Group Annual Report 2020
Munich Re

2020

WE DRIVE BUSINESS AS ONE

Munich RE

Key figures (IFRS)[1,2]

Munich Re at a glance

		2020	2019	2018	2017	2016
Gross premiums written	€m	54,890	51,457	49,064	49,115	48,851
Net earned premiums	€m	51,223	48,280	45,735	47,164	47,118
Net expenses for claims and benefits	€m	–43,077	–39,685	–35,116	–41,645	–38,498
Net operating expenses	€m	–12,815	–13,056	–12,587	–12,186	–12,295
Operating result	€m	1,986	3,430	3,725	1,241	4,025
Taxes on income	€m	–269	–483	–576	298	–760
Consolidated result	€m	1,211	2,707	2,275	392	2,581
Attributable to non-controlling interests	€m	0	–17	–34	17	1
Earnings per share	€	8.63	18.97	15.53	2.44	16.13
Return on equity (RoE)[3]	%	5.3	11.7	8.4	1.3	8.1
Return on investments (RoI)	%	3.0	3.2	2.8	3.2	3.2
Dividend per share[4]	€	9.80	9.80	9.25	8.60	8.60
Dividend payout[4]	€m	1,373	1,373	1,335	1,286	1,333
Share price at 31 December	€	242.80	263.00	190.55	180.75	179.65
Munich Reinsurance Company's market capitalisation at 31 December	€bn	34.0	38.0	28.5	28.0	28.9
Carrying amount per share	€	213.38	215.32	180.86	185.19	200.86
Investments	€m	232,950	228,764	216,852	217,562	221,752
Insurance-related investments	€m	11,033	9,163	8,424	9,664	9,558
Equity	€m	29,994	30,576	26,500	28,198	31,785
Off-balance-sheet unrealised gains and losses[5]	€m	21,298	19,913	16,067	14,980	17,276
Net technical provisions	€m	221,480	217,941	208,270	205,754	202,240
Balance sheet total	€m	297,946	287,553	270,168	265,722	267,805
Staff at 31 December		39,642	39,662	41,410	42,410	43,428

Reinsurance

		2020	2019	2018	2017	2016
Gross premiums written	€m	37,321	33,807	31,286	31,569	31,463
Investments (incl. insurance-related investments)	€m	94,631	92,429	85,605	85,804	91,928
Net technical provisions	€m	78,190	77,166	72,407	68,109	67,067
Major losses (net)	€m	–4,689	–3,124	–2,152	–4,314	–1,542
Natural catastrophe losses	€m	–906	–2,053	–1,256	–3,678	–929
Combined ratio property-casualty	%	105.6	100.2	99.4	114.1	95.7
Investment result	€m	3,193	3,318	2,543	2,760	2,275
Consolidated result	€m	694	2,268	1,864	120	2,540
Thereof: Reinsurance – Life and Health	€m	123	706	729	596	515
Thereof: Reinsurance – Property-casualty	€m	571	1,562	1,135	–476	2,025
Return on equity (RoE)	%	4.1	13.3			

ERGO

		2020	2019	2018	2017	2016
Gross premiums written	€m	17,569	17,650	17,778	17,546	17,388
Investments (incl. insurance-related investments)	€m	149,352	145,497	139,671	141,422	139,383
Net technical provisions	€m	143,290	140,776	135,863	137,645	135,173
Combined ratio property-casualty Germany	%	92.4	92.3	96.0	97.5	97.0
Combined ratio International	%	92.7	94.3	94.6	95.3	98.0
Investment result	€m	4,206	4,504	3,983	4,851	5,291
Consolidated result	€m	517	440	412	273	41
Thereof: Life and Health Germany	€m	130	187	264	175	114
Thereof: Property-casualty Germany	€m	157	148	45	57	–72
Thereof: International	€m	230	105	103	40	–1
Return on equity (RoE)	%	8.8	7.4			

1 You will find this information as a downloadable Excel file in the financial supplement under www.munichre.com/results-reports.
2 Previous year's figures adjusted owing to IAS 1. For details, please see the section "Recognition and measurement – Changes in accounting policies and other adjustments" in the Notes to the consolidated financial statements.
3 We have changed the calculation of RoE and adjusted the previous year's figure accordingly. Further information on this indicator can be found in the combined management report under Tools of corporate management and strategic financial objectives, and in the Notes to the consolidated financial statements, in the section entitled Segment reporting, Notes on determining the return on equity (RoE). Comparability with the years up to and including 2018 is limited.
4 Subject to approval by the Annual General Meeting.
5 Including those apportionable to minority interests and policyholders.
6 With the publication of our Ambition 2025 in December 2020, RoE has now become a target figure for our fields of business. Further information can be found in the combined management report under Tools of corporate management and strategic financial objectives, and in the Notes to the consolidated financial statements, in the section entitled Segment reporting, Notes on determining the return on equity (RoE). We do not report this indicator for the years up to and including 2018.

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Due to rounding, there may be minor deviations in summations and in the calculation of percentages in this report.

This document is a translation of the original German version and is intended to be used for informational purposes only. While every effort has been made to ensure the accuracy and completeness of the translation, please note that the German original is binding.

Dr. Joachim Wenning
Chairman of Munich Reinsurance Company's Board of Management

Dear shareholders,

It is rare that a single topic defines an entire year like the spread of the coronavirus defined 2020. As elsewhere, the pandemic left its mark on our results. All the same, Munich Re concluded the year by generating a profit of €1.2bn. If it hadn't been for the COVID-19 losses, we certainly would have attained our profit guidance of €2.8bn for 2020. In this light, we regard our multi-year ambition for 2018–2020 as accomplished.

As Munich Re shareholders, you have been able to count on our robust financial substance and a high dividend, even in turbulent times. COVID-19 has not changed that. Between 2018 and 2020, our total shareholder return advanced to number one among the eight leading reinsurers worldwide and primary insurers in Europe. We want you, our shareholders, to benefit once again from our ongoing success through a stable dividend – and so we are proposing that the Annual General Meeting approve a dividend of €9.80 per share, the same as last year.

Our business model has proved that it will outlast this crisis, as it has others. The insured losses arising from COVID-19 in life business and in property-casualty were financially manageable for Munich Re. By covering insured losses totalling billions, we are playing a substantial role in helping the economy and society cope with the pandemic.

We neither applied for government aid nor used the instrument of reduced working hours. And we will not reduce our dividend. Munich Re continued doing business despite the pandemic; our operations were in no way limited. We managed to transition very quickly to working almost exclusively from home, without hampering our productivity. Our staff were able to count on their employer. Against the backdrop of the coronavirus pandemic, we made our rules on working hours as flexible as we could, in turn enabling our staff to better balance family and work responsibilities.

At the same time, COVID-19 laid bare the failure of countries and societies around the world to make sufficient, comprehensive preparations. The global community should learn from these shortcomings now so as to increase resilience prior to the next pandemic. It is impossible to insure the economic costs of a pandemic. Neither insureds nor insurers can privately shoulder such enormous burdens. In such situations, governments naturally must assume responsibility. Smart strategies are needed to sustain the world's economies, in which insurers can and want to add value. Munich Re therefore endorses the establishment of state-backed pandemic risk pools.

Despite the justified focus on the pandemic, we must not forget that other major risks of a systemic nature also pose enormous challenges to our industry. Cyber risks and especially climate change both pose major risks. In 2020, natural catastrophes caused US$ 210bn in worldwide losses, which was once again considerably worse than the long-term average. It is not possible to definitively attribute the developments in any one year or an individual event to climate change. All the same, two things are clear: Climate change is real. And natural catastrophe losses are on the rise.

The time to act is now. Experts in politics, business and science – as well as society as a whole – must become more determined and assertive in combating climate change. In this context, market leaders and players that influence public opinion need to lead the way by setting good examples. To this end, Munich Re launched very ambitious and specific climate protection targets at the end of last year for its investments, its insurance business and its own operations for the period between 2021 and 2050.

These targets are science-based, concrete, binding, quantifiable, and compatible with the Paris Agreement on climate change. Based on our pledge to achieve net-zero CO_2 emissions in all categories no later than 2050, we have defined straightforward interim targets. In five-year time frames, we will gradually and verifiably reduce our emissions. We will conduct our first interim assessment in 2025.

This also means that we will withdraw from insurance business and insurance income associated with fossil fuels. Conversely, we anticipate new business from covering risks in the renewable energy sector. Our innovative insurance solutions facilitate the market entry and affordability of key new technologies. In recent years, we have become a market leader in performance-guarantee insurance for wind turbines, photovoltaic facilities and energy storage systems.

Especially in (re)insurance business, which is characterised by long time horizons, yesterday's strategic decisions blaze trails to tomorrow's success. As 2020 ended, we simultaneously concluded three projects: the three-year

Munich Re Group Ambition, the three-year reinsurance strategy and the five-year ERGO Strategy Programme. The overarching objective of our strategic orientation was to make Munich Re more profitable, more digital and leaner. We have succeeded. When adjusted for special effects and major losses, our operating earnings have risen considerably over the past three years. The intelligent use of data and technology has accelerated the automation, advancement and disruption of products and services throughout the Group. In addition, our strict focus on markets and clients has appreciably improved our organisation's efficiency and propelled our business forward.

Having concluded the above-mentioned strategy programmes in 2020, we now turn our attention to the next five years. To this end, we launched our Munich Re Group Ambition 2025 in December 2020. Under the triad of Scale – Shape – Succeed, our Ambition 2025 strategy synchronises the planning processes for reinsurance, ERGO and asset management. It also outlines the path to a successful future and to the top of the competition for our entire Group.

