Ireland. With effect from 11 February 2020, the Central Bank of Ireland approved the appointment of a new head of Underwriting ASI.

B.1.4 Recruitment and Remuneration policy

B.1.4.1 Principles of the Recruitment and Remuneration Policy

The Board of Directors in conjunction with the Compensation Committee assesses remuneration packages in an effort to discourage imprudent risk taking. HRI's Recruitment and Remuneration Policy ("the Policy"), in conjunction with the Corporate HRM Principles: Executive and Senior Management Compensation and Benefits, reflects HRI's objectives in respect of corporate governance as well as sustained and long term value for stakeholders. It also provides for an appropriate level of transparency.

The Policy seeks to ensure that employees of HRI are compensated with appropriate incentives in an effort to recognise and encourage enhanced performance in a fair and responsible manner for their individual contributions to the success of HRI. In doing so HRI reviews its remuneration with that of comparable organisations and comparable roles within those organisations.

The Policy also ensures that the duty to mitigate loss is fully recognised.

HRI is committed to ensuring that its remuneration practices enable it to:

- Appropriately compensate employees for the services they provide to the Company;
- Attract and retain employees with skills required to effectively manage the operations and intended future direction of the business;
- Motivate employees to perform in the best interests of HRI and its stakeholders;

HRI does not permit risk-taking that falls outside of HRI's risk appetite policies and guidelines.

This is achieved by ensuring compliance with strict policies and guidelines on recruitment and compensation and appropriate action in the event of non-compliance.

The Board is responsible for monitoring the ongoing performance of Senior Management at General Manager level and above. Senior Management at General Manager level and below is monitored by the CEO through day to day activities and in the more formal setting of the annual performance review process.

B.1.4.2 Information on the individual and collective performance criteria on which any entitlement to share options, shares or variable components of remuneration is based

Employees

HRI seeks to ensure that its employees are provided with appropriate incentives to encourage enhanced performance and are rewarded in a fair and responsible manner. The HRI Bonus Scheme ("the Scheme") governs this process in Ireland and Canada and ensures that the duty to mitigate loss is fully recognised.

Bonus payments are paid to all eligible employees based on individual performance over the previous 12 months and the financial results of the Group for the preceding financial year.

Executive and Senior Management

The HRM Corporate Principles: Executive and Senior Management Compensation & Benefits provide clear guidelines for Executive and Senior Management remuneration, which recognise the long-term interests of the Hannover Re Group, its shareholders and employees.

Total compensation for Executive and Senior Management is highly geared towards performance with the proportion of "at risk" pay increasing/decreasing according to:

a) Group net income,

b) Business Group targets achievement (only for executives with business responsibility)

c) Individual target achievement

The Hannover Re Executive Board in cooperation with the Board of Directors of each Group operation conducts risk assessments of pay packages to ensure that they do not encourage imprudent risk-taking. HRM in Hannover provide appropriate service including benchmarking and survey data to improve the effectiveness at managing the complex relationship between incentives and risk-taking.

B.1.4.3 A description of the main characteristics of supplementary pension or early retirement schemes for the members of the administrative, management or supervisory body and other key function holders

Retirement

The Company operates a pension plan on a defined contribution basis, which means retirement benefits will depend on the total amount contributed by both the Company and individual together with investment income earned. At the time of retirement, the accumulated fund will be available to provide the individual with a range of benefits within approved Revenue limits.

B.1.5 Related party transactions

A capital repatriation of USD 260m was completed during the year, following approval from the CBI. The Company repaid two subordinated loans with Hannover Rück SE of EUR 100m and USD 109m respectively during the year, following approval from the CBI. A dividend of USD 70m was paid to Hannover Rück SE during the year.

B.2 Fit and proper requirements

Under the applicable F&P standards, the HRI CEO, on behalf of the Company, is required to satisfy herself on an ongoing basis that those individuals performing Pre-Approval Control Functions (“PCFs”) and Control Functions (“CFs”) roles comply with the standards set out in the legislation and guidance. In order to comply with the above requirements, the F&P process at HRI is performed in two phases:

- Due diligence performed for new CF/ PCF roles; and
- Ongoing due diligence conducted for existing CF/ PCFs, at least annually.

The purpose of the assessment is to ensure that PCFs and CFs have the relevant qualifications, experience and other necessary qualities and skills appropriate to the function they perform. The person must be able to demonstrate that they have:

- Professional qualifications and capability appropriate to the relevant function;
- Competence and skills appropriate to the relevant function, whether gained through training or professional experience;
- Competence and proficiency through past performance in previous functions;
- Sound knowledge of the business and their new role;
- Clear and comprehensive understanding of regulatory and legal environment, appropriate to their function;
- Have no concurrent responsibilities or conflicts of interest which would impair their ability to discharge their duties;
- Act honestly, ethically and with integrity; and
- Are financially sound.

Initial Due Diligence for PCF and CF roles

The initial due diligence process commences as soon as an offer for new role is accepted by the internal/external candidate. Offers for relevant roles are conditional upon the individual successfully completing F&P assessment and obtaining CBI approval, where applicable.

Annual re-assessment PCF and CF F&P compliance

Subsequent to initial due diligence, the Compliance Function conducts an annual re-assessment process for all PCF and CF roles, to ensure evidence of continuous compliance exists and declarations of compliance are renewed.

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

B.3.1 Risk management system

The risk management system of HRI is articulated through a number of policies and frameworks, the key document being the Risk Management Guideline which encompasses the Risk Strategy, the Risk Management Framework and the System of Limits and Thresholds. The Risk Strategy describes the overall approach to risk and includes the Risk Appetite Statements. The Risk Management Framework sets out how the risk management system is structured in practice, the roles and responsibilities of the stakeholders in the process, and the risk assessment approach. The System of Limits and Thresholds provides the link between the internal model and its use in the risk management of HRI.

A risk register is used as the primary tool for identifying, measuring, monitoring, assessing and recording the risks faced by the business. The risks are identified, analysed and rated by the risk owner allowing for the controls in place, with the support of the Risk Management function. The effectiveness of the controls for each of the risks is also captured within the risk register. The risk register covers both risks that the Company is currently exposed to and emerging risks.

A risk report is prepared by the Risk Management function for review and approval by the Risk Committee at least twice a year. The report includes amongst other things a summary of the risk register and an assessment of the identified risks, the System of Limits and Thresholds report and an update on whether any of the Risk Appetite Statements have been breached. A summary of the risk position is also provided to the Board quarterly.

The ORSA process is conducted on an ongoing basis throughout the year and provides the link between the risk management system and the decision-making processes of the Company. The process is summarised into the ORSA Report, which is prepared by the Risk Management function with input from the other key functions, and is reviewed and approved by the Board at least annually.

B.3.2 Risk management function

The Risk Management function, led by the Chief Risk Officer, is responsible for ensuring the development and ongoing maintenance of an effective risk management system within HRI. The activities of the Risk Management function are overseen by the HRI Risk Committee.

The Risk Management function’s responsibilities and authority are documented in detail within the Risk Management Guideline and are subject to annual review by the Risk Committee and the Board. The Risk Committee’s duties and responsibilities are detailed in the Terms of Reference, which are also subject to annual review by the Board.

The Board has ultimate responsibility for the governance of the internal model in accordance with regulatory requirements, including approval of any major changes or extensions, review and approval of the policies governing the internal model and review of the validation of the model results. The Risk Committee is authorised by the Board to provide support in this respect by providing advice to the Board. This governance structure has been established for several years.

An internal model validation policy is in place that is approved by the Board and requires a validation exercise to be performed at least annually. The validation policy discusses the approach to the validation process, including the tools and methods used.

B.3.3 Own Risk and Solvency Assessment (ORSA)

As mentioned earlier, the ORSA process is conducted on an ongoing basis throughout the year. The process and its results are summarised into the ORSA Report, which is prepared by the Risk Management function with input from the other key functions, and is reviewed and approved by the Board at least annually.

As part of the ORSA process, the risks faced by the Company are considered and the capital position of the Company is projected in line with the business plan to ensure that the capital position supports the business plan and the development of the risks faced. It also analyses the quality of the capital held and assesses the capital position under alternative scenarios. A number of qualitative and quantitative processes are utilised to assess the risks to which the Company is exposed. A range of stress and scenario tests is also employed to test the Company's exposure in stressed conditions.

The ORSA process is integrated into the decision-making processes of the Company through risk management actions taken as a result of the risk assessment processes, analysis of capital management options, analysis of large new business transactions and the selection of risk mitigation techniques.

B.4 Internal Control System

B.4.1 Elements of the internal control system

HRI implements effective internal controls that provide the Board and management with reasonable assurance in respect of the following:

- The Board and management have an understanding of the extent to which the objectives of HRI's operations are being achieved,
- Published financial statements are reliable, and
- Applicable laws and regulations are complied with at all times.

The Internal Control system consists of systematically designed organisational and technical measures and checks within the Company. It ensures that guidelines are followed and risks are managed so that the Company's strategy can be fully implemented. HRI formalises its Internal Control framework within the Internal Control Policy, further supplemented with the Hannover Re Internal Control System Guideline.

HRI Internal Control ("IC") employs fundamental control principles applied consistently across HRI business (including its branches), as follows:

- Segregation of duties across the business and the key processes;
- Clearly documented delegated authorities, reporting lines, roles & responsibilities ;
- Documented policies and procedures;
- Documented key processes, subject to regular review; and
- Four Eyes review of all key reports / outputs.

B.4.2 Internal control framework

The HRI Internal Control framework incorporates the following components, which are set out in detail below:

- HRI Operations – the internal controls in place at Board and Senior Management level and across HRI's operations;
- Financial & Regulatory Reporting – the internal controls in place in relation to the production of accurate and reliable financial statements and regulatory reporting, and in particular the role(s) of the Chief Financial Officer and respective Heads of Actuarial Function/ Corporate Actuarial;
- Compliance with Laws and Regulations – including, but not limited to, the role of the Second Line of Defence Control Functions: Compliance, Risk Management and Actuarial Function; and
- The Role of Internal and External Audit in providing an independent assessment on the effectiveness of internal controls.

B.4.3 Compliance function

The Board of Directors is responsible for maintaining a permanent Compliance Function within HRI. For this purpose, HRI formally appoints the Head of Compliance, who is supported by the Compliance Executive.

The Head of Compliance has a formal regular reporting line to the CRO. In addition, the Head of Compliance has a dotted reporting line to the Head of Group Legal Services in Germany, who acts as Chief Compliance Officer for the Hannover Re Group. The Compliance Function reports to each Risk Committee and to the Board.

The Compliance Function is implemented via the Compliance Charter, which has been approved by the HRI Board. The Charter provides for the independence of the Compliance Function from business activities and sets out the management reporting line to the CRO of HRI and the governance reporting lines into the Risk Committee and the Board of HRI.

The Head of Compliance has overall responsibility for co-ordinating the management of compliance risk, implementation of a robust compliance framework and for the delivery of the Annual Compliance Plan.

The Head of Compliance is responsible for assisting the business in identifying the procedures and controls necessary to meet legal and regulatory obligations and for ensuring that these are consistent with the Compliance Framework. The Compliance Executive supports the Head of Compliance in maintaining a strong compliance culture within HRI, co-ordinating the management of compliance risk and the delivery of the Annual Compliance Plan.

The roles, responsibilities and authority of the Compliance Function, as well as the overview of HRI Compliance framework is documented within the Compliance Charter.

B.5 Internal Audit Function

Hannover Re Group Auditing performs the Internal Audit Function for HRI. The provision of Internal Audit Services is governed by an SLA with Group Auditing, which is approved by the Audit Committee. The SLA is based on a three year rolling Internal Audit Plan (“the Audit Plan”).

There is an established Internal Audit Policy, outlining roles and responsibilities of the Internal Audit Function, as well as the roles and responsibilities of the Board, Audit Committee and HRI Management and employees in relation to the Internal Audit process. The key role of the Internal Audit Function is to assess the adequacy and effectiveness of the Internal Controls system and other elements of the HRI system of governance, in line with a risk based approach.

An Audit Plan is agreed as part of the SLA and comprises a three year Audit Cycle. This Cycle is designed to prioritise risk in the HRI Audit Universe. The Audit Cycle sets out the areas of the business that Group Auditing will review as part of the internal audit process and the timelines for the performance of such a review. The Audit Plan is approved by the HRI Audit Committee. The Audit Plan can be amended as required with agreement from the Audit Committee. The Audit Plan is drafted based upon an assessment of the risks facing HRI and the activities carried out by HRI. Management’s goals and objectives, together with its perceptions of risks and exposures, will also form a key input to Internal Audit’s strategic and operational planning process.

The Audit Plan identifies the business areas to be reviewed as part of the audit process. The scope of the audit for each business area is developed by Group Auditing in conjunction with the Internal Audit Liaison, Senior Management and relevant area management, and is set out in an Audit Instruction.

Group Auditing is responsible for allocating resources to audits and in the event of a conflict of interest or independence requirements breaches, Group Auditing will immediately seek to resolve the matter as appropriate.

The HRI Internal Audit Policy clearly articulates that Group Auditing have the right to review all activities and processes relevant to the performance of the audit/investigation and have full, free and unrestricted access to all the functions, records, assets, property and personnel necessary for the proper discharge of its responsibilities.

The Head of Group Auditing is subject to F&P requirements from HRI’s perspective, and for that purpose was designated as CF 2. An annual due-diligence process is conducted to ensure continuous compliance with F&P requirements. In addition, in line with Solvency II requirements for outsourced key control functions, an existing Non-Executive Director of HRI was appointed as the PCF responsible for outsourced Internal Audit Function (effective December 2015).

B.6 Actuarial Function

The responsibility for the Actuarial Function is delegated to the Head of Corporate Actuarial L&H, in respect of the Life & Health portfolio, and the Head of Corporate Actuarial P&C, in respect of the Property & Casualty portfolio, who have reporting lines to the CEO. Formalised Actuarial Function Terms of Reference are in place, outlining roles and responsibilities of the Actuarial Function, key requirements applicable to its structure, independence and remit.