To help make that happen, we will reinforce the growth factors of our proven strategies in reinsurance and at ERGO, while also boosting the earnings power of our investments. ERGO will further increase profitability in Germany and in its international business by focusing on the expansion of cutting-edge IT architecture for sales; accelerating international growth, particularly in India and China; and systematically catering to the hybrid customer. In property-casualty reinsurance, the current market hardening points to rising prices in the years to come, in turn creating favourable conditions for organic growth. We want to profit here by purposefully leveraging our underwriting excellence. We perceive sustained opportunities for good growth in life and health reinsurance – especially in North America and Asia, and particularly as regards digital services and transactions that provide financing or capital relief for our clients' lines of business. Following significant recent investments designed to transform Risk Solutions, we expect disproportionately high growth in this operating field. As for investments, we are seeking to improve our return on investment in the long term by specialising – without increasing our appetite for market risk.

This will make investing in our Group even more appealing for you, our shareholders, in coming years. As part of our Ambition 2025, we have defined an industry-leading target return of 12–14% on invested capital in 2025. Continued earnings growth will translate into higher earnings per share, which are set to increase annually by at least 5% on average by 2025. Similarly to the increase in earnings per share, the dividend per share is to likewise rise by at least 5% on average – at a somewhat higher rate than in recent years. As in the past, it is expected that the dividend per share will at least remain the same following years with unusually high claims burden.

Success in business is of paramount importance for Munich Re; it lays the foundation for our role in helping society. But, as a conscientious business, we can never allow ourselves to measure success only in terms of economic indicators. That is why a certain pillar of our Ambition 2025 is especially important to me: our belief in and our commitment to diversity and inclusion.

Munich Re unites colleagues from over 60 countries under one roof, at more than 50 locations around the world. Over 80 professions are represented in our Group. Diversity is a defining characteristic of Munich Re. But we have room for improvement, including the number of women managers – a matter we will resolutely tackle. We want to increase the percentage of women in senior management at Munich Re to 40% by 2025.

Despite considerable uncertainty caused by COVID-19, in 2020 we laid the tracks to the future of the Munich Re Group. I am confident that we have thus established a solid basis for growth and value creation for all our stakeholders. On behalf of our approximately 40,000 staff members worldwide, I wish to thank you for the trust you place in us and our Group. I invite you to accompany us on the journey ahead.

Yours sincerely,

Joachim Wenning

Corporate governance

Dr. Nikolaus von Bomhard
Chairman of the Supervisory Board

Ladies and Gentlemen,

In the 2020 financial year, the Supervisory Board fulfilled all the tasks and duties incumbent upon it by law and under the Articles of Association and the rules of procedure. The overall attendance of members at meetings of the Supervisory Board and its committees was 99.2% (an overview of attendance can be found at the end of the Report of the Supervisory Board and at www.munichre.com/supervisory-board). In light of the coronavirus pandemic, increased use was made of the option to take part in meetings electronically from March 2020 onwards.

We monitored the Board of Management in its conduct of the business, and gave advice on all matters of importance for the Group. No inspection measures in accordance with Section 111(2) sentence 1 of the German Stock Corporation Act (AktG) were required at any time.

Collaboration between Supervisory Board and Board of Management

The Board of Management punctually and directly involved the Supervisory Board in all important business transactions and decisions of fundamental significance for the Group. In our meetings, we discussed the reports from the Board of Management in detail. Cooperation with the Board of Management was characterised in every regard by targeted and responsible action aimed at promoting the successful development of Munich Re. The Board of Management satisfied its reporting obligations towards the Supervisory Board in all respects, both verbally and in writing.

Outside of Supervisory Board meetings, the Board of Management informed us promptly and extensively about important events in the Group, such as the planned dividend payment for the 2019 financial year and the prospects regarding the overall result for the year 2020 and the profit guidance for 2021. The shareholder representatives and the employee representatives met regularly with the Chairman of the Board of Management for separate discussions in preparation for the meetings.

Between meetings, I held regular discussions with the Chairman of the Board of Management, Joachim Wenning. We discussed questions of strategic orientation, risk management, compliance, the current business situation and the impact of the coronavirus pandemic on Munich Re. Also between meetings, the Chair of the Audit Committee Maximilian Zimmerer remained in close contact with Chief Financial Officer Christoph Jurecka.

Focal points of the meetings of the full Supervisory Board

There were eight meetings of the Supervisory Board in 2020. We regularly held in-depth discussions with the Board of Management about business performance and current topics, with a special focus on strategic considerations of the Board of Management with respect to the individual fields of business and the development of the pandemic and its impact. The Board of Management reported to us regularly on Munich Re's investments, addressing developments in the global economy and financial markets in detail, as well as their impact on the Group's assets, financial position and results. In addition, we advised the Board of Management on matters of strategic importance for the future of the Group, including its digitalisation, growth, investment and sustainability strategies. Besides the above-mentioned issues, we dealt with the following topics at the individual meetings in 2020:

The meeting on 26 February, which took the form of a telephone conference, focused on the preliminary figures for the 2019 Company and Group financial statements and the Board of Management's dividend proposal.

The meeting on 17 March focused among other things on the Company and Group financial statements for 2019, the combined management report, the separate non-financial (Group) statement for 2019 and the Supervisory Board's motions for resolution by the 2020 Annual General Meeting. Furthermore, we conferred and took decisions regarding the evaluation of the 2019 annual bonuses and the consequent bonus payments to the individual members of the Board of Management. We also adopted an update to the list of business transactions requiring approval of the Supervisory Board found in the rules of procedure of the Board of Management. In addition, we received information about the impact of the coronavirus pandemic on Munich Re and the measures taken around the world to protect staff and maintain business operations.

The meeting on 28 April dealt with matters involving the Board of Management, specifically the evaluation of the bonus payments to the individual members of the Board of Management and their multi-year performance for 2017–2019. We also undertook a self-assessment of the members of the Supervisory Board concerning their knowledge of specific fields that are important for providing advice and supervision to the Munich Re Board of Management. The good level of collective expertise on the Supervisory Board was maintained. The Supervisory Board thus possesses the appropriate diversity of qualifications, knowledge and experience to provide advice and supervision to proficiently monitor and accompany the business performance of Munich Re, taking account of the characteristics specific to the Company and the Group. We also received the Board of Management's report on the status of business performance in 2020. We used the meeting to make last-minute preparations for the Annual General Meeting, which took place the next day and – as a result of the coronavirus pandemic – took the form of an online event for the first time.

A workshop was held on 13 July in which we discussed in depth the strategic development of Munich Re and the individual fields of business.

On 14 July, we adopted a resolution on the restructuring of the Munich Re pension plan for the members of the Board of Management and a corresponding adjustment of Board of Management contracts. We also discussed the need for any action regarding the remuneration system for the Board of Management in light of the German Act implementing the Second Shareholders' Rights Directive (ARUG II) and the fundamental revision of the German Corporate Governance Code. Furthermore, we considered the Group-wide remuneration report for the 2019 financial year in line with Solvency II and the Remuneration Regulation for Insurance Companies (VersVergV). The Board of Management provided us with up-to-date information concerning not only the impact of the coronavirus pandemic on the claims burden of Munich Re, but also digital transformation within the Group.

On 15 October we approved the appointment of Stefan Golling to the Board of Management. We also adapted the rules on fringe benefits, remuneration in kind and other regulations concerning members of the Board of Management and discussed proposals to modify the remuneration system for the members of the Board of Management as of 1 January 2021, taking into account ARUG II, the German Corporate Governance Code and the requirements of our investors and other stakeholders. Topics related to corporate governance were regularly on the agenda: the resolution regarding the Declaration of Conformity with the German Corporate Governance Code and the discussion of the self-assessment findings of the Supervisory Board and its committees in 2020. In addition, we adopted resolutions concerning changes to the allocation of responsibilities within the Supervisory Board. In light of the integration of the non-financial statement into the combined management report, for example, the responsibility for preparing the audit of the combined non-financial statement was reallocated from the Standing Committee to the Audit Committee. Furthermore, the objectives concerning the composition of the Supervisory Board and the competence profile for the Supervisory Board as a whole were updated. The set of criteria for the selection of shareholder representatives was updated. Further topics included the implementation of the Munich Re investment strategy, and the setting of a target in accordance with which 25% of members of the Board of Management should be women by the end of 2025 in implementation of the Act on Equal Participation of Women and Men in Leadership Positions in the Private and Public Sectors.

On 8 December, the Board of Management informed us about the Munich Re "Strategy and Ambition 2025". As well as evaluating the Ambition 2025, presented by the Group Chief Risk Officer, we discussed the Group's risk strategy and approved the financial planning for 2021.

On 10 December, we adopted a resolution concerning the remuneration system for the Board of Management as of 1 January 2021 – to be put to the Annual General Meeting for approval on 28 April 2021 – and a resolution concerning adjustments to the contracts for Board members. Furthermore, we reviewed the compensation of the Board of Management and, following a comprehensive discussion, we established the amount of remuneration for the Board of Management with effect from 2021. We also adopted the assessment bases for variable remuneration in 2021. The shareholder representatives adopted a resolution concerning a change on the Supervisory Board. During this meeting, the Group Chief Risk Officer informed us about the risk situation of the Group. Furthermore, the Board of Management reported on current topics, presented us with the Group human resources report, and explained the focal points of human resources work within the Group. It also informed us about the Munich Re sustainability strategy.

By way of a resolution adopted by written consent, we approved the proposals of the Board of Management regarding the online execution of the 2020 Annual General Meeting in April.

Also by way of a resolution adopted by written consent, at the beginning of May we elected Maximilian Zimmerer to succeed Kurt Wilhelm Bock on the Nomination Committee, the Standing Committee and the Conference Committee.

Work of the committees

There are six Supervisory Board committees. These are assigned certain matters for resolution, and also prepare the topics which are to be addressed and decided upon by the full Supervisory Board. At each Supervisory Board meeting, detailed information about the work of the committees was provided to the full Supervisory Board by the respective chairs of the committees.

Details of the tasks of the committees and their composition are included in the Statement on Corporate Governance and on our website at www.munichre.com/supervisory-board.

The Personnel Committee held six meetings in the reporting period. The Committee essentially prepared the resolutions on matters involving the Board of Management already mentioned in the report on the work of the full Supervisory Board, unless these fell under the remit of the Remuneration Committee. One focus of the Personnel Committee's work was the assessment of the fitness and propriety of new members of the Board of Management. In addition, the Personnel Committee approved the assumption of mandates on supervisory, advisory and similar boards by members of the Board of Management. Taking into account diversity aspects, it also dealt with the Group-wide succession planning – in particular as regards Board members.

The Remuneration Committee also met six times in 2020. In particular, it is responsible for preparing resolutions on matters involving the Board of Management – as already mentioned above when reporting on the work of the full Supervisory Board – as far as these resolutions concerned the remuneration system for the Board of Management, the amount of remuneration, the establishment of the assessment basis for variable remuneration and the corresponding evaluation, fringe benefits and benefits in kind, as well as the sections of the Board members' contracts relating to remuneration. A significant focus of the Committee's work in the reporting year related to the intensive discussion of the requirements and resultant need for action pursuant to ARUG II and the German Corporate Governance Code as well as the expectations of investors and other stakeholders as regards Board of Management remuneration.

At its six meetings, the Standing Committee dealt with the preparation of the respective Supervisory Board meetings and, in particular, with topics of corporate governance. It prepared the assessment of the effectiveness of the Supervisory Board as a whole and its individual committees on the basis of a comprehensive self-assessment form. Furthermore, it approved proposals by the Board of Management concerning the share buy-back programme and the procedure regarding answering questions at the virtual Annual General Meeting. In deliberations spanning a number of meetings, the Standing Committee also discussed the internal procedure set up to assess whether related-party transactions are entered into in the ordinary course of business and concluded on normal market terms. The Chairman of the Board of Management gave the Standing Committee regular updates on the shareholder structure.

The Audit Committee also held six meetings in the reporting period. All of these meetings were attended by the external auditors. In its meetings in February and March 2020, the Audit Committee discussed the Munich Reinsurance Company and Group financial statements, the combined management report, the auditor's reports and the Board of Management's proposal for the appropriation of the net retained profits for the 2019 financial year. The Committee also discussed in detail the quarterly statements for Q1 and Q3 2020 and, together with the auditors, examined in detail the 2020 Half-Year Financial Report. The Committee heard regular reports on the key Solvency II figures and discussed the quarterly reporting to the supervisory authority in these meetings. Another key task of the Committee consisted in monitoring the Group's risk situation and risk management on an ongoing basis, and discussing its risk strategy: the Group Chief Risk Officer provided detailed verbal input at several meetings of the Committee in addition to the quarterly written reports submitted. In one meeting, the Head of the Actuarial Function gave a report on significant developments at Munich Re. The internal control system and compliance topics were discussed regularly. The Group Chief Auditor informed the members of the Committee in full about the outcome of the audits for 2019 and the audit planning for 2020. The Committee received updates on the current status of individual compliance issues and the progress of audits. Without the Board of Management being present, the members of the Committee took the opportunity to confer amongst themselves or with the Group Chief Auditor, the Group Chief Compliance Officer, the Group Chief Risk Officer and the external auditors on a regular basis. In addition, the Audit Committee and the external auditors exchanged views on selected topics on an ad-hoc basis between meetings. Furthermore, the Audit Committee closely reviewed and monitored the auditor's independence. It regularly called for reports on the auditor's additional activities beyond the auditing of the annual financial statements and on the utilisation of the statutory limit for awarding such contracts. The auditors presented the Audit Committee with explanations of the key audit matters for the 2020 financial year. The quality of the audit was regularly assessed by the Audit Committee. The Audit Committee also prepared a report for the full Supervisory Board on the appointment of the external auditors for the 2020 financial year, determined the main points of the audits, and set the auditor's fees. Following a resolution by the full Supervisory Board, the Chair of the Audit Committee commissioned Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft (EY), Munich, with the audit for the 2020 financial year, and also commissioned the auditor's review of the 2020 Half-Year Financial Report.

The Nomination Committee held two meetings in the reporting period. It discussed the medium-term succession planning of the Supervisory Board and deliberated on suitable candidates for nomination to the Supervisory Board. When making proposals for nomination, the Committee took into account the objectives approved by the Supervisory Board regarding its composition, the competence profile for the Supervisory Board as a whole, and the set of criteria for the selection of shareholder representatives.

There was again no need to convene the Conference Committee in the 2020 financial year.

Corporate governance and Declaration of Conformity

The Supervisory Board pays close attention to good corporate governance. Together with the Board of Management, we therefore published the Declaration of Conformity pursuant to Section 161 of the German Stock Corporation Act (AktG) in November 2020. Since issuing its last Declaration of Conformity in November 2019, Munich Re has complied with all of the recommendations of the German Corporate Governance Code as amended on 7 February 2017 (published on 24 April 2017). Munich Re also fulfils all the recommendations of the German Corporate Governance Code of 16 December 2019 (published on 20 March 2020) and will continue to do so in future. In accordance with their own assessment, all ten shareholder representatives may be considered independent within the meaning of the German Corporate Governance Code.

In order to avoid even the semblance of work or decision-making processes being influenced by personal interests, each member of the Supervisory Board promptly discloses any conflicts of interest. Where a current Supervisory Board member was on the Board of Management during a period which is currently being dealt with by the Supervisory Board, the member in question does not participate in any of the discussions of the matter or in any related resolutions. This was the approach I took for two agenda items in the 2020 financial year.

The Supervisory Board also met without the Board of Management.

Members of the Supervisory Board were again invited to participate in an internal information event in 2020 as part of their specific further training. Almost all members used the opportunity to learn more about innovation, the IFRS 9 and IFRS 17 accounting standards, and the Munich Re equity story from the perspective of an investor. The Company also provided the members of the Supervisory Board with electronic training material for self-study. Before they took up their appointments, new members of the Supervisory Board also received specially compiled informational material to prepare for their new role.

Further to the annual information event, members of the Supervisory Board were invited to participate in additional information sessions concerning action required regarding the remuneration system for the members of the Board of Management owing to the introduction of ARUG II and the revised German Corporate Governance Code. These events also met with great interest.

In my role as Chairman of the Supervisory Board, I held discussions on topics relevant to the Supervisory Board with investors and proxy advisors as part of an ongoing dialogue with investors. The focus of the discussions was the remuneration system for the Board of Management that will be put to the Annual General Meeting for approval on 28 April 2021.

Changes on the Board of Management

For personal reasons, Hermann Pohlchristoph did not extend his appointment that expired on 30 April 2020, and has left the Company. Achim Kassow was appointed his successor with effect from 1 May 2020, and he took over responsibility for the Asia Pacific and Africa division and for the Central Procurement and Services central divisions.

Board member Peter Röder retired on 31 December 2020. Stefan Golling was appointed his successor with effect from 1 January 2021. In addition to the Global Clients and North America division, he is also responsible for the US subsidiaries HSB and AMIG, and the Lloyd's and Bermuda markets.

Changes on the Supervisory Board

Kurt Wilhelm Bock resigned from the Supervisory Board with effect from the end of the 2020 Annual General Meeting. On 29 April 2020, the Annual General Meeting elected Carsten Spohr for the remainder of Kurt Wilhelm Bock's term of office.

Further general information on corporate governance can be found in the Statement of Corporate Governance.

Company and Group financial statements for 2020, Solvency II reporting and non-financial information

The auditors EY duly audited the annual financial statements of Munich Reinsurance Company, the Group financial statements and the combined management report as at 31 December 2020, and issued them with an unqualified auditor's opinion. The German Public Auditor responsible for the engagement is Thomas Kagermeier. It is the first time that he has been responsible for the audit of the Company and Group financial statements.

The above-mentioned reports and the Board of Management's proposal for appropriation of the net retained profits were submitted to the members of the Supervisory Board. On 23 February 2021, the Audit Committee intensively discussed the preliminary year-end figures as at 31 December 2020, along with the Board of Management's proposal for appropriation of the net retained profits. At its meeting on 24 February 2021, the Supervisory Board also intensively discussed the preliminary year-end figures as at 31 December 2020, along with the Board of

Management's proposal for appropriation of the net retained profits. On 15 March 2021, the Audit Committee prepared the Supervisory Board's resolution on the adoption of the Company financial statements and the approval of the Group financial statements. To this end, the Audit Committee examined the annual and consolidated financial statements and the combined management report (including the combined non-financial statement) in advance. It discussed these at length with the external auditors present at the meeting, and gave detailed consideration to the auditor's reports. The Audit Committee paid particular attention to the key audit matters described in the auditor's opinion, including audit activity. The Chair of the Audit Committee briefed the full Supervisory Board about the outcome of its consultations at the balance sheet meeting. In its March meeting, the Audit Committee discussed the preliminary key figures under Solvency II reporting – and the Solvency II ratio in particular – and reported on this to the full Supervisory Board.