The Actuarial Function and specifically the respective Heads of the Actuarial Function have responsibilities under Solvency II and the CBI's Domestic Actuarial Regime and Related Governance Requirements under Solvency II. These responsibilities cover the following key areas:

- Co-ordination of the calculation of the Technical Provisions under Solvency II
- Assess the consistency of the data used in the calculation of the Technical Provisions
- Actuarial Opinion on the Technical Provisions
- Actuarial Opinions on the Underwriting policy and Retrocession policy
- Actuarial Opinion on the ORSA process
- Annual Actuarial Function report to the Board including the Actuarial Report on Technical Provisions

The Board of Directors is responsible for maintaining a permanent Actuarial Function within the organisation. For this purpose, HRI formally appoints a Head of Actuarial Function - L&H and a Head of Actuarial Function - P&C, and grants sufficient human and technical resources to achieve the defined objectives. The appointment of the Heads of Actuarial Function is subject to pre-approval by the Central Bank of Ireland in accordance with Fitness and Probity Regulations. The removal of either Head of Actuarial Function must be approved by the Board of Directors, in accordance with the CBI Corporate Governance Requirements.

B.7 Outsourcing

HRI has an Outsourcing Policy in place which is reviewed annually by the Risk Committee and approved by the Board. Under the Outsourcing Policy, documented Service Level Agreements ("SLA"s) are required for each outsourced relationship and must set out service standards to be adhered to. The Head of Compliance acts as Outsourcing Coordinator and oversees compliance with the policy.

The outsourcing management process consists of the following six steps:

- Planning and classification;
- Risk assessment and due diligence;
- Contract management;
- Notification to CBI of proposed outsourced relationship;
- Steering and monitoring; and
- Renewal and/or termination.

The Compliance Function maintains a register of all critical or important outsourcing arrangements which HRI is party to. The outsourcing risk, associated key controls and their effectiveness are monitored and assessed on regular basis as part of risk register cycle coordinated by the Risk Management Function.

In all cases, HRI benefits from the infrastructure, process and resources established within respective Group entities in executing relevant services outlined above.

Appropriate due diligence is conducted on an annual basis to ensure that outsourced arrangements remain adequate and effective. An agreed annual review and reporting process is executed by responsible SLA Relationship Managers for each outsourced agreement, to ensure regular review against agreed service standards is carried out, documented and reported to Operational Council, and any issues escalated in a timely manner.

B.8 Any other information

B.8.1 Evaluating the appropriateness of the system of governance

The system of governance is considered to be appropriate for the Company, taking into account the nature, scale and complexity of the risks inherent in the business.

B.8.2 Other information

There is no other material information regarding the system of governance.

C. Risk Profile

In the context of its business operations HRI 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 Board with respect to the risk appetite of HRI are based on the calculations of risk-bearing capacity and are fundamental to the acceptance of risks.

The risk profile of HRI reflects the Risk Strategy, which is to actively assume Life & Health and Property & Casualty underwriting risks, while accepting other risks including market, counterparty default and operational risks as a consequence of that strategy.

The risk profile did not materially change during 2019 with underwriting risks increasing in line with the Company's new business strategy. This follows from 2018, when the risk profile did materially change due to the impact of the US Tax Cuts and Jobs Act which led to the significant recapture of the vast majority of US-originated Life & Health treaties.

Prudent Person Principle

HRI's assets are invested in line with the Investment Guidelines. The Investment Guidelines are designed in accordance with the 'prudent person principle'.

The HRI asset portfolio consists of a large proportion of liquid and secure assets – with the majority in fixed interest securities. HRI assets are therefore in full compliance with this principle.

Risk Concentrations

HRI monitors and sets limits on its exposure to various risk concentrations including natural catastrophe exposures, per life concentrations, geographic concentrations, asset concentrations and counterparty exposure concentration.

Risk Mitigation

The key technique used to mitigate risks is retrocession. While HRI has both internal and external retrocession arrangements in place, the use of external 3rd party retrocession is limited. HRI has internal retrocession arrangements which share the risks and rewards across the Hannover Re Group. Results are available gross and net of retrocession in order to monitor the continued effectiveness of the arrangements in place.

HRI uses derivative financial instruments to a limited extent. HRI currently only utilises forward currency contracts. The primary purpose of the derivatives is to hedge the non-USD net technical liabilities or the foreign dominated investments.

Stress tests and scenario analysis

HRI performs a wide range of stress tests and sensitivity analysis to test the resilience of the balance sheet under different circumstances. Those included in the most recent ORSA Report covered:

- Various biometric stresses on the key exposures in the Life & Health line of business.
- Tailored stresses on the key exposures in the Property & Casualty line of business.
- A number of economic stresses including an increase in credit spreads, an increase in interest rates and currency up/down movements.
- Other relevant scenarios tailored to HRI such as a significant operational risk event, a large increase in a certain line of Property & Casualty business, a reduction in Life & Health new business and a Brexit scenario.

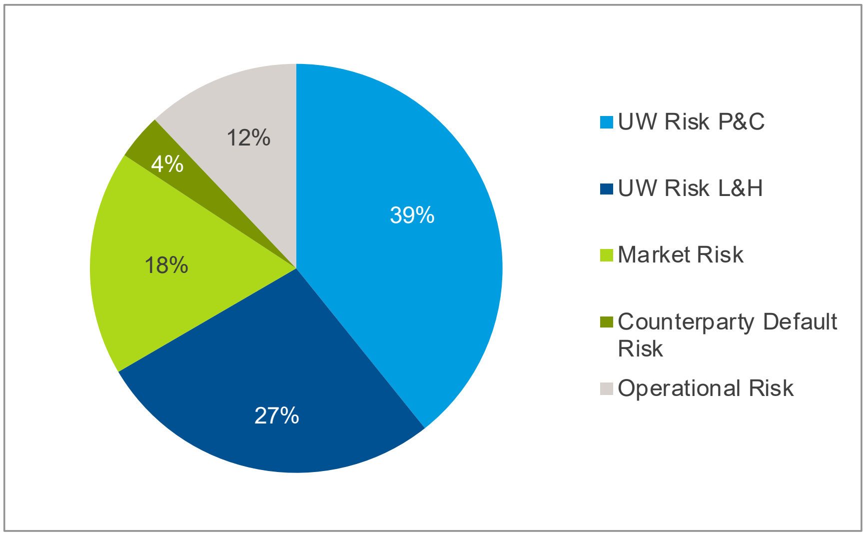
- Relevant combined and reverse stress tests.

Off-balance sheet exposures

Within the Tier 3 own funds is included an Ancillary Own Funds ("AOF") item approved by the Central Bank of Ireland on 14 December 2015. The material terms and conditions of the Tier 3 Ancillary Own Funds are described further in Section E 1.2.2 Ancillary Own Funds. The counterparty for the AOF is Hannover Rück SE.

Quantitative information on Risk Exposures

The Solvency Capital Requirement split by individual risk categories as at 31 December 2019 is below.



C.1 Underwriting risk

C.1.1 Underwriting Risks Property/Casualty and Health Not Similar to Life Techniques

The Property & Casualty line of business expose HRI to the following types of P&C underwriting risk: premium risk, natural catastrophe risk, manmade catastrophe risk and reserving risk.

HRI writes business in most property and casualty lines of business. The most significant lines of business are general and automobile liability, professional indemnity, workers compensation and property.

There has been no material change in Property & Casualty underwriting risk over the reporting period.

C.1.2 Underwriting Risks Life and Health Similar to Life Techniques

HRI's Life & Health business is primarily divided into two types of business, Financial Solutions and Risk Solutions.

Financial Solutions cover all treaties in which the primary emphasis is on financing or capital management components. These include providing both cash and non-cash financing solutions to service clients' needs.

The Risk Solutions business is focused on reinsurance of mortality business but does include other exposures such as morbidity, lapse and longevity. There is a strong focus on the United Kingdom and Asia markets.

The largest source of risk in the Life & Health line is short-term pandemic risk. This reflects HRI's risk profile and is expected due to the exposure to underlying life assurance business in line with the business strategy. Due to the long term nature of life business, long-term mortality is also a significant risk - a relative increase in mortality rates in each future year has a significant impact in terms of the present value of this change.

There has been an increase in Life & Health underwriting risk over the reporting period. The increase was in line with the Company's new business strategy and was mainly an increase in short-term (pandemic) mortality exposure.

C.2 Market risk

HRI's market risk includes interest rate risks, currency risks, default and spread risks and equity risks.

HRI's asset portfolio currently consists in large part of fixed-income securities, and hence interest rate and credit spread risks account for the bulk of the market risk. HRI manages interest rate and currency risks through its asset liability matching program.

HRI is also exposed to changes in credit spreads, where an increase in credit spreads on its investments will reduce the market value of the assets without any corresponding change in the value of liabilities, which remain valued on a risk-free basis. HRI received CBI approval to use a volatility adjustment in the calculation of the technical provisions from year end 2018. In addition, in 2019, HRI applied and received CBI approval to use a dynamic volatility adjustment in the calculation of the SCR from year end 2019. The adjustments provides some protection in the event of a significant widening of credit spreads. The impact of the adjustments is approx. 3% movement in the capital ratio.

Currency risk is not a material risk for HRI as the currency of the majority of technical liabilities and own funds is matched to the currency of the assets. Some residual exposure to exchange rate volatility on the own funds remains due to non-USD denominated assets and business.

There has been no material change in market risk over the reporting period.

C.3 Credit risk

Credit risk or counterparty default risk consists primarily of the risk of complete or partial failure of a counterparty and the associated default on payment. Counterparty default risk is controlled through counterparty exposure limits. Retrocession partners and broker partners are carefully selected and monitored in respect of their creditworthiness in order to minimise counterparty default risk as much as possible. The creditworthiness of cedants and retrocessionaires is monitored through a quarterly review of credit ratings, as provided by external rating agencies. A group-wide Cession Limits system is also in place which must be used before any third party retrocession is placed. It assesses whether there is capacity available for the placement and the creditworthiness of the counterparty.

There has been no material change in Credit risk over the reporting period.

C.4 Liquidity risk

Liquidity risk refers to the risk of being unable to meet financial obligations as they fall due. Due to the nature of the business written by HRI, there is a risk that while HRI has sufficient capital, there could be a short or medium-term liquidity strain. To mitigate this risk, the liquidity position is assessed at least quarterly. The analysis considers the current liquidity position plus known liquidity requirements in the foreseeable future, such as cash financing transactions or loan maturities. The liquidity position over the five year business planning period is also assessed annually.

Short term liquidity requirements are managed by the Finance department, who have a documented liquidity management process in conjunction with the asset manager(s).

The Risk Management Function is responsible for ensuring that HRI maintain access to sufficient liquid assets to ensure that payments can be made in an insurance stress scenario without the need to sell assets backing liabilities. HRI has a board approved Risk Appetite Statement (RAS) to ensure that it has access to sufficient assets to pay the potential claims liability from a 1-in-200 year liquidity event. Adherence to the Risk Appetite Statement ensures that HRI has access to sufficient assets to pay claims as they fall due. The RAS is monitored by the Risk Management Function and reported to the Board each quarter. The liquidity event is defined as the higher of a pandemic or natural catastrophe event of the magnitude of the one in two hundred year event consistent with the internal model. The RAS plays an important role in ensuring that HRI's Own Funds are of a sufficiently liquid nature such that stress scenarios do not result in forced selling of assets backing longer dated liabilities.

EPIFP

As at 31 December 2019, the expected profit included in future premiums ("EPIFP") is USD 153.6m (2018 USD 173.0m).The majority of HRI's business has no surrender values and therefore the EPIFP is any negative BEL by Line of Business.

For the "total amount of the expected profit included in future premiums" required by Art. 295 (5) of the Delegated Regulation 2015/35 please refer to the Quantitative Reporting Template S.23.01.01., item R0790. We explicitly do not use this figure for our liquidity management.

There has been no material change in liquidity risk over the reporting period.

C.5 Operational risk

Operational risk is defined as the risk of loss arising from inadequate or failed internal processes, from personnel and systems, or from external events. Unlike underwriting risks which are deliberately entered into, exposure to operational risk is not desired but is unavoidable. HRI's focus is therefore on minimising operational risk as much as possible.

The risk is strongly associated with human error, systems failure and inadequate controls and procedures. Operational risk, if unmitigated, may result in financial loss, unavailability of services, information deficiencies or loss, and damage to reputation. The key areas where operational risk has the potential to impact HRI's business are as follows:

- Business continuity
- Business processes and data quality
- Compliance
- Fraud
- Human Resources
- IT
- Outsourcing

HRI maintains an Operational Risk Register, where the key areas of operational risk are defined, assigned to risk owners, monitored and assessed twice a year. The results of the assessment are reported to the Risk Committee. HRI also follows the Group-wide Operational Risk Event Reporting Guideline, whereby all operational risk events are reported to Group Risk Management (GRM) by all branches and subsidiaries in the Group. GRM collate the information in a database (the "Loss and Learn" database) which can then be used for learning purposes across the Group. One of the key aims of reporting operational risk events is to benefit from the learning aspect of these events, which should improve the management of such risks in future. In addition, since September 2016 the Hannover Re Group is part of the Operational Risk data eXchange Association (ORX). The internal loss database was transferred to ORX reporting requirements in 2016.

Additionally, the Self-Assessment of Operational Risks (SAOR) process is a well-established Group-wide process that has been in use for several years. The process requires the operational risk owners in each area to assess the maturity level of each operational risk category by answering questions in a standardised template. It also includes scenario analyses for every category of operational risk which include items such as quantitative questions that require the Risk Owners to estimate the expected frequency and severity of operational risk events over the next ten years and the maximum possible loss in one year under each scenario. The SAOR process is carried out on a semi-annual basis is a key component of the operational risk module of the internal model.

There has been no material change in HRI's exposure to operational risk over the reporting period.

C.6 Other material risks

HRI is also exposed to other material risks that are not covered by the categories in the previous sections. These risks include reputational, strategic and emerging risk. These risks are all measured, monitored and rated through HRI's risk register and are regularly reported on to the Risk Committee and/or Board, as appropriate. Group-wide frameworks for managing these risks have also been rolled out and adopted by HRI.

Reputational risk is defined as the risk that adverse publicity regarding HRI's business practices and associations, whether accurate or not, could cause a loss of confidence in the integrity of the company. The risk of loss of confidence relates to all stakeholders, which include existing and potential clients, brokers, suppliers and supervisors. It has the capacity to damage our existing business and our future potential.

Strategic risk refers to the risk of being unable to implement appropriate business plans and strategies, make decisions, allocate resources or adapt to changes in the business environment. It can also arise due to external factors such as changes in the accounting rules, changes in taxation or regulatory changes.

Emerging risks are potential new future risks or evolving risks which are difficult to quantify and may have a high loss potential. Emerging risks are marked by a high degree of uncertainty.

Risks which fall under the above categories include the following:

Brexit

The UK is set to leave the EU on 1 January 2021 following a transition period of 11 months. Focus within the transition period will turn to the future trade negotiations between the UK and EU. While HRI does have exposure to UK-based clients, the latest internal analysis indicates that the implications of Brexit will not be material for HRI. There is a Hannover Group Brexit working party and HRI receives updates from the CRO Forum working group on Brexit where developments over 2020 will continue to be monitored.

IFRS 17

The key objectives of IFRS 17 are to introduce a single IFRS accounting model for all types of insurance contracts for the first time and align insurance accounting with the general IFRS accounting of other industries as much as possible.

This will be a significant change for all listed (re)insurers using IFRS Standards. There are substantial differences in approach under the new regime, including in the valuation of technical provisions and the recognition of profits. Hannover Re has initiated a Group-wide project for the transition to IFRS 17. HRI is actively involved in the Group's project. A local IFRS 17 Steering Committee has also been established which reports regularly to the Audit Committee. No significant adverse consequences are expected.

Cyber risk

As a subsidiary, HRI largely relies on the IT services provided by the Group to mitigate its exposure to cyber risk. A Group-wide Information Security Policy is in place and is annually reviewed and approved by the Executive Board of Hannover Rück SE. Cyber risk is considered as a component of Information and IT security risk, which is one of the operational risk categories on the risk register.

A local Information Security policy has been implemented and an expansion of the Business Continuity Plan to specifically cover cyber risk has been completed.

HRI has been subjected to and continues to be subjected to numerous phishing attempts. These have all been unsuccessful to date and have been used as training examples for all staff to raise awareness and to ensure everyone remains vigilant. While cyber risk can never be fully mitigated, HRI manages it through activities such as training, monitoring access rights, reviewing incident reports, identifying sensitive and critical data and regular reporting at Committee level. Cyber risk training takes place on an annual basis and is mandatory for all employees.

In addition, ASI has some limited exposure to Cyber Risk from an underwriting perspective. This is now captured by the manmade Cat module of the internal model.

Environmental and Climate Change risk

Climate change has been recognised as an emerging risk for some time but there is an increased focus emerging into how (re)insurance entities are planning for and managing the associated risks of climate change and global warming.

Insurance companies face the dual challenge of addressing escalating climate change risks and shifting industry regulations. HRI may face financial, operational or reputational impacts as a result of environmental risk events, which include environmental issues, regulatory enforcement or costs associated with changes in environmental laws and regulations.

Implications for the insurance sector include:

- underwriting of climate change related risks (and the important question of insurability);
- investment activities;
- reporting and disclosure

There is also a social role of the insurance industry and its responsibility to support the wider societal effort to transition to a lower carbon world, and to influence civic and infrastructure planning decisions now to help avoid an insurability gap in the decades ahead. As a result, reputational risk also arises in relation to how the insurance industry as a whole is reacting to climate change and sustainability as it conducts business.

HR collaborate closely with CatRisk modelling entities in order to assess the possible future impact of climate change on insurable risks. In relation to Hannover's commitment in sustainable investments, in 2019 the HR Group announced it is scaling back its exposure to coal-fired power plants and coal mines over the long term.

HRI will continue to embed climate change risks into the risk management system.

C.7 Any Other Information

On the basis of regulatory requirements, this report has a strong focus on the developments in the financial year 2019. Since year-end 2019, the emergence of the new COVID-19 virus has been declared a pandemic by the World Health Organization. As part of HRI's routine business continuity management and as a response to the emergence of the crisis, HRI has taken significant measures to ensure business continuity. In addition, to protect HRI's financial strength in times of financial market volatility, we have implemented strict asset-liability measures including the use of the volatility adjustments.

All employees within the Company are now using the capabilities of mobile/remote working. The Company is technically equipped to do this and we are able to work from home with minimal difficulty. Until the end of June, all travel and all participation in external seminars has been cancelled. We are making use of available alternatives such as conference calls and video-conferences. To date, HRI has not experienced any significant impacts on its business operations due to the coronavirus.

Our risk management is geared to preserving HRI's robust financial strength. By conducting stress tests, e.g. for pandemics or capital market distortions, we have continuously reviewed the resilience of our financial strength. Our capital resources continue to be at a strong level at year-end 2019 with a capital adequacy ratio of 199%, comfortably above our threshold of 130%. This remains true even in light of the most recent interest rate cuts and increases in credit spreads. Our existing asset/liability management, including the use of the volatility adjustment, will help to cushion negative effects of market volatility on our Solvency II capital adequacy ratio.

In life and health business, we currently anticipate only modest impacts on our portfolio. Pandemics form part of our risk management calculations and are appropriate reflected in our capital models. The largest Life and Health exposures are on a subordinated basis and COVID-19 experience is not expected to lead to major losses.

In property and casualty reinsurance, we estimate limited impact to HRI's P&C business. The group retrocessions have been assessed by underwriting teams and on a conservative basis limited insurance losses are estimated.

In relation to investments, we have not seen any defaults to date as a consequence of the recent impact on capital markets due to the coronavirus. It is too early to make any sufficiently valid assessment of the potential scale of potential defaults. However, HRI has a conservative investment portfolio with no listed equity, one private equity position and a high proportion in government bonds. We currently expect to observe a modest increase in the overall solvency ratio due to the increase in market value of assets owing to the effect owing to the fall in interest rates.

It must be noted that current estimates are and will remain uncertain for some time as they depend on further emergence of the crisis and the effectiveness and efficiency of countermeasures. We continue to monitor the situation very closely on all levels as part of the Hannover Re Group.

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 fair value of money should be reflected, i.e. all cash flows have to be discounted.
- When valuing liabilities, no value adjustments are made in order to account for the creditworthiness of the 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 Fair Value Measurement, serves as a source of orientation.

The cash flow view plays a key role in the valuation of technical provisions:

- The value of technical provisions corresponds to the current amount insurance and reinsurance undertakings would have to pay if they were to transfer their insurance and reinsurance obligations immediately to another insurance or reinsurance undertaking.
- Technical provisions must be calculated in a prudent, reliable and objective manner.
- The value of technical provisions shall be equal to the sum of a best estimate and a risk margin
- The calculation of the best estimate (so-called "Best Estimate Liability" or "BEL") utilises cash flow projections, which reflect the settlement of insurance and reinsurance liabilities over the course of the term.
- The BEL is supplemented by a risk margin. 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.

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 HRI 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 Alternative methods for valuation”.

Note

The German Financial Regulatory Authority (BaFin) published an Interpretative Decision on treatment of accounts receivables, accounts payables and funds withheld on 1 January 2019, which is applied by Hannover Re for the first time as at reporting date of 31 December 2019. The paper clarifies regulation of European legislation based on directive 2015/2450 of EIOPA.

According to the Interpretative Decision, payables and receivables shown under respective positions of the Solvency II balance sheet are restricted to balances that are due – the due date of the underlying payment was set before the balance sheet reporting date. Not due balances – the due date of the underlying payment is set after the balance sheet reporting date – should not be included in those Solvency II balance sheet positions and therefore are part of the contractual cash flows reported within best estimates of technical provisions or reinsurance recoverables.

In accordance with the Interpretative Decision, funds withheld need to be recorded on respective balance sheet positions as gross amounts. In rare cases, however, a netting of funds withheld with underlying contractual cash flows will still be applicable.

The outlined clarifications have impact on the Solvency II balance sheet. The following subsections provide further information on changes with respect to the Interpretative Decision.

Due to computational reasons rounding errors of +/- one unit can occur in the tables.

Solvency II balance sheet as of 31 December 2019

The following two pages show the Solvency II and IFRS balance sheets as at 31 December 2019.

The valuation of these items is further described in subsections "D.1 Assets", “D.2 Technical Provisions”, "D.3 Other liabilities" and “D.4 Alternative methods for valuation”.

In USD 000's	Solvency II	IFRS
Assets		
Deferred acquisition costs	-	337,566
Deferred tax assets	14,573	1,492
Property, plant & equipment held for own use	2,231	2,575
Investments (other than assets held for index-linked and unit-linked contracts)	2,327,608	2,304,881
Property (other than for own use)	-	-
Holdings in related undertakings, including participations	50,000	50,000
Bonds	2,182,133	2,169,108
Government Bonds	1,041,491	1,160,100
Corporate Bonds	1,050,272	918,638
Structured notes	-	-
Collateralised securities	90,370	90,370
Collective Investments Undertakings	26,136	26,136
Derivatives	6,561	6,561
Deposits other than cash equivalents	9,702	-
Other investments	53,076	53,076
Assets held for index-linked and unit-linked contracts	-	-
Loans and mortgages	-	10,174
Loans on policies	-	-
Loans and mortgages to individuals	-	-
Other loans and mortgages	-	10,174
Reinsurance recoverables from:	1,358,151	1,380,777
Non-life and health similar to non-life	1,109,992	1,095,391
Non-life excluding health	1,090,194	1,095,391
Health similar to non-life	19,798	-
Life and health similar to life, excluding health and index-linked and unit-linked	248,159	285,386
Health similar to life	-	-
Life excluding health and index-linked and unit-linked	248,159	285,386
Life index-linked and unit-linked	-	-
Deposits to cedants	3,544,882	3,407,104
Insurance and intermediaries receivables	157,976	371,646
Reinsurance receivables	45,178	2,296
Receivables (trade, not insurance)	2,028	2,028
Cash and cash equivalents	27,116	36,818
Any other assets, not elsewhere shown	-	-
Total assets	**7,479,743**	**7,857,357**

In USD 000's	Solvency II	IFRS
Liabilities		
Technical provisions – non-life	3,183,942	3,568,058
Technical provisions – non-life (excluding health)	2,927,692	-
Technical provisions calculated as a whole	-	-
Best Estimate	2,899,270	-
Risk margin	28,422	-
Technical provisions - health (similar to non-life)	256,250	-
Technical provisions calculated as a whole	-	-
Best Estimate	251,799	-
Risk margin	4,451	-
Technical provisions - life (excluding index-linked and unit-linked)	2,209,584	2,046,033
Technical provisions - health (similar to life)	138,847	-
Technical provisions calculated as a whole	-	-
Best Estimate	117,308	-
Risk margin	21,540	-
Technical provisions – life (excluding health and index-linked and unit-linked)	2,070,737	-
Technical provisions calculated as a whole	-	-
Best Estimate	2,027,541	-
Risk margin	43,195	-
Technical provisions – index-linked and unit-linked	-	-
Technical provisions calculated as a whole	-	-
Best Estimate	-	-
Risk margin	-	-
Provisions other than technical provisions	8,235	8,235
Deposits from reinsurers	881,860	883,621
Deferred tax liabilities	23,124	11,752
Derivatives	3,351	3,351
Debts owed to credit institutions	-	-
Financial liabilities other than debts owed to credit institutions	281,397	379,746
Insurance & intermediaries payables	54,137	243,604
Reinsurance payables	35,832	9,578
Payables (trade, not insurance)	3,967	3,967
Subordinated liabilities	106,865	-
Subordinated liabilities not in Basic Own Funds	-	-
Subordinated liabilities in Basic Own Funds	106,865	-
Any other liabilities, not elsewhere shown	2,115	2,115
Total liabilities	**6,794,409**	**7,160,060**
Excess of assets over liabilities	**685,334**	**697,297**

D.1 Assets

D.1.1 Deferred Acquisition costs R0020

The valuation of Deferred Acquisition costs is described in Section D.2 Technical provisions.

D.1.2 Deferred tax assets R0040

in USD 000's	Solvency II	IFRS
Deferred tax assets	14,573	1,492

In the IFRS financial statements balance sheet deferred tax is provided in full in accordance with IAS 12 Income Taxes, using the balance sheet liability method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantially enacted at the Statement of Financial Position date. Deferred tax assets and liabilities are not discounted.

In the Solvency II balance sheet, deferred taxes may result from the following:

- Taxable / deductible temporary differences between the Solvency II balance sheet and the tax base (tax balance sheet); and
- Unused tax loss and tax credits that may be carried forward.

A deferred tax asset (under Solvency II and the statutory account valuations) is recognised only to the extent that it is probable that future tax profits will be available against which the asset can be utilised. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Differences in valuation

The difference in valuation relates to the taxable / deductible temporary differences between the Solvency II balance sheet and the tax base (tax balance sheet).

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

in USD 000's	Solvency II	IFRS
Property, plant & equipment held for own use	2,231	2,575

The market value of internally-used property is calculated as follows:

The market value of the leasehold improvements is Nil as it is assumed that the improvements will revert to the lessor at the expiration of the lease.

With regard to the fixtures, fittings and equipment the valuation base pursuant to the Solvency II balance sheet is seen as identical with the valuation base used for annual accounts in line with commercial law. A revaluation is not conducted for reasons of materiality.

Differences in valuation

The difference between the valuation bases found in the Solvency II balance sheet and the IFRS financial statements is attributable to the net book value of the leasehold improvements under IFRS.