The full Supervisory Board also checked the financial statements of Munich Reinsurance Company and the Group, and the combined management report (including the combined non-financial statement). The auditor's reports were available to all members of the Supervisory Board and were discussed in detail at the balance sheet meeting of the Supervisory Board on 16 March 2021 in the presence of the external auditors. The audit findings of the combined non-financial statement were also considered by the Supervisory Board. The auditors reported on the scope, the main points, and the key results of the audit, going into particular detail on the key audit matters (please refer to the independent auditor's report for information) and the audit activity conducted. There were no reports of material weaknesses in the internal control system or the risk management system.

On the basis of this comprehensive examination, the Supervisory Board raised no objections concerning the outcome of the external audit. It approved the Company and Group financial statements on 16 March 2021. The financial statements were thus adopted. Having carefully weighed all relevant aspects, the Supervisory Board followed the proposal of the Board of Management for appropriation of the net retained profits.

Words of thanks to the Board of Management and employees
The Supervisory Board wishes to thank all members of the Board of Management and staff worldwide. With their work and commitment, they have contributed to a gratifying result for Munich Re – despite the challenges presented by the coronavirus pandemic.

Munich, 16 March 2021

For the Supervisory Board

Nikolaus von Bomhard
Chairman

Attendance of Supervisory Board Members at meetings of the Supervisory Board of Munich Reinsurance Company and its committees in 2020

Member of the Supervisory Board	Supervisory Board	Participation quota Supervisory Board	Personnel Committee	Remuneration Committee	Standing Committee	Audit Committee	Nomination Committee
Nikolaus von Bomhard	8/8	100%	6/6		6/6	6/6	2/2
Anne Horstmann	8/8	100%			6/6		
Ann-Kristin Achleitner	8/8	100%		6/6		6/6	2/2
Kurt Wilhelm Bock[1]	3/3	100%			3/3		1/1
Clement Booth	8/8	100%					
Ruth Brown	8/8	100%					
Stephan Eberl	8/8	100%	6/6	6/6	6/6		
Frank Fassin	8/8	100%					
Benita Ferrero-Waldner	7/8	88%					
Ursula Gather	8/8	100%					
Gerd Häusler	8/8	100%			6/6		
Eva-Maria Haiduk	8/8	100%					
Renata Jungo Brüngger	7/8	88%	6/6	6/6			
Stefan Kaindl	8/8	100%				6/6	
Gabriele Mücke	8/8	100%					
Ulrich Plottke	8/8	100%				6/6	
Manfred Rassy	8/8	100%					
Gabriele Sinz-Toporzysek	8/8	100%					
Carsten Spohr[2]	5/5	100%					
Karl-Heinz Streibich	8/8	100%					
Maximilian Zimmerer	8/8	100%			3/3	6/6	1/1
Participation quota (average)		**99%**	**100%**	**100%**	**100%**	**100%**	**100%**

1 Member of the Supervisory Board until 29 April 2020.
2 Member of the Supervisory Board from 29 April 2020.

Statement on Corporate Governance pursuant to Section 289f and Section 315d of the German Commercial Code (HGB)[1]

Pursuant to Section 289f and Section 315d of the German Commercial Code (HGB), Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München (Munich Reinsurance Company Joint-Stock Company in Munich) has issued the following Statement on Corporate Governance and Group Statement on Corporate Governance. This Statement also contains the disclosures and explanatory notes as recommended in the German Corporate Governance Code in the version dated 16 December 2019 (published on 20 March 2020). The remuneration report can be found in the Group section of the combined management report. More information on corporate governance can be found at www.munichre.com/cg-en.

We apply the highest standards to our operations and activities and therefore comply with all the recommendations and proposals of the German Corporate Governance Code. There are no overriding statutory provisions that render the recommendations and suggestions of the German Corporate Governance Code not applicable to Munich Reinsurance Company Joint-Stock Company in Munich.

Declaration of Conformity by the Board of Management and Supervisory Board of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München with the German Corporate Governance Code in accordance with Section 161 of the German Stock Corporation Act (AktG)

Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München fulfils all the recommendations of the German Corporate Governance Code of 16 December 2019 (published on 20 March 2020) and will continue to do so in future.

Since issuing its last Declaration of Conformity in November 2019, Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München has complied with all of the recommendations of the German Corporate Governance Code as amended on 7 February 2017 (published on 24 April 2017).

Munich, November 2020

The Board of Management   The Supervisory Board

1 The Statement on Corporate Governance is part of the combined management report and was not audited.

Corporate legal structure

Munich Reinsurance Company has three governing bodies: the Annual General Meeting, the Board of Management, and the Supervisory Board. Their functions and powers are defined by law, the Articles of Association, the Co-Determination Agreement applicable to Munich Reinsurance Company, and by rules of procedure and internal guidelines. Employee co-determination on the Supervisory Board is governed by the Co-Determination Agreement concluded pursuant to the German Act on the Co-Determination of Employees in Cross-Border Mergers (MgVG). The principle of parity co-determination on the Supervisory Board has been strengthened by taking into account staff employed in the European Union and in the European Economic Area (EU/EEA).

Additional corporate governance requirements are set out in the regulatory requirements for (re)insurance companies, especially the German Insurance Supervision Act (VAG) and the European supervisory regulations (Solvency II). They include specific rules on various issues such as business organisation or the qualifications and remuneration of members of the Board of Management, Supervisory Board members and other individuals.

Annual General Meeting

The principle of "one share, one vote" applies at the Annual General Meeting of Munich Reinsurance Company. Shareholders can opt for postal or electronic voting. Until the vote count begins, shareholders can change their votes online.

Shareholders may also have their voting rights exercised at the Annual General Meeting by one of the proxies nominated by Munich Reinsurance Company. These proxies will exercise the voting rights solely in accordance with the instructions they receive from the shareholders. Power of attorney and instructions may also be issued online to the Company proxies, and also changed online until the vote count begins.

The documents required by law for the Annual General Meeting and the agenda will be available on the Munich Re website with effect from the day the AGM is called.

The Annual General Meeting on 29 April 2020 was conducted as a virtual Annual General Meeting – with neither shareholders nor their authorised representatives physically present – on account of the special circumstances caused by the COVID-19 pandemic and in accordance with Section 1(2) of the German Act Concerning Measures Under the Law of Companies, Cooperative Societies, Associations, Foundations and Commonhold Property to Combat the Effects of the COVID-19 Pandemic of 27 March 2020 (Federal Law Gazette, Part 1, p. 569).

Board of Management

In 2020, the Board of Management of Munich Reinsurance Company comprised nine members, including one woman.

Responsibilities of the members of the Board of Management and their mandates on statutory supervisory boards and comparable bodies

Member of the Board of Management/Responsibilities	Seats held on statutory supervisory boards[1]	Membership of comparable bodies of German and foreign business enterprises[1]
Dr. Joachim Wenning Chairman of the Board of Management Group Strategy and M&A Group Communications Group Audit Economics, Sustainability & Public Affairs[3] Group Human Resources Group Executive Affairs Group Compliance and Legal	ERGO Group AG[2] (Chair)	–
Dr. Thomas Blunck Life and Health Capital Partners Digital Partners (until 30 November 2020)	ERGO Group AG[2]	–
Nicholas Gartside Chief Investment Officer Group Investments Third Party Asset Management	–	–
Dr. Doris Höpke Labour Relations Director Europe and Latin America Human Resources	–	New Reinsurance Company Ltd., Switzerland[2] (President)
Dr. Torsten Jeworrek Reinsurance Development Internet of Things Corporate Underwriting Claims Accounting, Controlling and Central Reserving for Reinsurance Information Technology	ERGO Digital Ventures AG[2] ERGO International AG[2]	–
Dr. Christoph Jurecka Chief Financial Officer Financial and Regulatory Reporting Group Controlling Integrated Risk Management Group Taxation Investor and Rating Agency Relations	ERGO Group AG[2]	–
Dr. Achim Kassow (since 1 May 2020) Asia Pacific and Africa Central Procurement Services	ERGO International AG[2]	–
Hermann Pohlchristoph (until 30 April 2020) Asia Pacific and Africa Central Procurement Services	–	–
Dr. Markus Rieß Primary Insurance/ERGO	ERGO Deutschland AG[2] (Chair) ERGO Digital Ventures AG[2] (Chair) ERGO International AG[2] (Chair) ERGO Technology & Services Management AG[2] (Chair)	Next Insurance, Inc., USA
Dr. Peter Röder (until 31 December 2020) Global Clients and North America	EXTREMUS Versicherungs-AG	Munich Re America Corporation, USA[2] (Chair) Munich Reinsurance America, Inc., USA[2] (Chair)
Stefan Golling (since 1 January 2021) Global Clients and North America	–	Munich Re America Corporation, USA[2] (Chair) Munich Reinsurance America, Inc., USA[2] (Chair)

1 As at 31 December 2020.
2 Mandate within the Munich Re Group.
3 Including responsibility for environmental, social and governance (ESG) issues.

The Board of Management is responsible for managing the Company, in particular for setting the Company's objectives and determining strategy. It is bound to act in the Company's best interests. It should take account of the interests of shareholders, employees, and other stakeholders of Munich Reinsurance Company, with the objective of sustainable value creation. The Board of Management is responsible for effecting adequate risk management and risk control in the Company. It must ensure that statutory requirements and internal Company rules are observed, and works to ensure compliance by Group companies.

Compliance

The Group Compliance and Legal division (GCL) of Munich Reinsurance Company reports directly to the Chairman of the Board of Management. GCL manages the compliance activities and monitors their implementation by means of the Compliance Management System (CMS). The CMS is the methodical framework for the structured implementation of early warning, risk control, consulting and monitoring functions.