D.1.4 Participations and related undertakings R0090

in USD 000's	Solvency II	IFRS
Participations and related undertakings	50,000	50,000

The investment was made towards the end of 2016 and during 2017 further shares were issued at the original cost therefore cost is considered to remain the best estimate of fair value.

D.1.5 Bonds R0130

in USD 000's	Solvency II	IFRS
Bonds	2,182,133	2,169,108

Government bonds, corporate bonds, structured notes and collateralised securities 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 valued on a theoretical basis.

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.

Differences in valuation

The difference between the Solvency II valuation bases and the IFRS financial statements totalling USD 13.0m result from the reclassification of a surplus note investment with a related party, valued at USD 10.2m, which is classified as “Loans and mortgages” in the comparative IFRS balance sheet and corporate bonds under Solvency II.

The remaining difference of USD 2.8m between Solvency II and IFRS is attributable to the fixed income securities are acquired with the intent and ability to be held until maturity. Under IFRS they are initially recognised at fair value and directly attributable costs. Subsequent to the initial measurement they are measured at amortised cost. The corresponding premiums or discounts are recognised in profit or loss across the duration of the instruments using the effective interest rate method. For Solvency II these assets are valued at fair market value.

D.1.6 Collective Investment Undertakings R0180

in USD 000's	Solvency II	IFRS
Collective Investment Undertakings	26,136	26,136

Collective investment undertakings consist of High Yield Bond Funds and Debt Funds.

The High Yield Bond Funds are actively managed funds, focused on publicly traded bonds. These assets are predominantly valued on the basis of quoted prices, which have been realised on active markets. If not publicly available price quotations are available or the markets in which they originate are deemed to be inactive, the items are valued on a theoretical basis.

D.1.7 Derivatives R0190

in USD 000's	Solvency II	IFRS
Derivatives	6,561	6,561

Financial derivatives (e.g. options or forwards) are valued based on quoted market prices. If there are no market prices, the positions are evaluated theoretically.

Foreign exchange forward contracts, swaps and forward purchases can be evaluated by using the discounted cash flow method on the payoff profiles

The discount rates and the interest rate differentials are the two main factors used in calculating the valuation of the derivatives currently held by HRI.

To protect the Company's investment in Life Settlement products, the Company has entered into a reinsurance treaty with a fellow subsidiary which allows the Company to purchase cover on a policy-by-policy basis ("a yield collar"). The yield collars' unrealised value is the difference between the current market value and the cost of the policy where the market value is less than cost.

D.1.8 Deposits other than cash equivalents R0200

in USD 000's	Solvency II	IFRS
Deposits other than cash equivalents	9,702	-

The deposits other than cash equivalents are short-term highly liquid investments with less than 90 days' maturity from the date of acquisition. The funds are normally invested for periods of less than one month. They are carried at face value which is a reasonably approximate fair value at the reporting date.

Differences in valuation

The difference between the Solvency II value and the IFRS financial statements value result from the reclassification of short term bank deposits which are classified as cash and cash equivalents in the IFRS financial statements.

D.1.9 Other investments R0210

in USD 000's	Solvency II	IFRS
Other investments	53,076	53,076

Life settlements are valued on a policy-by-policy basis, using a discounted cash flow method. The fair value of a policy at the point of purchase is assumed to be equal to the purchase price. The fair-value at future dates is assumed to be the present value of expected future cash flows discounted at the risk-free term structure of spot rates (based on swaps) plus a policy-specific risk margin. The main risks associated with these instruments are longevity and interest rate risk. The yield collars, which are purchased and valued on a policy-by-policy basis, are calculated as the difference between the fair value of the underlying policy and that fair value capped at the annual rate implied in the contract. Yield collars mitigate downside risk but also cap potential gains. The yield collars are classified as derivatives on the Solvency II and IFRS balance sheet.

The secured notes are valued at fair value. The fair value of these notes is calculated using an internal model based on changes in interest rates and credit spreads. The main risks associated with these instruments are counterparty, lapse and mortality risk.

D.1.10 Loans and mortgages R0230

in USD 000's	Solvency II	IFRS
Loans and mortgages	-	10,174

The surplus note is with a related special purpose financial captive insurance company. The fair value is the principal balance with interest accrued to contract terms. The main risk associated with this investment is counterparty and credit risk.

Differences in valuation

The difference between the Solvency II valuation bases and the IFRS financial statements result from the reclassification of the surplus note investment which is classified as a bond on the Solvency II balance sheet.

D.1.11 Reinsurance recoverables R0270

The valuation of Reinsurance recoverables is described in Section D.2 Technical provisions.

D.1.12 Deposits to cedants R0350

in USD 000's	Solvency II	IFRS
Deposits to cedants	3,544,882	3,407,104

These assets primarily consist of funds held on certain contracts representing the collateral contractually withheld by our cedants to cover the technical liabilities HRI has reinsured. Some of these assets are valued at market value using a mark-to-market method. These assets primarily consist of government, semi-government and corporate bonds. Such investments are typically held in trust and managed in accordance with approved investment guidelines. The remainder of these assets are funds held on the cedents general account with an explicit interest rate change attached.

Differences in valuation

There are four main reasons for the difference in valuation of Deposits to cedants.

- The Deposits to cedants are valued at fair value Solvency II whereas they are valued at amortized cost in the IFRS financial statements. This resulted in an increase in the asset under Solvency II of USD 140m
- Under Solvency II the probability-weighted, expected margin is recognised on deposit accounted business, whereas for IFRS the full margin is recognised.
- For Solvency II future periods within the contract boundary are recognised, whereas under IFRS they are not.
- Contract deposits are included in the liabilities (see “Deposits from reinsurers”) under IFRS.

These adjustments resulted in an increase in the reported Deposits to cedants asset under Solvency II of USD 137.8m.

D.1.13 Insurance and intermediaries receivables R0360

in USD 000’s	Solvency II	IFRS
Insurance and intermediaries receivables	157,976	371,646

The carrying amount of Insurance and intermediary receivables is deemed to be a reasonable approximation of fair value. Balances receivable include actual account balances due plus an estimate of the amount due for the period for which accounts have not yet been received. The receivable balance is diversified among a range of cedants. The risk of non-payment by cedants is mitigated by the use of offset clauses in the underlying contract. Following our review of the receivable balances, no impairment was necessary.

Differences in valuation

The difference between the Solvency II value and the IFRS financial statements value result from the reclassification of certain receivables to Technical Provisions in accordance with the due date of the receivable.

D.1.14 Reinsurance receivables R0370

in USD 000’s	Solvency II	IFRS
Reinsurance receivables	45,178	2,296

The carrying amount of Reinsurance receivables is deemed to be a reasonable approximation of fair value. Balances receivable include actual account balances due plus an estimate of the amount due for the period for which accounts have not yet been received. The receivable balance is diversified among a range of retrocessionaires. The risk of non-payment is mitigated by the use of offset clauses in the underlying contract. Following our review of the receivable balances, no impairment was necessary.

Differences in valuation

The difference between the Solvency II value and the IFRS financial statements value result from the reclassification of certain receivables to Technical Provisions in accordance with the due date of the receivable.

D.1.15 Receivables (trade, not insurance) R0380

in USD 000's	Solvency II	IFRS
Receivables (trade, not insurance)	2,028	2,028

The carrying amount of Receivables (trade, not insurance) is deemed to be a reasonable approximation of fair value.

D.1.16 Cash and cash equivalents R0410

in USD 000's	Solvency II	IFRS
Cash and cash equivalents	27,116	36,818

The Cash and cash equivalents are carried at face value and consist of cash at banks. They are carried at face value which is a reasonable approximation to fair value at the reporting date.

Differences in valuation

The difference between the Solvency II value and the IFRS financial statements value result from the reclassification of short term bank deposits which are classified as cash and cash equivalents in the IFRS financial statements.

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").

Determining the TP, the risk-free yield curve including a volatility adjuster component in line with EIOPA requirements are used. A matching adjustment is not applied. Furthermore, the risk-free yield curve is not adjusted as set out in article 308c of the directives 2009/138/EC.

A temporary deduction according to article 308d of the directives 2009/138/EC is not applied.

The concept of calculating the TP "as a whole" is currently not applied to any business written.

HRI has been granted approval by the CBI to use volatility adjustments. This is intended to mitigate the effect of value fluctuations on the bond market. The volatility adjustment according to Article 77 d of the Directive 2009/138/EC was used for calculating the BEL. 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 USD 000's	Amount with Long Term Guarantee measures and transitionals	Impact of volatility adjustment set to zero
Technical provisions	5,393,526	4,952
Basic own funds	792,199	−4,269
Eligible own funds to meet Solvency Capital Requirement	853,822	−4,282
Solvency Capital Requirement	430,072	5,485
Eligible own funds to meet Minimum Capital Requirement	721,152	−3,789
Minimum Capital Requirement	193,532	2,468

For Solvency II purposes, all contracts have to be evaluated over the whole lifetime ("ultimate view"). In general, a contract boundary is set on that future date where at least one of the following criteria is met:

- The future date where the (re)insurance undertaking has a unilateral right to terminate the contract
- The future date where the (re)insurance undertaking has a unilateral right to reject premiums payable under the contract
- The future date where the (re)insurance undertaking has a 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 contract boundaries exist, the projection is based on a look-through approach, i.e. the policies are projected until their natural expiry.

The BEL is shown on a gross basis in the following, i.e. before the reduction of reinsurance recoverables, and 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 like premiums, claims, and expenses as well as amounts related to payables and receivables with a future due date. Best estimate assumptions are used in the calculation of the BEL. The expenses consist of direct administration expenses and costs of on-going operations.

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

Risk Margin (RM)

According to article 37 (1) of the delegated acts (EU) 2015/35, a uniform cost-of-capital approach is used for calculating the risk margin.

The Cost of Capital ("CoC") factor is 6%. The required capital is the SCR under Solvency II according to Hannover Re's internal model. The allocation of the SCR to the lines of business reflects the contribution to the SCR (Art. 37). The distributed capital is run off in future years using appropriate risk drivers for each line of business.

The following have not been used by HRI in the calculation of the Solvency II technical provisions:

- Matching adjustment
- Transitional risk-free interest rate term structure
- Transitional deduction.

D.2.1 Life & Health: Valuation Principles

S.12.01.02 Life and Health SLT Technical Provisions included in the "Quantitative Reporting Templates" section shows the technical provisions associated with each HRI Life & Health line of business.

Valuation Bases

In all cases the technical provisions have been calculated as the sum of the Best Estimate Liability and Risk Margin.

The Best Estimate Liability is calculated as the present value of future cashflows arising within the contract boundary using current best estimate assumptions and the relevant risk-free interest term structure including a volatility adjuster component. The cashflows projected include the following:

- Premiums
- Benefits
- Commissions
- Profit sharing payments
- Expenses

Included in the Best Estimate Liability is an estimation of incurred but not reported claims and outstanding claims where relevant. In addition, the Best Estimate Liability includes payable/receivable amounts that have a future due date.

The Risk Margin is calculated using the cost-of-capital approach as set out in Delegated Acts Solvency II Article 37. The approach used falls under Method 1 of the hierarchy of methods as set out in Guideline 62 of the EIOPA Guidelines on the Valuation of Technical Provisions (i.e. to approximate the individual risks or sub-risks within some or all modules and sub-modules to be used for the calculation of future Solvency Capital Requirements).

Life

Methods

This line of business covers a significant number of treaties, originating primarily in the UK, Asia and US as well as a small number of treaties coming from the rest of the world. The underlying business covers term, permanent and annuity business through traditional reinsurance arrangements, with and without financing, as well as through more structured financing reinsurance arrangements which are more risk remote.

A combination of seriatim data and model points is used to project the best estimate future cashflows using actuarial projection programmes.

The Best Estimate Liability also includes cashflows related to administration and overhead expenses generated within HRI.

Main Assumptions

The primary assumptions for the traditional risk reinsurance arrangements are mortality and lapse.

The base mortality for the UK originated business has been developed based on a UK industry mortality table, calibrated to recent experience. Mortality assumptions include assumptions for future mortality improvement, developed from UK population mortality improvements. The mortality assumption for the Asian business has also been developed based on industry mortality tables and there is no assumption for future mortality improvement.

Lapse assumptions are based on current best estimates, reflecting factors such as duration, issue age, product type, sales channel, risk classes and single/joint life.

The assumptions for the traditional financing are set based on original pricing and historical experience where credible. For the structured transactions, the experience assumptions are generally those developed at pricing but treaty performance relative to expected is monitored and updates made if required.

Valuation Differences

The following table shows the difference between the Solvency II technical provisions and the technical provisions reported in the financial statements:

SII & IFRS Technical provisions
In USD 000's

Line of Business	BEL	RM	TP	IFRS Technical Provisions*	Comparison SII and IFRS
Life	2,027,541	43,195	2,070,737	1,659,047	411,689

*IFRS Technical Provision = Benefit reserve + IBNR + O/S claims reserve + UPR + Profit Commission Reserve- DAC

The IFRS reserves in the financial statements have been calculated under US GAAP principles.

For the traditional arrangements, the benefit reserve component is calculated using a Gross Premium Valuation approach for acquired business and a Net Premium Valuation approach otherwise. The benefit reserve component reflects the best estimate assumptions at the start of the contract with a provision for adverse deviation, whereas Solvency II reflects the current best estimate view of assumptions. The best estimate view of these assumptions has evolved over time arising from own emerging experience and industry studies. Due to different requirements, the provision for expenses within the Best Estimate Liability is higher than that within the IFRS reserves.

The Solvency II technical provisions include a risk margin. The benefit reserve assumptions include a provision for adverse deviation but the IFRS technical provisions do not include a further explicit risk margin similar to the Solvency II methodology.

The Best Estimate Liability is calculated using current risk free interest rates including a volatility adjustment whereas the benefit reserve is calculated using a valuation interest rate set at the start of the contract. The average valuation interest rate is higher than the current risk free rates.

Deposit related cashflows are based on market values under Solvency II whereas these are included within the benefit reserve at book value, with the market value USD 140m higher.

There are large differences between the Solvency II and IFRS technical provisions related to where balances are shown on the respective balance sheets, with payables/receivable amounts of USD 209m included in the Solvency II technical provisions that are not included with the IFRS technical provisions.

For the structured transactions the IFRS reserves are zero. The corresponding Solvency II technical provisions are negative for these deals, representing the expectation of receipt of future fee income, with insignificant risk margins given the remoteness of the risk being provided for.

The Incurred but not reported and outstanding claims reserves are consistent between IFRS and Solvency II.

Health

Methods

This line of business comprises treaties where the material underlying risks relate to critical illness or disability products originating primarily in Asia but also in the UK.

A combination of seriatim data and model points is used to project the best estimate future cashflows using actuarial projection programmes.

Main Assumptions

The primary assumptions are morbidity and lapse. Mortality is also important for some treaties in respect of claim terminations.

Assumptions are set based on original pricing, client provided information, historical experience, and industry specific information.

Valuation Differences

The following table shows difference between the Solvency II technical provisions and the technical provisions reported in the financial statements:

SII & IFRS Technical provisions
In USD 000's

Line of Business	BEL	RM	TP	IFRS Technical Provisions*	Comparison SII and IFRS
Health	117,308	21,540	138,847	133,233	5,615

The IFRS reserves have been calculated under USGAAP principles.

The benefit reserve component reflects the best estimate assumptions at the start of the contract with a provision for adverse deviation, whereas Solvency II reflects the current best estimate view of assumptions. The best estimate view of these assumptions has evolved over time arising from own emerging experience and industry studies.

The Solvency II technical provisions include a risk margin. The benefit reserve assumptions include a provision for adverse deviation but the IFRS technical provisions do not include a further explicit risk margin similar to the Solvency II methodology.

The Best Estimate Liability is calculated using current risk free interest rates including a volatility adjuster component whereas the benefit reserve is calculated using a valuation interest rate set at the start of the contract. The average valuation interest rate is higher than the current risk free rates.

There are differences between the Solvency II and IFRS technical provisions related to where balances are shown on the respective balance sheets, with payables/receivable amounts of USD 5m included in the Solvency II technical provisions that are not included with the IFRS technical provisions.

Allowing for future management actions

HRI makes no allowance for future management actions within the calculation of the L&H technical provisions.

Reinsurance Recoverable

The following table shows the reinsurance recoverable amount per line of business:

In USD 000's

Line of Business	Reinsurance recoverable - Solvency II	Ceded IFRS Technical Provisions*
Life	248,159	281,989
Health	-	

* Ceded IFRS Technical Provision = Benefit reserve + IBNR + O/S claims reserve + UPR + Profit Commission Reserve- DAC

The reinsurance recoverable reflects retrocession in place, both internally within the Hannover Re Group and externally to third parties. Where appropriate, a default adjustment is included.

In general the same approach is used to calculate the reinsurance recoverable as for the calculating the gross Best Estimate Liability, with best estimate future cashflows projected in actuarial systems.

Similar to the assumed technical provisions, there are differences in assumptions and the interest rates used in the calculations.

There are differences between the Solvency II and IFRS technical provisions related to where balances are shown on the respective balance sheets, with payables/receivable amounts of USD 1m included in the Solvency II technical provisions that are not included with the IFRS technical provisions.

Material Changes in Assumptions

As part of the regular and ongoing review of all assumptions, updates were made to the Asian business to reflect experience. There were also model developments implemented during the year in respect of this business. These changes resulted in an overall increase in the Best Estimate Liability.

Level of Uncertainty in the Technical Provisions

The main area of uncertainty around the level of the technical provisions relates to the potential deviation of actual experience from the underlying assumptions and the sensitivity of cash flows to changes in those assumptions.

The most material uncertainty comes from the traditional life and health risk business. Small changes in the mortality rates can have significant effects on the claim payments.

Changes in lapse rates are material for certain products as well. The directionality of the lapse effect is dependent on the treaty and type of reinsurance. In aggregate, the impact of an increase or decrease in lapse rates are both broadly neutral, with offsetting movements between treaties.

Given the risk remoteness of the deals, the structured transactions are a more limited source of uncertainty. The recapture rights of the cedants are an area of uncertainty.

D.2.2 Property & Casualty: Valuation Principles

S.17.01.02 Non-life Technical Provisions included in Section F Quantitative Reporting Templates shows the technical provisions associated with each HRI Property & Casualty line of business. For management reporting purposes underwriting performance is reviewed on a treaty-by-treaty basis as this is how the business is structured. Therefore the analysis below is performed strictly to meet the Solvency II narrative reporting requirements.

For the purposes of calculating the Technical Provisions the same approach is applied regardless of line of business, so the description below applies across all lines of business above.

Methodology

HRI calculate the best estimate liability (“BEL”) on a treaty by treaty basis. Because of the structured nature of the business written by HRI traditional actuarial techniques would not be appropriate, even at a Solvency II segment level, to calculate the best estimate liability at a portfolio level.

In general, the BEL is based on the IFRS reserve minus the expected margin to be earned on the treaty. The expected margin is the weighted average margin derived at the time of pricing, which reflects the present value of the full range of possible outcomes modelled. So the BEL also reflects the weighted average outcome rather than a median scenario. In addition for older treaties where the margin has been recognised a portfolio level reserve is held to reflect the possibility of negative outcomes. However if a particular treaty is not performing as expected a treaty specific approach will be adopted.

Best Estimate Premium Provision

Premium provisions relate to claims events occurring after the valuation date and during the remaining in-force coverage period of policies. The cash flow projections comprise of all future claims payments and expected future premiums stemming from these events.

The best estimate includes all future cash flows associated with existing obligations. Premium provisions take account of expected profits during remaining periods on risk and of the time value of money over the period until settlement of relevant cash outflows. Thus, the best estimate may be negative.

Unless material only premiums that relate to incepted business arising from ‘unearned exposure’ are taken into account in premium provisions.

Best Estimate Claims Provision

All future payments as well as any future premium resulting from those losses which occurred up to the valuation date are taken into account so as to calculate a best estimate claims provision irrespective of loss reporting date. Thus, any cash flow includes also loss payments and premiums for losses which are incurred but not reported at the valuation date. The best estimate claim provision calculation does not include any implicit or explicit redundancy or deficiency of calculated reserves.

Given the payment information up to the due date an ultimate loss estimator and a respective payout pattern is calculated for each treaty so as to project a cash flow of outstanding claims until ultimate loss is achieved.

Current assumptions

There are a number of treaties with specific assumptions as to their ultimate loss position. These are updated as experience develops or circumstances change and documented appropriately.

For treaties where the margin has been recognised a portfolio wide reserve is held on a best estimate basis.

Some treaties written by HRI contain features, such as the start of maintenance fees for example, to encourage the cedant behaviour that was anticipated at the inception of the treaty, such as commutation at a certain point. The expected margin reflects these features and the probability of commutation or payment of additional premiums or fees. So expected cedant behaviour is reflected in the BEL and any exceptions due to poor performance for example are reflected accordingly as necessary.

Expenses

The technical provisions include all cash flows arising from expenses that will be incurred in serving all recognised reinsurance obligations over the lifetime. Furthermore, expenses used for the technical provision calculation include both, allocated and unallocated (overhead) expenses. Allocated expenses are those expenses, which could be directly allocated to individual claims. Overhead expenses include all other expenses, which the undertaking incurs to settle its obligations and which are not directly assignable to settling claims.

Treaty boundary

For the calculation of technical provisions all expected cash flows allocated to treaties have to be projected into the future. For HRI, all treaties are evaluated over the whole lifetime (“ultimate-view”). Therefore, for purposes of measurement, the boundary of a reinsurance treaty is the point at which HRI would no longer be required to provide coverage.

Renewals are treated as a new treaty when HRI is no longer required to provide coverage, or the existing treaty does not confer any substantive rights on the ceding company. Obligations that do not relate to premiums which have already been paid do not belong to the treaty, unless HRI can compel the ceding company to pay the future premium.

Allowing for future management actions

HRI makes no allowance for future management actions within the calculation of the P&C technical provisions.

Reinsurance Recoverables within technical provisions

The technical provisions held correspond to the probability-weighted average of all future cash flows including cash flows recoverable from reinsurance contracts. This takes account of the time value of money and the adjustment for the expected losses due to the default of the counterparty. The following table shows the reinsurance recoverables associated with each relevant HRI Property & Casualty line of business, in USD 000’s:

Line of Business	Reinsurance recoverable
Proportional Reinsurance	
Medical expense insurance	5,283
Income protection insurance	14,516
Motor vehicle liability insurance	51
Other motor insurance	161,099
Marine, aviation and transport insurance	84,121
Fire and other damage to property insurance	425,888
General liability insurance	178,547
Credit and suretyship insurance	238,492
Assistance	-19
Miscellaneous financial loss	1,620
Non-proportional reinsurance	
Marine, aviation and transport insurance	19
Fire and other damage to property insurance	375
Total	**1,109,992**

Risk-free interest rates

HRI does not use any transitional measures or the matching adjustment, but does use the volatility adjustment so the liabilities are discounted at the basic risk-free rate adjusted for the volatility adjustment. The relevant risk free discount rate will apply to each currency.

Risk margin

The Risk Margin is calculated using the cost-of-capital approach as set out in Delegated Acts Solvency II Article 37. The approach used falls under Method 1 of the hierarchy of methods as set out in Guideline 62 of the EIOPA Guidelines on the Valuation of Technical Provisions (i.e. to approximate the individual risks or sub-risks within some or all modules and sub-modules to be used for the calculation of future Solvency Capital Requirements).

Comparison of Net IFRS reserves to Net Solvency II Technical Provisions

The following table shows a comparison of the gross IFRS reserves versus the Solvency II Technical Provisions:

in USD 000's	Amount
IFRS Reserves(1)	2,385,454
Payables/receivables	-224,336
Adjustments to Solvency II basis(2)	-120,041
Best Estimate Liability	2,041,077
Risk margin	32,873
Total P&C Net Technical Provisions	**2,073,950**

(1) IFRS Reserves = Claims Reserves + IBNR + UPR +Contingent Commission Reserve– DAC (Gross minus ceded)

(2) Adjustments are the removal of prudence in the IFRS reserves, reflection of contract boundaries and discounting

D.3 Other Liabilities

D.3.1 Provisions other than technical provisions R0750

in USD 000's	Solvency II	IFRS
Provisions other than technical provisions	8,235	8,235

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

- Bonuses
- Other various provisions
- Provision for share awards
- Provision for audit fees and annual report expenses
- Outstanding invoices
- Provision for stock appreciation rights

The carrying amount of other payables and accrued expenses is deemed to be a reasonable approximation to fair value.

D.3.2 Deposits from reinsurers R0770

in USD 000's	Solvency II	IFRS
Deposits from reinsurers	881,860	883,621

Deposit from reinsurers consists of funds withheld and contract deposits due to/(from) reinsurers.

The funds withheld liabilities primarily consist of funds held on certain contracts representing the collateral contractually withheld by HRI to cover the technical liabilities that the retrocessionaires have reinsured. Some of these liabilities are valued at market value using a mark-to-market method. These liabilities primarily consist of government and corporate bonds. Such investments are typically held in trust and managed in accordance with approved investment guidelines. The remainder of these assets are funds held on general account with an explicit interest rate change attached.

Differences in valuation

There are two main reasons for the difference in valuation of Deposits from reinsurers.

The IFRS contract deposits liabilities for the majority of the L&H business are reclassified as the “Best-estimate liability” in the Solvency II balance sheet. The bases, methods and main assumptions used for their valuation are discussed in the technical provisions section (see section D.2).

Under IFRS a contract deposit liability is incurred for deposit accounted fee income that has been received but not yet “earned” in accordance with IFRS. There is no corresponding liability under Solvency II.

D.3.3 Deferred tax liabilities R0780

in USD 000's	Solvency II	IFRS
Deferred tax liabilities	23,124	11,752

In the IFRS financial statements balance sheet deferred tax is provided in full in accordance with IAS 12 Income Taxes, using the balance sheet liability method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantially enacted at the balance sheet date. Deferred tax assets and liabilities are not discounted.

In the Solvency II balance sheet, deferred taxes may result from the following:

Taxable / deductible temporary differences between the Solvency II balance sheet and the tax base (tax balance sheet); and

Unused tax loss and tax credits that may be carried forward.

Differences in valuation

The difference in valuation relates to the taxable / deductible temporary differences between the Solvency II balance sheet and the tax base (tax balance sheet).

D.3.4 Derivatives R0790

in USD 000's	Solvency II	IFRS
Derivatives	3,351	3,351

Recognition and valuation of obligations pertaining to derivatives are described in "D.1.6 Derivatives R0190".

Differences in valuation

The embedded credit derivative is implicitly included within the value of Deposits to cedants valuation under Solvency II as these assets are valued at fair value. In the IFRS financial statements the embedded credit derivative is separately reported as a derivative. This resulted in a USD (0.2m) difference on the valuation of the derivative assets between Solvency II and the IFRS accounts.

D.3.5 Financial liabilities other than debts owed to credit institutions R0810

in USD 000's	Solvency II	IFRS
Financial liabilities other than debts owed to credit institutions	281,397	379,746

Financial liabilities are valued using the expected cash value of future payment streams for the purposes of Solvency II. During the year HRI reclassified two Subordinated liabilities to Financial liabilities other than debts owed to credit institutions after receiving approval for the repayment of these loans. These loans are expected to be repaid during 2019.

Differences in valuation

The main reason for the difference is a reclassification of a certain Tier 2 subordinated loan to R0870 Subordinated liabilities in Basic Own Funds for the purposes of Solvency II.

The remaining difference is due to loans and borrowings being measured at amortised cost using the effective interest method in the IFRS financial statements. The Solvency II value includes future interest payments and is discounted.