In order to further strengthen compliance within the Group, the compliance whistleblowing portal serves as another channel of communication to complement the independent external ombudsperson. Staff members and third parties can use the portal to anonymously report any activity that may cause reputational damage, suspected contraventions of the law, especially financial crime (such as corruption offences, and money laundering), contraventions of antitrust law, insurance supervisory law, market abuse law, data protection law, and any serious breach of associated internal rules and regulations.

Munich Re has a Group-wide system for reporting contraventions of laws and regulations, and for monitoring enquiries and changes with regard to legal and regulatory requirements. The system allows for ongoing documentation and rapid reporting up to the Board of Management.

Further information about compliance and the key features of the CMS can be found at www.munichre.com/en/compliance.

Working procedures of the Board of Management

The work of the Board of Management, in particular the allocation of responsibilities among the individual Board members, matters reserved for the full Board of Management, and the majority required to pass resolutions, is regulated by rules of procedure issued by the Supervisory Board. The full Board of Management decides on all matters that, either by law, or according to the Articles of Association or rules of procedure, require a resolution of the Board of Management. In particular, it is responsible for matters requiring the approval of the Supervisory Board, for items which have to be submitted to the Annual General Meeting, for tasks which constitute management functions or are of exceptional importance, and for significant personnel issues.

Meetings of the Board of Management take place as required, but generally at least once a month, and are presided over by the Chairman of the Board of Management. The adoption of a resolution requires the majority of votes cast; in the event of a tie, the Chairman has the casting vote. The members of the Board of Management cooperate closely for the benefit of the Company. On an ongoing basis, they inform each other about all important business transactions.

Composition and working procedures of the Board of Management committees

Three Board of Management committees ensure efficient work by the Board of Management: the Group Committee, the Reinsurance Committee, and the Strategy Committee.

Composition of the Board of Management committees[1]

Group Committee	Dr. Joachim Wenning (Chair) Dr. Christoph Jurecka
Reinsurance Committee	Dr. Torsten Jeworrek (Chair) Dr. Thomas Blunck Stefan Golling (from 1.1.2021) Dr. Doris Höpke Dr. Achim Kassow (from 1.5.2020) Hermann Pohlchristoph (until 30.4.2020) Dr. Peter Röder (until 31.12.2020) Chief Financial Officer for the reinsurance field of business[2]
Strategy Committee	Dr. Joachim Wenning (Chair) Nicholas Gartside Dr. Torsten Jeworrek Dr. Christoph Jurecka Dr. Markus Rieß

1 As at 31 December 2020.
2 No voting rights.

Group Committee
The Group Committee (GC) is the central management committee of the Group. It decides in particular on fundamental issues concerning the strategic and financial management of the Group for all fields of business, and on the principles of general business policy and organisation within the Group. The Committee also makes decisions on all matters of fundamental importance relating to the divisions headed by its voting members. In addition, it serves as an executive committee with responsibility for important ongoing issues, in particular the approval of significant individual transactions.

Reinsurance Committee
The Reinsurance Committee (RC) is the central management committee of the reinsurance field of business. It decides on all matters of fundamental importance for this field of business, except investments.

Strategy Committee
The Strategy Committee (StratC) is the central management committee for fundamental strategic matters in the fields of business (reinsurance, primary insurance). It makes decisions on all strategic matters of fundamental importance for the fields of business, including own investments and administered (third-party) funds.

The following applies to all Board of Management committees: Where decisions within the sphere of responsibility of a committee relate to issues reserved for the full Board of Management, the respective committee will prepare these matters for decision. Committee meetings are held regularly, and as required. Only members of the Board of Management have voting rights on the committees. The committees are further governed by their respective rules of procedure, as adopted by the full Board of Management.

Subcommittees of the Board of Management Committees
Both the Group Committee and the Reinsurance Committee have set up subcommittees. The Group Committee has set up the Group Risk Committee; the Reinsurance Committee has set up the Global Underwriting and Risk Committee as well as the Board Committee IT Investments. These subcommittees also include senior executives from Munich Reinsurance Company and the Group who do not have voting rights.

Subcommittees of the Board of Management committees[1]

Group Risk Committee	Dr. Christoph Jurecka (Chair) Dr. Joachim Wenning Chief Risk Officer (Group)[2]
Global Underwriting and Risk Committee	Dr. Torsten Jeworrek (Chair) Dr. Thomas Blunck Stefan Golling (from 1.1.2021) Dr. Peter Röder (until 31.12.2020) Chief Financial Officer for the reinsurance field of business[2] Chief Risk Officer (Group)[2] Head of Head of Investment Strategies[2] Head of CU (Corporate Underwriting)[2]
Board Committee IT Investments	Dr. Torsten Jeworrek (Chair) Dr. Thomas Blunck Dr. Achim Kassow (from 1.5.2020) Hermann Pohlchristoph (until 30.4.2020) Chief Financial Officer for the reinsurance field of business[2]

1 As at 31 December 2020.
2 No voting rights.

The work of these subcommittees is governed by their own written rules of procedure. Both the Group Risk Committee and the Global Underwriting and Risk Committee deal with risk management issues, albeit with different emphases. The Board Committee IT Investments is responsible for IT investments.

The Group Investment Committee – a subcommittee of the Group Committee responsible for substantiating investment principles for the Group and the fields of business, and for other important issues in relation to investments – was dissolved as at 30 November 2020.

Collaboration between Board of Management and Supervisory Board

The Board of Management and the Supervisory Board work together closely and in a spirit of trust for the benefit of the Company.

The Board of Management determines the strategic direction of the Company in conjunction with the Supervisory Board. The Board of Management reports regularly and as needed to the Supervisory Board about all questions relevant to the Company. The Chairman of the Supervisory Board maintains regular contact with the Board of Management between meetings – in particular with the Chairman of the Board of Management – in order to discuss issues of strategy, planning, business development, the risk situation, risk management and Company compliance. The Supervisory Board has defined the Board of Management's information and reporting obligations in detail. The Supervisory Board's consent is required before the Board of Management can conduct specific types of transactions, which include the following: annual financial planning, certain investments and divestments, the implementation of share buy-back programmes, the conclusion of inter-company agreements, and the execution of corporate restructurings in which the Company holds a stake. The Supervisory Board's approval is also required for sideline activities assumed by members of the Board of Management and for important transactions involving persons closely associated with them as defined in Section 111b(1) of the German Stock Corporation Act (AktG).

Supervisory Board

Pursuant to the Articles of Association, the Supervisory Board of Munich Reinsurance Company comprises twenty members: half are shareholder representatives and are elected by the Annual General Meeting. The other ten members are elected employee representatives from Group companies in the EU and EEA.

Members of the Supervisory Board and their mandates on statutory supervisory boards and comparable bodies[1]

Member of the Supervisory Board	Seats held on statutory supervisory boards	Membership of comparable bodies of German and foreign business enterprises
Dr. Nikolaus von Bomhard (Chairman) Chairman of the Supervisory Board of Munich Reinsurance Company Member since 30 April 2019	Deutsche Post AG (Chair)[4]	Athora Holding Ltd., Bermuda (Chair)[6]
Dr. Anne Horstmann[2] (Deputy Chair) Employee of ERGO Group AG Member since 30 April 2014	–	–
Prof. Dr. Dr. Dr. h.c. Ann-Kristin Achleitner Scientific Co-Director of the Center for Entrepreneurial and Financial Studies (CEFS) at the Technical University of Munich Member since 3 January 2013	–	Linde plc, Ireland[4] Luxembourg Investment Company 261 S.à r.l., Luxembourg[5]
Dr. Kurt Wilhelm Bock Member of the Supervisory Board of Munich Reinsurance Company Member from 25 April 2018 until 29 April 2020	Fresenius Management SE[6] Bayerische Motorenwerke AG[4] Fuchs Petrolub SE (Chair)[4]	–
Clement B. Booth Member of the Board of Directors of Howden Group Holdings Limited, United Kingdom Member since 27 April 2016	Euroassekuranz Versicherungs-makler AG (Chair)[6]	Howden Group Holdings Limited, United Kingdom
Ruth Brown[2] Foreign Services Specialist at DAS Legal Expenses Insurance Member since 30 April 2019	–	–
Stephan Eberl[2] Chair of the Staff Council of Munich Reinsurance Company Member since 30 April 2019	–	–
Frank Fassin[2] Regional Section Head Financial Services at ver.di North Rhine-Westphalia Member since 22 April 2009	ERGO Group AG[3]	–
Dr. Benita Ferrero-Waldner Member of the Board of Directors of Santander Consumer Finance S.A., Spain Member since 12 February 2010	–	Santander Consumer Finance S.A., Spain
Prof. Dr. Dr. h.c. Ursula Gather Chair of Board of Trustees of Alfried Krupp von Bohlen und Halbach Foundation Member since 30 April 2014	thyssenkrupp AG[4]	–
Gerd Häusler Member of the Supervisory Board of Auto1 Group SE, Munich Member since 30 April 2014	Auto1 Group SE[4]	–
Eva-Maria Haiduk[2] Employee of ITERGO Informationstechnologie GmbH Member since 30 April 2019	–	–
Renata Jungo Brüngger Member of the Board of Management of Daimler AG Member since 3 January 2017	–	–
Stefan Kaindl[2] Head of Department at Munich Reinsurance Company Member since 30 April 2019	–	–

See the end of the table for footnotes.