D.3.6 Insurance and intermediary payables R0820

in USD 000's	Solvency II	IFRS
Insurance and intermediary payables	54,137	243,604

The carrying amount of Insurance and intermediary payables is deemed to be a reasonable approximation of fair value. Balances payable include actual account balances due plus an estimate of the amount due for the period for which accounts have not yet been received. The payable balance relates to a number of different cedants.

Differences in valuation

The difference between the Solvency II value and the IFRS financial statements value result from the reclassification of certain payables to Technical Provisions in accordance with the due date of the receivable.

D.3.7 Reinsurance payables R0830

in USD 000's	Solvency II	IFRS
Reinsurance payables	35,832	9,578

The carrying amount of Reinsurance payables is deemed to be a reasonable approximation of fair value. Balances payable include actual account balances due plus an estimate of the amount due for the period for which accounts have not yet been received. The payable balance relates to a number of different retrocessionaires.

Differences in valuation

The difference between the Solvency II value and the IFRS financial statements value result from the reclassification of certain payables to Technical Provisions in accordance with the due date of the receivable.

D.3.8 Subordinated liabilities R0870

in USD 000's	Solvency II	IFRS
Subordinated liabilities	106,865	-

Financial liabilities are valued using the expected cash value of future payment streams for the purposes of Solvency II.

Differences in valuation

Tier 2 subordinated loans are classified as R0870 Subordinated liabilities in Basic Own Funds for the purposes of Solvency II. The IFRS financial statements do not make any distinction in the classification of the loans and as such they are classified as R0810 Financial liabilities other than debts owed to credit institutions.

The remaining difference is due to loans and borrowings being measured at amortised cost using the effective interest method in the IFRS financial statements. The Solvency II value includes future interest payments and is discounted.

D.3.9 Any other liabilities, not elsewhere shown R0880

in USD 000's	Solvency II	IFRS
Any other liabilities, not elsewhere shown	2,115	2,115

The carrying amount of any other liabilities, not elsewhere shown is deemed to be a reasonable approximation of fair value.

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.

HRI uses alternative valuation methods for some balance sheet items, which are subsequently described in more detail in Section D.4.1 below.

D.4.1 Further information on alternative valuation methods

For the calculation of market values for assets and other liabilities which are not listed on a stock exchange, or whose relevant markets are deemed to be inactive at the point in time of valuation, 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, loans	Interest rate curves	Present value method
Unlisted, structured bonds	Interest rate curve, volatility surfaces	Hull-White, Black-Karasinski, Libor Market Model among others
Unlisted CDO/CLO	Risk premiums, default rates, prepayment speed and recovery rates	Present value method
Unlisted equities and participations	Acquisition costs, cash flows, EBIT multiples, book value as applicable	Capitalised earnings method, discounted cash flow method, multiples-based approaches
Unlisted fixed income funds	Audited net asset values ("NAV")	Net asset value method
Currency forwards	Interest rate curves, spot and forward rates	Interest rate parity model
Life settlements	Interest rate curves, spot rates, mortality rates	Discounted cashflow method

The majority of assets valued using alternative valuation methods are 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 from market data.

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

There is no other material information regarding the valuation of assets and liabilities for solvency purposes.

E. Capital Management

E.1 Own Funds

E.1.1 Management of own funds

The objective of own funds management is to maintain sufficient own funds to cover the SCR and MCR with an appropriate buffer on a continuous basis.

The own funds are categorised into three tiers, according to their capacity to absorb losses. Own fund items included in Tier 1 are of the highest quality and, as they are permanently available, demonstrably absorb unexpected losses to enable an undertaking to continue in the case of winding-up, as well as on a going-concern basis. Tier 2 relates to basic own funds, the characteristic of which is that they are able to absorb losses in the case of winding-up of the undertaking (e.g. classic subordinated loans) but not on a going-concern basis. Own funds items not classified as Tier 1 or Tier 2 shall be classified as Tier 3, for example a deferred tax asset or ancillary own funds, which are items of capital other than basic own-funds which can be called up to absorb losses.

The time horizon used for business planning is five years, which aligns with the ORSA and the business plan.

E.1.2 Tiering

The own funds of HRI split by tier as at 31 December 2019 compared to 31 December 2018 was comprised as follows:

in USD 000's	2019	2018
Tier 1	682,446	621,573
Tier 2	106,865	97,926
Tier 3	64,511	51,921
Total eligible own funds to meet SCR	**853,822**	**771,420**

None of the Tier 1 own funds is restricted capital. There is an upper limit 15% of the SCR on the amount of Tier 3 capital that can be counted towards covering the SCR.

The eligible amount of basic own funds to cover the MCR as at 31 December 2019 compared to 31 December 2018 was comprised as follows:

in USD 000's	2019	2018
Tier 1	682,446	621,573
Tier 2	38,706	31,153
Total eligible own funds to meet MCR	**721,152**	**652,726**

There are currently no ring-fenced funds or restrictions on capital fungibility.

E.1.3 Basic own funds

Share capital

The ordinary share capital of HRI as of 31 December 2019 amounts to USD 29.9m (2018: 36.9m). At the beginning of the year, the Company has authorised share capital of 1,000,000 voting and dividend bearing registered shares with a nominal value of EUR 100. The Company's issued share capital consists of 273,309 Redeemable Ordinary Shares (2018: 338,287) with a nominal value of EUR 100 at year end. The shares are fully paid.

The ordinary shares and the redeemable shares of the Company rank pari passu in all respects, with one exception in relation to the redeemable shares, which shall be redeemable in whole or in part at any time or times by notice in writing given by the Company.

Undenominated Capital Reserve

The Undenominated Capital Reserve at 31 December 2019 is USD 24.8m and relates to shares redeemed during 2018 and 2019.

Capital Contribution

The Capital Contribution account, approved by the CBI, related to ordinary share capital at 31 December 2019 is USD 330.5m (2018: USD 590.5m). A capital repatriation of USD 260m was completed during the year, following approval from the Central Bank of Ireland. This has resulted in the reduction of Shareholder's equity.

Net deferred tax asset

The net deferred tax asset recognized as Tier 3 own funds at 31 December 2019 is USD 2.9m (2018: USD 1.6m).

Reconciliation reserve

The reconciliation reserve equals the total Solvency II excess of assets over liabilities reduced by all of the following:

- Share capital
- Net deferred tax asset
- Capital Contribution
- Foreseeable dividends, distributions and charges;

The reconciliation reserve at 31 December 2019 is USD 297.3m (2018: USD -23.5m).

Structure of basic own funds

in USD 000's	2019	2018
Tier 1 unrestricted	682,446	621,573
Ordinary share capital	29,865	36,965
Undenominated capital reserve	24,770	17,670
Capital Contribution	330,468	590,468
Reconciliation reserve	297,343	-23,530
Tier 1 restricted	-	-
Tier 2	106,865	97,926
Subordinated liability	106,865	97,926
Tier 3	2,888	1,644
Net deferred tax asset	2,888	1,644
Total	**792,199**	**721,143**

E.1.4 Ancillary own funds

Within the Tier 3 own funds is included an AOF item approved by the Central Bank of Ireland on 14 December 2015. The material terms and conditions of the Tier 3 AOF are as follows:

	Ancillary Own Funds
Counterparty	Hannover Rück SE
Initial Consideration	EUR 1
Subordinated loan tranche	USD 50m
Total Commitment Sum	The lower of 15% of SCR and 300m
Rank	Tier 3

Upon drawdown of these Ancillary Own Funds, Hannover Rück SE will provide subordinated loans that qualify as Tier 2 basic own funds items. The method of valuation has not changed over the time period.

E.1.5 Comparison of IFRS Financial Statements Equity and Solvency II excess of assets over liabilities

The table below shows the difference between the IFRS Financial Statements Equity and Solvency II Excess of assets over liabilities for 2019.

In USD 000's	2019	2018
Solvency II Excess of assets over liabilities	685,334	883,217
Total shareholders' equity - IFRS	697,297	857,256
Difference	**−11,963**	**25,961**

The difference is further analysed into the key drivers of this revaluation in the table below:

In USD 000's	2019	2018
Difference relating to non-technical positions	−6,011	4,605
Difference relating to technical positions	−7,661	25,033
Difference relating to deferred tax	1,709	−3,677
Total	**−11,963**	**25,961**

The reasons for the difference in valuation on a line by line basis are further described in Section D Valuation for Solvency Purposes.

E.2 Solvency Capital Requirement and Minimum Capital Requirement

E.2.1 Solvency Capital Requirement

The Solvency Capital Requirement split by risk categories as at 31 December 2019 with a comparison to 31 December 2018 is below.

In USD 000's	2019	2018
Underwriting risk - Property & Casualty	359,144	293,478
Underwriting risk - Life & Health	249,361	107,513
Market risk	162,585	176,340
Counterparty default risk	33,288	39,564
Operational risk	109,942	104,151
Diversification	423,994	325,689
Total risk (pre-tax)	**490,325**	**395,356**
Deferred tax	60,253	49,215
Total risk (post-tax)	**430,072**	**346,141**

The Solvency Capital Requirement has been calculated based on the approved internal model. HRI was also granted approval in 2019 to use a dynamic volatility adjustment. This was implemented for the calculation of the required capital as at year end 2019.

The changes in the SCR over the reporting period were as follows:

- an increase in Property & Casualty underwriting risk mainly due to the increased exposure and a model change in 2019
- a significant increase in Life & Health underwriting risk due to the new business and growth in the Asia business. Increases are in line with new business strategy. Main drivers are pandemic and morbidity risk
- a decrease in market risk due to the introduction of the Dynamic Volatility Adjustment
- a decrease in counterparty default risk due to lower default exposures from the L&H business
- an increase in operational risk capital due to a parameter change within the SAOR template

E.2.2 Minimum Capital Requirement

The Minimum Capital Requirement at the end of 2019 was USD 193.5m (2018: 155.8m). The ratio of eligible own funds for the Minimum and Solvency Capital Requirements was 373% (2018: 419%). The MCR is currently equal to the cap which is the maximum level of the MCR i.e. 45% of the SCR.

E.3 Use of the duration-based equity risk sub-module in the calculation of the Solvency Capital Requirement

This is not applicable to HRI.

E.4 Differences between the standard formula and any internal model used

E.4.1 Technical Specifications on the Internal Model

HRI documents the uses of the internal model in a Use Test Register. The key local applications are:

- assessing the overall required capital including the diversification benefit
- in risk budgeting and allocation
- monitoring of risk appetite statements
- for strategic decisions
- in pricing
- testing risk mitigation options
- to quantify the severity and frequency of the risks faced by HRI.

There are also locally important uses at a group level such as setting margins and investment benchmarks and informing the strategic asset allocation.

The complete risk landscape of Hannover Rück SE consists of the primary categories of underwriting risks (Property & Casualty, Life & Health), market risks, counterparty default risks, operational risks and other risks.

The scope of the internal model is such that the risk categories addressed quantitatively by the model are Life & Health underwriting risk, Property & Casualty underwriting risk, Market risk, Counterparty default risk and Operational risk. These risks and their interactions are accounted for in the representation of target variables through the application of stochastic simulation models. There are no separate modules for other risks in the internal model for the following reasons:

- In contrast to existing risks, emerging risks concern potential risks that can develop at short notice. It is more appropriate to assess these risks on a qualitative basis. Capital requirements arising from emerging risks would only occur when a qualitative assessment leads to the conclusion that the risks could materialise.
- Liquidity risk relates to the short-term payments which could necessitate the sale of assets. A financial loss can occur if the sales process leads to deterioration in the market price as a consequence of the scale of the transaction or due to illiquid markets. It is assumed that the company is not in a position to execute transactions which could lead to a shift in the market. Market illiquidity is covered within the calibration of economic scenarios, and is therefore covered by market risk.
- Reputational risk and strategic risk do not affect the available capital over a one-year horizon, but rather the franchise value of the company exclusively. They are therefore excluded from the scope of the internal model.

It should be noted that concentration risk is taken into account in the calculation of required capital for every risk category.

E.4.2 Implementation of the Internal Model

A stochastic model is used to project own funds under a range of different scenarios. The Solvency Capital Requirement is derived from the 99.5 percentile of the resulting distribution. The internal model currently covers all business units and risk categories.

E.4.3 Comparison of the Internal Model with the Standard Formula

Generally speaking, the internal model represents a probability calculation approach, while the standard formula is factor-based. For natural and man-made catastrophes, the internal model uses exposure data for all risks whereas the standard formula only uses exposure data for EU proportional business. Premium figures are used for all other areas. Retrocessions and reinsurance cover are applied precisely in the internal model, whereas the standard formula only permits the use of approximate values. The appropriate treatment of risk mitigating features, such as profit commissions and ratio caps for ASI business, are also fully allowed for within the internal model whereas the standard formula ignores these features. Further differences arise from correlation assumptions and the presentation of retrocessions. The latter cannot be expressed exactly in the standard formula. In the internal model, the premium and reserve risk on the Property & Casualty line of business is modelled by estimating marginal distributions for every risk factor, with their mutual dependencies assessed on the basis of company-specific historical data or expert judgement. This results in more refined segmentation than under the standard formula. It also leads to non-linear dependency structures, whereas a correlation approach would be used under the standard formula. The internal model covers all risks from provisions relating to incepted unearned premiums within the reserve risk sub-module instead of the premium risk sub-module. The volume measure for the reserve risk of a particular segment is the best estimate ultimate claims provision relating to that segment instead of the best estimate outstanding ultimate claim provision as set out in the regulations.

For Life & Health underwriting risk, the standard formula does not sufficiently allow for the portfolio and diversification effects of a globally active reinsurer. It also does not allow for diversification between geographies. Relatively static scenarios or factors are used to determine the necessary amount of capital for every risk category within market risk. The internal model allows for diversification between geographies and thus generates a more comprehensive set of scenarios in an integrated way. While the standard formula explicitly allows for concentration risk, this risk is implicitly represented in the internal model where applicable.

Default risks in the internal model follow a stochastic model for credit spreads. This produces a complete distribution of random variables, which represents the counterparty default risk. The standard formula calculates the required capital for the counterparty default risk on the basis of multiples of standard deviations of the respective loss distribution. The internal model uses a comprehensive matrix in which the transitions between the individual valuations are described, as opposed to the standard formula, which is premised on the probability of default for every valuation class and on certain correlation assumptions between the counterparties. The internal model includes a fixed recovery rate for every counterparty, and permits the full use of collaterals. In the standard formula, the recovery rate and the use of collaterals depends on the economic situation of the counterparty. For new business, the internal model uses the fully stochastic exposure at default, subject to any risk mitigation measures, while the standard formula uses the difference between the SCRs with and without the corresponding measures as the constant exposure at default.

The risk measure used is the change in own funds as used to calculate the SCR over a one year time horizon. The confidence level used is the 1-in-200 year, or 99.5%, level, in line with Solvency II guidance.

Data

All data used in the internal model is subject to the data standards for internal models. This design is appropriate in order to be able to supply timely data which is free from significant errors. HRI relies on data which is also used in other business applications to ensure consistent information and data usage within the company. Examples include the individual data sets from cash flow projections underlying the calculation of the Best Estimate Liability and the IFRS accounting methods, through which a reference point is provided for other established reporting processes. Subsequently, many individual data sets are subject to numerous quality assessments and both internal and external auditing.

The plausibility and credibility of information and data is established by way of repeated discussion with the suppliers. Calibration assumptions are reported and made transparent in calibration reports, which are discussed with the suppliers of information and the recipients of model results. The effect of influencing parameters is presented in sensitivity analyses. In particular, significant assumptions which are based on expert assessments are documented separately.

Relevant historical company data and internal company data is used to calibrate the model, particularly for underwriting risk. Long-term market data is used for the calibration of market and counterparty risk.

The risk profile of HRI consists of Property & Casualty and Life & Health underwriting risks, market risks, counterparty default risks, operational risks and other risks including strategic risk, emerging risk, liquidity risk and reputational risk. The risk categories explicitly covered by the internal model are underwriting risks, market risk, counterparty default risk and operational risk. The other risks are managed and monitored using other appropriate methods.

E.5 Non-compliance with the Minimum Capital Requirement and non-compliance with the Solvency Capital Requirement

E.5.1 Non-Compliance with Minimum Capital Requirement

There have been no instances of non-compliance with the Minimum Capital Requirement.

E.5.2 Significant Non-Compliance with Solvency Capital Requirement

There have been no instances of non-compliance with the Solvency Capital Requirement.

E.6 Any other information

There is no other material information regarding capital management.

Abbreviations and Glossary

AOF	Ancillary Own Funds
ASI	Advanced Solutions Ireland
BaFin	Bundesanstalt für Finanzdienstleistungsaufsicht, Federal Financial Supervisory Authority
BEL	Best Estimate Liability
BOF	Basic Own Funds
CBI	Central Bank of Ireland
CDO	Collateralised Debt Obligation
CLO	Collateralised Loan Obligation
CEO	Chief Executive Officer
CFs	Control Functions
CoC	Cost of Capital
DAC	Deferred Acquisition Cost
EBIT	Earnings before interest and taxes
EIOPA	European Insurance and Occupational Pensions Authority
EPIFP	Expected profits included in future premiums
F&P	Fitness and Probity
FOGs	Financial options and guarantees
GAAP	Generally Accepted Accounting Principles
HGB	Handelsgesetzbuch, German Commercial Code
HRI	Hannover Re (Ireland) Designated Activity Company
IBNR	Incurred But Not Reported
HRM	Human Resource Management
IAS	International Accounting Standard
IFRS	International Financial Reporting Standards
L&H	Life and Health
MCR	Minimum Capital Requirement
NAV	Net asset value
ORSA	Own Risk and Solvency Assessment
P&C	Property and Casualty
PCFs	Pre-approval Control Functions
RM	Risk margin
SCR	Solvency Capital Requirement
SE	Societas Europaea
SLA	Service Level Agreement
TP	Technical Provisions
UPR	Unearned Premium Reserve

Quantitative Reporting Templates

All values are in USD 000’s if not otherwise stated.

If a value amounts to less than USD 0.5, we show “0” in the respective cell. Empty cells represent the fact that HRI has no value to state.

Rounding differences of +/- one unit can occur in the following tables.

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**	14,573
Pension benefit surplus	**R0050**	-
Property, plant & equipment held for own use	**R0060**	2,231
Investments (other than assets held for index-linked and unit-linked contracts)	**R0070**	2,327,608
Property (other than for own use)	**R0080**	-
Holdings in related undertakings, including participations	**R0090**	50,000
Equities	**R0100**	-
Equities - listed	**R0110**	-
Equities - unlisted	**R0120**	-
Bonds	**R0130**	2,182,133
Government Bonds	**R0140**	1,041,491
Corporate Bonds	**R0150**	1,050,272
Structured notes	**R0160**	-
Collateralised securities	**R0170**	90,370
Collective Investments Undertakings	**R0180**	26,136
Derivatives	**R0190**	6,561
Deposits other than cash equivalents	**R0200**	9,702
Other investments	**R0210**	53,076
Assets held for index-linked and unit-linked contracts	**R0220**	-
Loans and mortgages	**R0230**	-
Loans on policies	**R0240**	-
Loans and mortgages to individuals	**R0250**	-
Other loans and mortgages	**R0260**	-
Reinsurance recoverables from:	**R0270**	1,358,151
Non-life and health similar to non-life	**R0280**	1,109,992
Non-life excluding health	**R0290**	1,090,194
Health similar to non-life	**R0300**	19,798
Life and health similar to life, excluding health and index-linked and unit-linked	**R0310**	248,159
Health similar to life	**R0320**	-
Life excluding health and index-linked and unit-linked	**R0330**	248,159
Life index-linked and unit-linked	**R0340**	-
Deposits to cedants	**R0350**	3,544,882
Insurance and intermediaries receivables	**R0360**	157,976
Reinsurance receivables	**R0370**	45,178
Receivables (trade, not insurance)	**R0380**	2,028
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**	27,116
Any other assets, not elsewhere shown	**R0420**	-
Total assets	**R0500**	**7,479,743**

S.02.01.02: Balance sheet, page 2		Solvency II
Liabilities		**C0010**
Technical provisions – non-life	**R0510**	3,183,942
Technical provisions – non-life (excluding health)	**R0520**	2,927,692
Technical provisions calculated as a whole	**R0530**	-
Best Estimate	**R0540**	2,899,270
Risk margin	**R0550**	28,422
Technical provisions - health (similar to non-life)	**R0560**	256,250
Technical provisions calculated as a whole	**R0570**	-
Best Estimate	**R0580**	251,799
Risk margin	**R0590**	4,451
Technical provisions - life (excluding index-linked and unit-linked)	**R0600**	2,209,584
Technical provisions - health (similar to life)	**R0610**	138,847
Technical provisions calculated as a whole	**R0620**	-
Best Estimate	**R0630**	117,308
Risk margin	**R0640**	21,540
Technical provisions – life (excluding health and index-linked and unit-linked)	**R0650**	2,070,737
Technical provisions calculated as a whole	**R0660**	-
Best Estimate	**R0670**	2,027,541
Risk margin	**R0680**	43,195
Technical provisions – index-linked and unit-linked	**R0690**	-
Technical provisions calculated as a whole	**R0700**	-
Best Estimate	**R0710**	-
Risk margin	**R0720**	-
Contingent liabilities	**R0740**	-
Provisions other than technical provisions	**R0750**	8,235
Pension benefit obligations	**R0760**	-
Deposits from reinsurers	**R0770**	881,860
Deferred tax liabilities	**R0780**	23,124
Derivatives	**R0790**	3,351
Debts owed to credit institutions	**R0800**	-
Financial liabilities other than debts owed to credit institutions	**R0810**	281,397
Insurance & intermediaries payables	**R0820**	54,137
Reinsurance payables	**R0830**	35,832
Payables (trade, not insurance)	**R0840**	3,967
Subordinated liabilities	**R0850**	106,865
Subordinated liabilities not in Basic Own Funds	**R0860**	-
Subordinated liabilities in Basic Own Funds	**R0870**	106,865
Any other liabilities, not elsewhere shown	**R0880**	2,115
Total liabilities	**R0900**	**6,794,409**
Excess of assets over liabilities	**R1000**	**685,334**

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**	358	40,510	29,217	865,885	655,682	178,470	948,334	224,663	146,629
Gross - Non-proportional reinsurance accepted	**R0130**									
Reinsurers' share	**R0140**	340	22,449	0	70	169,883	57,092	421,807	205,592	139,191
Net	**R0200**	18	18,061	29,217	865,815	485,799	121,378	526,527	19,072	7,438
Premiums earned										
Gross - Direct Business	**R0210**									
Gross - Proportional reinsurance accepted	**R0220**	−2,418	42,731	29,217	828,409	612,430	164,916	878,733	155,612	144,669
Gross - Non-proportional reinsurance accepted	**R0230**									
Reinsurers' share	**R0240**	−2,297	24,642	0	62	131,698	44,431	339,662	141,771	137,494
Net	**R0300**	−121	18,090	29,217	828,347	480,732	120,485	539,072	13,841	7,175
Claims incurred										
Gross - Direct Business	**R0310**									
Gross - Proportional reinsurance accepted	**R0320**	3,149	16,302	43,607	494,061	371,702	27,449	605,728	95,058	110,172
Gross - Non-proportional reinsurance accepted	**R0330**									
Reinsurers' share	**R0340**	2,992	12,377	4	12	80,797	37,274	250,581	93,743	104,181
Net	**R0400**	157	3,925	43,603	494,049	290,905	−9,825	355,147	1,315	5,991

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									
Gross - Non-proportional reinsurance accepted	R0430									
Reinsurers' share	R0440									
Net	R0500									
Expenses incurred	R0550	−44	12,888	11,927	363,061	196,116	56,188	269,741	6,714	1,155
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	-	-	186					3,089,934
Gross - Non-proportional reinsurance accepted	R0130				14,640	39,073	2,139	106,462	162,315
Reinsurers' share	R0140	-	-	153	-	-	73	4,859	1,021,509
Net	R0200	-	-	33	14,640	39,073	2,066	101,603	2,230,740
Premiums earned									
Gross - Direct Business	R0210								
Gross - Proportional reinsurance accepted	R0220	-	-	−523					2,853,776
Gross - Non-proportional reinsurance accepted	R0230				12,851	28,861	2,024	105,561	149,296
Reinsurers' share	R0240	-	-	−520	-	-	73	3,753	820,767
Net	R0300	-	-	−2	12,851	28,861	1,951	101,808	2,182,305

S.05.01.02: Cover, page 4

		Line of Business for: non-life insurance and reinsurance obligations (direct business and accepted proportional reinsurance)			Line of Business for: accepted non-proportional reinsurance				Total
		Legal expenses insurance	Assistance	Miscellaneous financial loss	Health	Casualty	Marine, aviation, transport	Property	
		C0100	C0110	C0120	C0130	C0140	C0150	C0160	C0200
Claims incurred									
Gross - Direct Business	R0310								
Gross - Proportional reinsurance accepted	R0320	-	-	844					1,768,072
Gross - Non-proportional reinsurance accepted	R0330				11,249	34,071	2,456	5,196	52,971
Reinsurers' share	R0340	-	-	777	-	-	19	94	582,850
Net	R0400	-	-	67	11,249	34,071	2,437	5,102	1,238,193
Changes in other technical provisions									
Gross - Direct Business	R0410			-					-
Gross - Proportional reinsurance accepted	R0420			-					-
Gross - Non-proportional reinsurance accepted	R0430				-	-	-	-	-
Reinsurers' share	R0440			-	-	-	-	-	-
Net	R0500			-	-	-	-	-	-
Expenses incurred	R0550	-	-	−2	1,655	4,434	162	947	924,943
Other expenses	R1200								
Total expenses	R1300								924,943

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							511,683	485,436	997,119
Reinsurers' share	R1420							-	103,725	103,725
Net	R1500							511,683	381,711	893,393
Premiums earned										
Gross	R1510							413,076	481,576	894,652
Reinsurers' share	R1520							-	103,725	103,725
Net	R1600							413,076	377,850	790,926
Claims incurred										
Gross	R1610							293,921	346,125	640,046
Reinsurers' share	R1620							-	6,141	6,141
Net	R1700							293,921	339,984	633,905
Changes in other technical provisions										
Gross	R1710									
Reinsurers' share	R1720									
Net	R1800									
Expenses incurred	R1900							124,730	73,900	198,630
Other expenses	R2500									
Total expenses	R2600									198,630

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		CHINA	GERMANY	UNITED KINGDOM	UNITED KINGDOM (GIBRALTA R)	UNITED STATES	
		C0080	C0090	C0100	C0110	C0120	C0130	C0140
Premiums written								
Gross - Direct Business	R0110							
Gross - Proportional reinsurance accepted	R0120		912,446	1,448,732	-	436,258	144,572	2,942,009
Gross - Non-proportional reinsurance accepted	R0130		-	1,147	-	22,196	117,380	140,723
Reinsurers' share	R0140		-	919,444	-	-	-	919,444
Net	R0200		912,446	530,435	-	458,454	261,952	2,163,288
Premiums earned								-
Gross - Direct Business	R0210							-
Gross - Proportional reinsurance accepted	R0220		705,976	1,448,472	-	415,628	148,274	2,718,351
Gross - Non-proportional reinsurance accepted	R0230		-	1,147	-	11,034	115,237	127,418
Reinsurers' share	R0240		-	720,015	-	-	1,017	721,033
Net	R0300		705,976	729,604	-	426,661	262,494	2,124,736
Claims incurred								-
Gross - Direct Business	R0310							-
Gross - Proportional reinsurance accepted	R0320		565,248	804,018	-	217,086	98,007	1,684,359
Gross - Non-proportional reinsurance accepted	R0330		-	1,684	-	11,185	26,754	39,623
Reinsurers' share	R0340		-	578,524	-	-	99	578,623
Net	R0400		565,248	227,178	-	228,271	124,662	1,145,359
Changes in other technical provisions								-
Gross - Direct Business	R0410							-
Gross - Proportional reinsurance accepted	R0420							-
Gross - Non-proportional reinsurance accepted	R0430							-
Reinsurers' share	R0440							-
Net	R0500							-
Expenses incurred	R0550		197,681	415,404	-	202,648	71,965	887,697
Other expenses	R1200							
Total expenses	R1300							887,697