Member of the Supervisory Board	Seats held on statutory supervisory boards	Membership of comparable bodies of German and foreign business enterprises
Gabriele Mücke[2] Chair of the Board of Management of Neue Assekuranz Trade Union – NAG Member since 30 April 2019	–	–
Ulrich Plottke[2] Employee of ERGO Group AG Member since 30 April 2014	ERGO Group AG[3]	–
Manfred Rassy[2] Exempted member of the Staff Council of Munich Reinsurance Company Member since 30 April 2019	–	–
Gabriele Sinz-Toporzysek[2] Employee of ERGO Beratung und Vertrieb AG Member since 30 April 2014	–	–
Carsten Spohr Chair of the Board of Management of Deutsche Lufthansa AG Member since 29 April 2020	–	–
Karl-Heinz Streibich Co-President of acatech – German Academy of Science and Engineering Member since 30 April 2019	Software AG (Chair)[4] Siemens Healthineers AG[4] Deutsche Telekom AG[4]	–
Dr. Maximilian Zimmerer Member of the Supervisory Board of Munich Reinsurance Company Member since 4 July 2017	Deutsche Beteiligungs AG[4] Investmentaktiengesellschaft für langfristige Investoren TGV (Chair)[6]	–

1 As at 31 December 2020.
2 Employee representative.
3 Mandate within the Munich Re Group.
4 Listed on the stock exchange.
5 Membership of a non-statutory supervisory board.
6 Company with fewer than 500 employees.

The Supervisory Board advises the Board of Management and monitors the management of the Company, but it is not authorised to take management action in place of the Board of Management. In accordance with a special rule applicable to (re)insurance companies, the Supervisory Board in particular also appoints the external auditor for the Company and Group financial statements and for the Half-Year Financial Report.

Working procedures of the Supervisory Board

The Supervisory Board has its own rules of procedure, which specify responsibilities, work processes and further modalities for the adoption of resolutions. The Audit Committee also has its own rules of procedure, which have been adopted by the full Supervisory Board.

The rules of procedure for the Supervisory Board and for the Audit Committee are available on the Munich Re website under www.munichre.com/supervisory-board.

The Supervisory Board normally meets at least six times during the financial year. Supervisory Board meetings are generally held with the members of the Supervisory Board personally present at the meeting (face-to-face meeting). If the Chairman of the Supervisory Board so rules, meetings of the Supervisory Board may also be held using electronic media, and individual members of the Supervisory Board may attend meetings via electronic media. The members of the Board of Management attend the meetings of the Supervisory Board unless the Chairman of the Supervisory Board decides otherwise. The Supervisory Board also meets regularly without the Board of Management.

The Supervisory Board is quorate if all its members have been invited to the meeting or called upon to vote, and if fifteen members – or ten members including the Chairman – participate in the vote. Alternatively, it is quorate if fifteen members participate in the vote. Supervisory Board resolutions are adopted by a majority of votes cast, unless the law or the Articles of Association require otherwise. In the event of a Supervisory Board vote being tied, should a second vote on the same motion also result in a tie, the Chairman of the Supervisory Board has a casting vote. The Chairman is authorised to make declarations for the Supervisory Board based on resolutions.

Self-assessment

The Supervisory Board and its committees regularly assess how effectively the Supervisory Board as a whole and also its individual committees perform their duties. Following preparations by the Standing Committee, the Supervisory Board conducted an internal self-assessment in 2020 based on a wide-ranging questionnaire. The Supervisory Board discussed the findings of the self-assessment in depth at its meeting on 15 October 2020. The self-assessment confirms that the working relationships within the Supervisory Board and with the Board of Management are professional and constructive, and characterised by a high degree of trust and candour. In addition, the findings document the efficient organisation and execution of meetings, as well as appropriate reporting by the Board of Management. There was no indication of any fundamental need for change. A few optimisation measures were identified and are being put into practice.

Composition and working procedures of the Supervisory Board committees

The Supervisory Board has set up six committees from among its members – the Standing Committee, the Personnel Committee, the Remuneration Committee, the Audit Committee, the Nomination Committee and the Conference Committee.

The committees adopt decisions by the majority of votes cast. With the exception of the Conference Committee, the chair of the committee has a casting vote in case of a tie. The full Supervisory Board is regularly informed about the work of the committees by their respective chairs.

Composition of the Supervisory Board committees[1]

Standing Committee	Dr. Nikolaus von Bomhard (Chair) Dr. Kurt Wilhelm Bock (until 29 April 2020) Stephan Eberl Gerd Häusler Dr. Anne Horstmann Dr. Maximilian Zimmerer (since 13 May 2020)
Personnel Committee	Dr. Nikolaus von Bomhard (Chair) Stephan Eberl Renata Jungo Brüngger
Remuneration Committee	Prof. Dr. Dr. Dr. h.c. Ann-Kristin Achleitner (Chair) Stephan Eberl Renata Jungo Brüngger
Audit Committee	Dr. Maximilian Zimmerer (Chair) Prof. Dr. Dr. Dr. h.c. Ann-Kristin Achleitner Dr. Nikolaus von Bomhard Stefan Kaindl Ulrich Plottke
Nomination Committee	Dr. Nikolaus von Bomhard (Chair) Prof. Dr. Dr. Dr. h.c. Ann-Kristin Achleitner Dr. Kurt Wilhelm Bock (until 29 April 2020) Dr. Maximilian Zimmerer (since 13 May 2020)
Conference Committee	Dr. Nikolaus von Bomhard (Chair) Dr. Kurt Wilhelm Bock (until 29 April 2020) Frank Fassin Dr. Anne Horstmann Dr. Maximilian Zimmerer (since 13 May 2020)

1 As at 31 December 2020.

Further details of the work of the Supervisory Board committees can be found in the report of the Supervisory Board and at www.munichre.com/supervisory-board.

The main responsibilities of the committees are as follows:

Standing Committee

The Standing Committee prepares meetings of the Supervisory Board, unless another committee is responsible for doing so. It decides on matters of Company business requiring the Supervisory Board's consent, unless the full Supervisory Board or another committee is responsible. In addition, the Standing Committee is responsible for an internal procedure – as per Section 111a(2) of the Stock Corporation Act (AktG) – that assesses related-party transactions. The Standing Committee also prepares the Report of the Supervisory Board to the Annual General Meeting, the Declaration of Conformity with the German Corporate Governance Code pursuant to Section 161 of the Stock Corporation Act (AktG), and the Statement on Corporate Governance for the Supervisory Board. Moreover, the Standing Committee prepares the annual self-assessment of the effectiveness of the Supervisory Board as a whole and its individual committees with regard to the performance of their duties. Further details about the self-assessment in the past financial year are provided in the Self-assessment section and in the Report of the Supervisory Board.

Personnel Committee

The Personnel Committee prepares the appointment of members to the Board of Management. It also prepares the long-term succession planning together with the Board of Management, including setting targets for the number of women on the Board of Management. In addition, the Personnel Committee represents the Company in matters concerning the members of the Board of Management, and is responsible for personnel matters involving members of the Board of Management, unless these are issues that are the responsibility of the full Supervisory Board or the Remuneration Committee. This Committee approves loan transactions between the Company and members of the Board of Management and their related parties. The Personnel Committee also decides whether to approve sideline activities of members of the Board of Management, particularly mandates in supervisory boards or similar committees.

Remuneration Committee

The Remuneration Committee is responsible for preparing the Supervisory Board's resolutions on determining, amending, and regularly reviewing the remuneration system for the Board of Management; this Committee also determines and reviews the total remuneration of the individual members of the Board of Management. In addition, the Remuneration Committee prepares the Supervisory Board's resolutions regarding determination of the level of variable remuneration components, determination of the performance criteria and objectives for variable remuneration, the assessment of objectives in cooperation with the Personnel Committee, and the determination of the variable remuneration to be granted to the individual Board of Management members. This Committee is also responsible for preparing the remuneration components of the employment contracts of members of the Board of Management, and for remuneration reporting with regard to the remuneration of members of the Board of Management and the Supervisory Board.

Audit Committee

The Audit Committee prepares Supervisory Board resolutions on the adoption of the Company's annual financial statements and approval of the Group financial statements. It discusses the Half-Year Financial Report and the material information underlying the quarterly reports, and receives the audit reports, other reports and statements by the external auditor. The Audit Committee also discusses the essential components of the Solvency II reporting with the Board of Management.

This Committee oversees the accounting, the accounting process, and the appropriateness and effectiveness of the internal control system. It also oversees the appropriateness and effectiveness of the risk management system, the compliance management system (including whistleblowing) and handling of material compliance cases, the actuarial function system and the internal audit system. Furthermore, the Audit Committee is responsible for examining potential claims due to breach of duty by members of the Board of Management.

This Committee prepares decisions on the appointment of the external auditor, carries out the selection process, and makes recommendations in this regard to the full Supervisory Board. The Audit Committee is responsible for assessing performance and monitoring the independence of the external auditor; it also assures the quality of the audit and any additional services provided by the external auditor. In particular, it appoints the external auditor for the Company and Group financial statements as well as for any voluntary external audit of the combined non-financial statement. The Audit Committee also determines focal points of the audits and agrees the auditor's fee for the annual audits; the same applies to the review of the Half-Year Financial Report and the review of the solvency balance sheets. Beyond this, the Committee handles the approval and monitoring of non-audit services.

After in-depth deliberations by the Board of Management, the Audit Committee prepares the annual discussion of the risk strategy by the Supervisory Board, and discusses any changes to or deviations from the risk strategy with the Board of Management during the year.

In this connection, the Audit Committee hears reports not only from the Board of Management but also directly from the Group Chief Compliance Officer, the Group Chief Auditor, the Group Chief Risk Officer, the Head of the Actuarial Function and, if required, from the General Counsel.

Nomination Committee

The Nomination Committee is made up exclusively of shareholder representatives.

This Committee provides the Supervisory Board with names of suitable candidates that the latter can nominate for election at the Annual General Meeting. As a basis for this, the shareholder representatives have developed and adopted a list of criteria for the selection of suitable candidates for the Supervisory Board. The Nomination Committee also proposes suitable candidates to the Supervisory Board for the election of shareholder representatives to Supervisory Board committees and as chairs of the respective committees.