S.05.02.01: Country, page 2

		Home country	Top 5 countries (by amount of gross premiums written) - life obligations					Total Top 5 and home country
		C0150	C0160	C0170	C0180	C0190	C0200	C0210
	R1400		UNITED KINGDOM	HONG KONG	UNITED STATES	CHINA		
		C0220	C0230	C0240	C0250	C0260	C0270	C0280
Premiums written								
Gross	R1410		179,157	172,657	114,847	493,172		959,834
Reinsurers' share	R1420		55	-	-	-		55
Net	R1500		179,102	172,657	114,847	493,172		959,779
Premiums earned			-	-	-	-		-
Gross	R1510		179,157	171,564	114,847	391,884		857,452
Reinsurers' share	R1520		55	-	-	-		55
Net	R1600		179,102	171,564	114,847	391,884		857,397
Claims incurred			-	-	-	-		-
Gross	R1610		111,584	143,862	101,934	270,545		627,925
Reinsurers' share	R1620		13	1,495	-	-		1,508
Net	R1700		111,571	142,367	101,934	270,545		626,417
Changes in other technical provisions								
Gross	R1710							
Reinsurers' share	R1720							
Net	R1800							
Expenses incurred	R1900		3,192	21,642	24,564	128,619		178,017
Other expenses	R2500							
Total expenses	R2600							178,017

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**		1,867,189	**2,027,541**
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	**R0080**		248,159	**248,159**
Best estimate minus recoverables from reinsurance/SPV and Finite Re - total	**R0090**		1,619,030	**1,779,383**
Risk Margin	**R0100**		43,195	**43,195**
Amount of the transitional on Technical Provisions				
Technical Provisions calculated as a whole	**R0110**			
Best estimate	**R0120**			
Risk margin	**R0130**			
Technical provisions - total	**R0200**		**1,910,384**	**2,070,737**

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**		117,308	117,308
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**		117,308	117,308
Risk Margin	**R0100**		21,540	21,540
Amount of the transitional on Technical Provisions				
Technical Provisions calculated as a whole	**R0110**			
Best estimate	**R0120**			
Risk margin	**R0130**			
Technical provisions - total	**R0200**		138,847	138,847

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 as a whole	**R0050**									
Technical provisions calculated as a sum of BE and RM										
Best estimate										
Premium provisions										
Gross	**R0060**	2,164	4,798	−664	236,421	55,333	26,301	120,286	68,738	76,778
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	**R0140**	2,007	4,978	0	9	61,101	25,954	151,230	67,517	78,520
Net Best Estimate of Premium Provisions	**R0150**	156	−180	−664	236,412	−5,768	347	−30,944	1,221	−1,742
Claims provisions										
Gross	**R0160**	3,530	23,176	16,786	699,264	298,511	57,967	490,915	195,094	156,959
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	**R0240**	3,275	9,538	0	42	99,998	58,167	274,658	111,031	159,972
Net Best Estimate of Claims Provisions	**R0250**	255	13,637	16,786	699,222	198,512	−200	216,256	84,063	−3,013
Total Best estimate - gross	**R0260**	5,694	27,973	16,122	935,685	353,843	84,268	611,201	263,832	233,737
Total Best estimate - net	**R0270**	411	13,457	16,122	935,634	192,744	147	185,313	85,284	−4,755
Risk margin	**R0280**	-	282	-	17,370	-	-	895	1,573	5

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
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	5,694	28,255	16,122	953,055	353,843	84,268	612,096	265,404	233,742
Recoverable from reinsurance contract/SPV and Finite Re after the adjustment for expected losses due to counterparty default - total	R0330	5,283	14,516	0	51	161,099	84,121	425,888	178,547	238,492
Technical provisions minus recoverables from reinsurance/SPV and Finite Re - total	R0340	411	13,739	16,122	953,004	192,744	147	186,208	86,857	−4,750

S.17.01.02: TP Non-Life, page 3

		Direct business and accepted proportional reinsurance			Accepted non-proportional reinsurance				
		Legal expenses insurance	Assis-tance	Miscella-neous financial loss	Non-propor-tional health reinsu-rance	Non-propor-tional casualty reinsu-rance	Non-pro-portional marine, aviation and trans-port reinsu-rance	Non-propor-tional property reinsu-rance	Total Non-Life obliga-tion
		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**	-	-	649	12,346	11,046	118	98,534	712,845
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	**R0140**	-	−5	601	-	-	0	239	392,152
Net Best Estimate of Premium Provisions	**R0150**	-	5	47	12,346	11,046	118	98,294	320,693
Claims provisions									
Gross	**R0160**	-	-	1,115	189,664	138,205	8,316	158,721	2,438,224
Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	**R0240**	-	−15	1,018	-	-	19	136	717,840
Net Best Estimate of Claims Provisions	**R0250**	-	15	97	189,664	138,205	8,297	158,585	1,720,384
Total Best Estimate - gross	**R0260**	-	-	1,764	202,010	149,251	8,435	257,255	3,151,069
Total Best Estimate - net	**R0270**	-	19	144	202,010	149,251	8,416	256,879	2,041,077
Risk margin	**R0280**	-	-	-	4,169	3,162	177	5,241	32,873

S.17.01.02: TP Non-Life, page 4

		Direct business and accepted proportional reinsurance			Accepted non-proportional reinsurance				
		Legal expenses insurance	Assis-tance	Miscella-neous financial loss	Non-propor-tional health reinsu-rance	Non-propor-tional casualty reinsu-rance	Non-pro-portional marine, aviation and trans-port reinsu-rance	Non-propor-tional property reinsu-rance	Total Non-Life obliga-tion
		C0110	C0120	C0130	C0140	C0150	C0160	C0170	C0180
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	-	-	1,764	206,179	152,413	8,612	262,495	3,183,942
Recoverable from reinsurance contract/SPV and Finite Re after the adjustment for expected losses due to counterparty default - total	R0330	-	−19	1,620	-	-	19	375	1,109,992
Technical provisions minus recoverables from reinsurance/SPV and Finite Re - total	R0340	-	19	144	206,179	152,413	8,593	262,120	2,073,950

S.19.01.21: Non-life insurance claims

Accident year / Underwriting year	**Z0020**	UWY

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**											2,109,522
N-9	**R0160**	18,038	111,291	108,770	25,788	15,781	32,744	7,931	4,034	3,276	2,079	
N-8	**R0170**	41,748	105,839	138,681	14,564	20,018	9,850	4,988	6,463	358		
N-7	**R0180**	197,919	99,474	124,204	26,940	11,649	12,128	2,907	9,438			
N-6	**R0190**	222,692	89,023	127,012	19,044	9,163	12,000	4,530				
N-5	**R0200**	182,292	33,629	110,711	12,778	−1,361	1,652					
N-4	**R0210**	546,714	464,215	46,769	17,660	11,835						
N-3	**R0220**	468,665	449,415	49,355	18,205							
N-2	**R0230**	321,973	617,009	60,875								
N-1	**R0240**	488,114	920,673									
N	**R0250**	379,462										

S.19.01.21: page 1		In current year	Sum of years (cumulative)
		C0170	**C0180**
Prior	**R0100**	4,494	2,109,522
N-9	**R0160**	2,079	329,732
N-8	**R0170**	358	342,508
N-7	**R0180**	9,438	484,660
N-6	**R0190**	4,530	483,464
N-5	**R0200**	1,652	339,700
N-4	**R0210**	11,835	1,087,193
N-3	**R0220**	18,205	985,640
N-2	**R0230**	60,875	962,067
N-1	**R0240**	920,673	1,446,577
N	**R0250**	379,462	379,462
Total	**R0260**	**1,413,601**	**8,950,526**

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											22,652
N-9	R0160	-	-	-	-	-	-	9,311	9,493	14,194	15,463	
N-8	R0170	-	-	-	-	-	19,618	18,874	32,290	28,958		
N-7	R0180	-	-	-	-	24,864	23,032	28,339	46,111			
N-6	R0190	-	-	-	70,781	53,568	16,120	51,128				
N-5	R0200	-	-	62,614	47,745	30,986	60,188					
N-4	R0210	-	112,369	50,905	73,930	98,669						
N-3	R0220	224,096	68,727	57,200	71,364							
N-2	R0230	216,759	121,659	134,181								
N-1	R0240	389,425	497,767									
N	R0250	1,428,289										

S.19.01.21: page 2		Year end (discounted data)
		C0360
Prior	R0100	22,618
N-9	R0160	15,376
N-8	R0170	28,796
N-7	R0180	45,492
N-6	R0190	50,662
N-5	R0200	59,948
N-4	R0210	97,529
N-3	R0220	71,050
N-2	R0230	133,063
N-1	R0240	194,375
N	R0250	1,419,315
Total	**R0260**	**2,438,224**

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	5,393,526	-	-	4,952	
Basic own funds	R0020	792,199	-	-	−4,269	
Eligible own funds to meet Solvency Capital Requirement	R0050	853,822	-	-	−4,282	
Solvency Capital Requirement	**R0090**	**430,072**	**-**	**-**	**5,485**	
Eligible own funds to meet Minimum Capital Requirement	R0100	721,152	-	-	−3,789	
Minimum Capital Requirement	**R0110**	**193,532**	**-**	**-**	**2,468**	

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**	29,865	29,865			
Share premium account related to ordinary share capital	**R0030**					
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**	297,343	297,343			
Subordinated liabilities	**R0140**	106,865			106,865	
An amount equal to the value of net deferred tax assets	**R0160**	2,888				2,888
Other own fund items approved by the supervisory authority as basic own funds not specified above	**R0180**	355,238	355,238			
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**	**792,198**	682,445		106,865	2,888

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**	64,511				64,511
Total ancillary own funds	**R0400**	**64,511**				64,511
Available and eligible own funds						
Total available own funds to meet the SCR	**R0500**	856,710	682,446	-	106,865	67,398
Total available own funds to meet the MCR	**R0510**	789,311	682,446	-	106,865	
Total eligible own funds to meet the SCR	**R0540**	853,822	682,446	-	106,865	64,511
Total eligible own funds to meet the MCR	**R0550**	721,152	682,446	-	38,706	
SCR	**R0580**	**430,072**				
MCR	**R0600**	**193,532**				
Ratio of Eligible own funds to SCR	**R0620**	**199%**				
Ratio of Eligible own funds to MCR	**R0640**	**373%**				

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

		C0060
Reconciliation reserve		
Excess of assets over liabilities	**R0700**	685,334
Own shares (held directly and indirectly)	**R0710**	
Foreseeable dividends, distributions and charges	**R0720**	
Other basic own fund items	**R0730**	387,991
Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds	**R0740**	
Reconciliation reserve	**R0760**	**297,343**
Expected profits		
Expected profits included in future premiums (EPIFP) - Life business	**R0770**	153,643
Expected profits included in future premiums (EPIFP) - Non-life business	**R0780**	
Total Expected profits included in future premiums (EPIFP)	**R0790**	**153,643**

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	162,585
102	Counterparty default risk according to IM	33,288
103	Life underwriting risk according to IM	249,361
104	Non-life underwriting risk according to IM	359,144
105	Operational risk according to IM	109,942
107	LAC TP according to IM	0
108	LAC DT according to IM	−60,253

Calculation of Solvency Capital Requirement		C0100
Total undiversified components	**R0110**	854,066
Diversification	**R0060**	−423,994
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**	**430,072**
Capital add-ons already set	**R0210**	-
Solvency capital requirement	**R0220**	**430,072**
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**	−60,253
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**	

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
MCRNL Result	**R0010**	444,860

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**	411	18
Income protection insurance and proportional reinsurance	**R0030**	13,457	18,061
Workers' compensation insurance and proportional reinsurance	**R0040**	16,122	29,217
Motor vehicle liability insurance and proportional reinsurance	**R0050**	935,634	865,815
Other motor insurance and proportional reinsurance	**R0060**	192,744	485,799
Marine, aviation and transport insurance and proportional reinsurance	**R0070**	147	121,378
Fire and other damage to property insurance and proportional reinsurance	**R0080**	185,313	526,527
General liability insurance and proportional reinsurance	**R0090**	85,284	19,072
Credit and suretyship insurance and proportional reinsurance	**R0100**	−4,755	7,438
Legal expenses insurance and proportional reinsurance	**R0110**	-	-
Assistance and proportional reinsurance	**R0120**	19	-
Miscellaneous financial loss insurance and proportional reinsurance	**R0130**	144	33
Non-proportional health reinsurance	**R0140**	202,010	14,640
Non-proportional casualty reinsurance	**R0150**	149,251	39,073
Non-proportional marine, aviation and transport reinsurance	**R0160**	8,416	2,066
Non-proportional property reinsurance	**R0170**	256,879	101,603

Linear formula component for life insurance and reinsurance obligations

		C0040
MCRL Result	R0200	735,894

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		
Other life (re)insurance and health (re)insurance obligations	R0240	1,896,691	
Total capital at risk for all life (re)insurance obligations	R0250		994,376,874

Overall MCR calculation

		C0070
Linear MCR	R0300	1,180,754
SCR	R0310	430,072
MCR cap	R0320	193,532
MCR floor	R0330	107,518
Combined MCR	R0340	193,532
Absolute floor of the MCR	R0350	3,927
Minimum Capital Requirement	R0400	193,532

Published by
Hannover Re (Ireland) Designated Activity Company
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Harbourmaster Place
IFSC
Dublin 1
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www.hannover-re.com