Conference Committee

If the first round of voting concerning the appointment or dismissal of members of the Board of Management does not result in the required two-thirds majority, the matter will be addressed by the Conference Committee before a second vote is held in the Supervisory Board.

Other corporate governance practices

Munich Re Code of Conduct

The Munich Re Code of Conduct clearly states the Group's definition of legally impeccable behaviour based on ethical principles. It contains regulations that are binding on all employees and management in the Group. On the basis of the Code of Conduct, staff undertake to comply with applicable laws and Munich Re corporate regulations to prevent loss, damage or harm to the Group.

Further information can be found on our website under www.munichre.com/code-of-conduct.

United Nations Global Compact

To make clear our understanding of important values inside and outside our Group, Munich Re joined the United Nations Global Compact in 2007. The ten principles of this declaration (covering human rights, labour standards, environmental protection and combating corruption) form the benchmark for our actions in all fields of business within the Group, and thus provide the fundamental framework for our corporate responsibility. Munich Re's Code of Conduct takes full account of these principles.

We report annually on the implementation of these principles in our Communication on Progress for the UN Global Compact.

Principles for Responsible Investment

In 2006, we became the first German company to sign the Principles for Responsible Investment (PRI). We implement the principles for sustainable investment through our asset manager MEAG, for example, and we report annually on adherence to these principles.

Net-Zero Asset Owner Alliance

Beyond the PRI, we joined the Net-Zero Asset Owner Alliance in early 2020. Munich Re thus undertakes to gradually transition its investment portfolio to net-zero greenhouse gas emissions by 2050.

Principles for Sustainable Insurance

The Principles for Sustainable Insurance (PSI) – which Munich Re played an active role in formulating and which we signed in 2012 as one of the first signatories – serve as a guide for anchoring environmental, social and governance (ESG) aspects along the value chain in our core business.

Further information on these voluntary commitments is available on our Corporate Responsibility Portal at www.munichre.com/cr-en.

Equal participation of men and women in management positions

As part of implementing the Act on Equal Participation of Men and Women in Private-Sector and Public-Sector Management Positions (FüPoG), the Supervisory Board and Board of Management of Munich Reinsurance Company set the following targets and deadlines to achieve these targets:

As at 1 January 2016, the Supervisory Board set a target quota to be achieved by 31 December 2020 that at least 20% of the members of the Board of Management should be women. As at the deadline of 31 December 2020, the percentage of women on the Board of Management was 11.1%, thus falling short of the target quota.

When appointing new Board of Management members, the Supervisory Board has extensively discussed a higher percentage of women Board of Management members in addition to the need for a Board of Management that meets all requirements and is balanced in its composition. Despite this, it has not been possible to increase the percentage of women during recent appointments. As part of redoubling its efforts, the Supervisory Board has increased the target quota such that, effective 1 January 2021, at least 25% of the members of the Board of Management should be women by 31 December 2025. This is to be achieved by, among other things, further increasing the percentage of women in the talent pools and by Board of Management members mentoring selected women candidates one on one.

From 1 July 2016, the Board of Management set the target quota for female participation at 4.0% for the first management level below the Board of Management, and 20.1% for the second management level below the Board of Management. Both targets were to be achieved by 31 December 2020. As at the deadline of 31 December 2020, the target quota was surpassed, with women accounting for 7.9% of managers in the first level below the Board of Management. As women constituted 19.4% of the managers two levels below the Board of Management, the target quota for this level was not met.

This second-level target was not met due to organisational changes that affected management positions and some female managers having departed Munich Re as part of the Voluntary Programme. Management turnover remained low on the whole, with few positions opening up for new managers.

With effect from 1 January 2021, the Board of Management significantly increased the target quota for female participation to 15% for the first management level below the Board of Management, and 35% for the second management level below the Board of Management. Both target quotas are to be achieved by 31 December 2025.

Munich Re has made concerted efforts over the years to foster diversity, with a particular emphasis on talented women. Mentoring, training and coaching programmes as well as networks of women exist throughout the Group and are making an impact. It was thus possible to increase to 35% the percentage of female managers worldwide (as at 31 December 2020). Women are well represented in the Group's talent programmes, constituting between 31% (in the Group's top talent pool) and 38% of participants (in the high-potential programme). In combination with established training and development measures, as well as a focused approach to filling management vacancies, we will continue working resolutely on meeting our targets by the end of 2025.

The management levels are defined as follows: A manager at the first management level reports to a member of the Board of Management. A manager at the second management level reports to a manager at the first management level. For these purposes, only staff members with disciplinary responsibility are categorised as managers.

Moreover, in accordance with legislation and the objectives concerning composition of the Supervisory Board, at least 30% of seats on the Supervisory Board of Munich Reinsurance Company must be filled by women, and at least 30% by men.

In accordance with the Co-Determination Agreement, the employee and shareholder representatives ensure separate compliance with the statutory gender quotas on the Supervisory Board.

On 31 December 2020, 55% of seats on the Supervisory Board of Munich Reinsurance Company were occupied by men and 45% by women, of which four women were shareholder representatives and five were employee representatives. The minimum requirements are thus met by both sets of representatives on the Supervisory Board.

Diversity concepts for the Board of Management and Supervisory Board

Diversity is taken into account when filling management positions in the Company and in the composition of the Board of Management and the Supervisory Board. Diversity is an important part of Munich Re's corporate culture. The tenets of diversity are set out in the Diversity Policy. This applies to all employees across the Group.

Diversity concept for the Board of Management
When appointing members of the Board of Management, the Supervisory Board is mindful of diversity in terms of professional and educational background, internationality, age, and gender. The aim is to ensure that the Board's composition is as diverse as possible, complementary, and strong as a whole. Gender diversity is described in the section entitled Equal participation of men and women in management positions.

Members of the Board of Management bear individual responsibility for the divisions they head, and joint responsibility for overall management of the Company. In addition to the specific knowledge and experience required for each division, all Board members must have a sufficiently broad range of knowledge and experience in all areas of our business to ensure that they can monitor each other.

The Board of Management and Supervisory Board have drawn up a Fit and Proper Policy under Solvency II rules; this policy sets out fitness and propriety requirements for Board members. Accordingly, it must be ensured that the members of the Board of Management have the necessary qualifications in their respective individual areas of responsibility. The policy also requires the Board of Management overall to have adequate qualifications, experience and expertise at least in the business, economic, market and regulatory environment, as well as the business strategy, business model, governance system and risk model of Munich Reinsurance Company, and financial and actuarial analysis.

The differences between the business models within the Group and between divisions in the reinsurance business field require that the Board of Management have a broad professional and educational background.

In its current composition, the Board of Management shows a diverse range of professional training and education. It includes graduates of various degrees and vocational training (e.g. business and economics, law, mathematics, physics, and political science). The CVs of the individual members of the Board of Management have different focuses – in operative business, in certain markets, or in specialist areas. The diverse careers and personalities within the Board of Management express the versatility of our business model, and reflect the complex requirements faced by the Board.

The internationality of the Board is also taken into account. The global business activities of Munich Re mean that all members of the Board of Management have international management experience.

The average age of the members of the Board of Management at the end of the 2020 financial year was 54; the youngest Board member was 45, and the oldest was 60. The age limit for membership of the Board of Management is 67; members of the Board of Management must leave the Board no later than the end of the calendar year in which they turn 67. The requirements for age limits are thus met.

First-time appointments of members of the Board of Management are as a rule for a period of three years. A reappointment more than one year before the end of the appointment period with simultaneous cancellation of the current appointment will only be made in special circumstances. With the exception of aspects relating to remuneration, which are dealt with by the Remuneration Committee, preparation for the appointment of members of the Board of Management is the responsibility of the Personnel Committee of the Supervisory Board, which provides suggestions for suitable candidates to the full Supervisory Board. The Personnel Committee is guided by the Fit and Proper Policy, the specific requirements of the relevant function, and the above-mentioned diversity considerations. In conjunction with the Board of Management, the Personnel Committee is also responsible for succession planning. Succession planning for the Board of Management is systematic and long-term. Some candidates are drawn from the Group's top talent pool, called the Group Management Platform. Care is taken to make sure that there is a balanced composition of experience, gender and internationality. The succession plan is continually updated at the annual Group Career Session by the participating heads of the fields of business.

The Board members' CVs can be found at www.munichre.com/board-of-management.

Diversity concept for the Supervisory Board/ Objectives of the Supervisory Board concerning its composition, competence profile and sets of criteria

The composition of the Supervisory Board also follows a concept of diversity with regard to its members' professional and educational background, internationality, age, and gender. Gender diversity is described in the section on Equal participation of men and women in management positions. The aim of the diversity concept is to bring a pluralistic wealth of experience to the Supervisory Board through the interaction of members that have different professional and educational backgrounds and are diverse in terms of internationality, age and gender, thereby enhancing the Board's efficiency for the benefit of the Company.

Members of the Supervisory Board of Munich Reinsurance Company must meet fitness and propriety requirements. Overseeing the Company professionally and competently and actively accompanying its development demands an appropriate level of diversity on the Supervisory Board in terms of qualifications, knowledge and relevant experience.

The Supervisory Board has set itself specific objectives concerning its composition and has defined requirements regarding the competences of the Supervisory Board as a whole. Moreover, both employee representatives and shareholder representatives have each adopted a set of criteria that specifies more far-reaching requirements.

In accordance with the competence profile for the Supervisory Board as a whole and both sets of criteria, it must be ensured that – in terms of the professional and educational background of its members – the Supervisory Board as a whole has adequate knowledge, skills and experience with regard to the markets, business processes, competition and the requirements of reinsurance, primary insurance and investment in order to perform its duties properly. Appropriate knowledge of the following fields is also required: risk management, accounting, controlling, internal audit, asset-liability management, law, regulatory supervision, compliance, tax, and strategically relevant topics, such as innovation and digitalisation. The competence profile also includes a good overall understanding of the business model. Board members must collectively be familiar with the sector in which the Company operates.

Any additional requirements for specific duties will be defined on a case-by-case basis. At least one member of the Audit Committee must have expertise in accounting or auditing.

When proposing candidates for election to the Supervisory Board, the Supervisory Board generally only considers nominees aged 70 or under (age limit). The Supervisory Board has deliberately opted for a flexible target age limit, which provides sufficient room for manoeuvre for assessing the circumstances of the individual case. This expands the pool of potential candidates and allows in particular for the re-election of members of the Supervisory Board with many years of experience. Future nominations of candidates for election to the Supervisory Board should also take into account that at the time of election no candidate should already have been on the Supervisory Board for a continuous period of more than ten years. Normally, Supervisory Board members should not serve on the Board for a continuous period of more than twelve years.

The competence profile also includes other personal qualities of Supervisory Board members, such as entrepreneurial and international experience, having sufficient availability to devote to the role, a strong commitment to corporate governance, commitment to the sustainable, long-term value-creating orientation of the Company and its business policy for shareholders, a solution-oriented approach, strategic expertise and the competence to effect change. Members of the Supervisory Board must have no relevant (major and not only temporary) conflicts of interest.

The Nomination Committee of the Supervisory Board selects candidates for the shareholder representatives – based on the objectives concerning composition of the Supervisory Board, the competence profile and the set of criteria for the shareholder representatives – and prepares the Supervisory Board's election proposals to the Annual General Meeting. This Committee draws up a requirements profile to be used in the selection process. Shareholders receive the detailed CVs of the respective candidates along with their invitation to the Annual General Meeting. When selecting candidates, care is taken to achieve diversity in terms of the composition of the Supervisory Board to ensure that the Supervisory Board as a whole fits the required competence profile.

Half of the members of the Supervisory Board are elected representatives of Group employees in the EU/EEA. The employee representatives on the Supervisory Board are governed by special co-determination rules under the Co-Determination Agreement. The Co-Determination Agreement also specifies a corresponding set of criteria for the employee representatives, including diversity criteria, which serves as a basis for electing employee representatives to the Supervisory Board. The bodies responsible for making election nominations to the European Electoral Board under the Co-Determination Agreement should take these criteria into account within the limits prescribed by applicable regulations to ensure that the diversity criteria and other requirements are met.

In its current composition, the Supervisory Board demonstrates diversity of professional training and education, and also has the overall knowledge, expertise and professional experience necessary for the proper performance of its duties. Members have diverse professional and educational focuses (including law, economics, mathematics, natural sciences, engineering, and commercial and insurance-specific training). The Supervisory Board members also have management experience in various sectors (such as finance and insurance, software, automotive, and aviation), and extensive experience in academia and politics. In addition, above all the Chair of the Audit Committee of the Supervisory Board

– Maximilian Zimmerer – and the members of the Audit Committee – Ann-Kristin Achleitner and Nikolaus von Bomhard – possess recognised expertise in accounting and auditing. In particular Maximilian Zimmerer and Ann-Kristin Achleitner are also ESG experts. The different CVs and personalities within the Supervisory Board reflect the wide range of duties of the Board and meet the associated requirements.

Most of the members of the Supervisory Board also have international experience. The members of the Supervisory Board come from a number of different countries, and this reflects the Company's international activities.

The average age of members of the Supervisory Board at the end of the 2020 financial year was 60; the youngest member was 50, and the oldest was 72. There is therefore a sufficient age mix on the Supervisory Board. In the case of Supervisory Board member Benita Ferrero-Waldner, the Supervisory Board has made use of the flexible approach to the target age limit on the basis of her expertise and after careful consideration of the circumstances in this specific instance.

The CVs of the members of the Supervisory Board can be found at www.munichre.com/supervisory-board.

Independence

The shareholder representatives on the Supervisory Board aim to ensure that, as far as possible, all candidates whom they propose to the Annual General Meeting for election are independent.

In implementing the German Corporate Governance Code, the shareholder representatives have set themselves the objective of having at least eight independent shareholder representatives on the Supervisory Board.

Taking into account the ownership structure, the shareholder representatives are of the opinion that all ten shareholder representatives meet the independence criteria of the German Corporate Governance Code. In their assessment, they took into particular account whether the member of the Supervisory Board or a close relative of the member of the Supervisory Board (i) is related to a member of the Board of Management, (ii) was a member of the Board of Management of the Company in the two years preceding the appointment to the Supervisory Board, (iii) may derive benefits that are influenceable by the Board of Management as a consequence of their membership on the Supervisory Board (for instance through a consultancy contract), (iv) represents in particular a specific group that pursues individual or special interests, (v) holds a major direct or indirect stake in the company or represents a shareholder/group that holds such a stake or its interests, (vi) held a board or consultancy function in the year preceding the appointment, in particular for competitors, clients, suppliers or creditors of the Company or for an entity dependent on these which might lead to a relevant, i.e. material and not only temporary, conflict of interest in their view or in the view of the Company, (vii) has been a partner or employee of the auditors during the past three years and/or (viii) has been a member of the Supervisory Board for more than 12 years.

Combined management report

This report combines the management reports of
Munich Reinsurance Company and the Munich Re Group.

Group

Munich Re is one of the world's leading risk carriers and provides both insurance and reinsurance under one roof. This enables the Group to cover large stretches of the value chain in the risk market. Almost all reinsurance units operate under the uniform brand of Munich Re. ERGO Group AG (ERGO) is active in nearly all lines of life, health and property-casualty insurance. The majority of Munich Re's investments worldwide are managed by MEAG, which also offers its expertise to private and institutional investors outside the Group. For up-to-date information about Munich Re, visit www.munichre.com.

A core guiding principle for Munich Re is acting in a far-sighted and responsible manner in the interests of both the Group and society. We have thus based our Group-wide corporate responsibility strategy on the shared value approach. This means that, in our business operations, we bring together economic and social progress. For a comprehensive perspective on this key concern of Munich Re, visit www.munichre.com/cr-en.

We also report on non-financial aspects as required by the European Union's Corporate Social Responsibility (CSR) Directive. These requirements have been transposed into the German Commercial Code (HGB). Detailed information, especially on reportable aspects deemed material by Munich Re, can be found in the combined non-financial statement.

Group structure

The reinsurance companies of the Group operate globally and in virtually all classes of business. We offer a full range of products, from traditional reinsurance to innovative solutions for risk assumption. Our companies conduct their business from their respective headquarters and via a large number of branches, subsidiaries and affiliated companies. The reinsurance group also includes specialty primary insurers, whose business requires special competence in finding appropriate solutions.

In ERGO, we combine Munich Re's primary insurance activities. Some 69% of gross premiums written by ERGO derive from Germany, and 31% from international business – mainly from central and eastern European countries. ERGO also operates in Asian markets, particularly in India and China.

Segmentation

Munich Reinsurance Company and ERGO Group AG are under unified control within the meaning of the German Stock Corporation Act (AktG). The relevant statutory regulations, control agreements and Group directives govern the distribution of responsibilities and competences for key decisions between Group management and ERGO. Control and profit-transfer agreements are in place with many Group companies, especially between ERGO Group AG and its subsidiaries.

Reinsurance

In reinsurance, we operate in life, health and property-casualty business. Under reinsurance, we also include specialised primary insurance activities that are handled by the reinsurance organisation and business from managing general agencies (MGAs). Organisationally, we have pooled worldwide activities covering the Internet of Things (IoT) into the new divisional unit "Global IoT".

As reinsurers, we write our business in direct collaboration with primary insurers, but also via brokers and within the framework of strategic partnerships. In addition to traditional reinsurance business, we participate in insurance pools, public-private partnerships, business in specialist niche segments, and also as a primary insurer. We also offer our clients a wide range of special products, customised insurance solutions and services, which we manage from within our reinsurance organisation. Our clients thus have direct access to the expertise, innovative strength and capacity of a leading global risk carrier. Thanks to our capital management know-how, we are a sought-after partner for products geared to our clients' balance-sheet, solvency and rating-capital requirements, as well as their risk models.

Focus of life and health reinsurance operations

Our international life and health reinsurance business is written in the Life and Health division. This is split into three geographical regions and one international unit that develops specialised solutions for savings and annuity products. The focus of the division's business activities is on traditional reinsurance solutions that concentrate on the transfer of mortality risk. Moreover, we are active in the market for living benefits products. These include products such as occupational disability, long-term care, and critical illness, which have seen increased demand. We also offer capacity for longevity risks.

Besides assuming underwriting risks, we support our clients in developing new life insurance products. Moreover, we offer clients a wide range of increasingly digital services, from medical expertise to automated risk assessment and claims handling solutions.

In addition, we continuously expand our tailor-made structured concepts for clients seeking to optimise their capitalisation, liquidity, or key performance indicators.

Demand for reinsurance is also growing with regard to the capital market risks often embedded in savings products. We provide our clients with comprehensive advice on product design while offering hedging for embedded options and guarantees linked to the capital markets. Our own exposure is transferred back to the capital markets.

In order to ensure proximity to our clients, we are represented in many markets with local subsidiaries and branches. We write the main portion of our business via our Canadian branch and our subsidiary in the USA. In Europe, we have operations in Germany, the United Kingdom, Spain and Italy. At the same time, we have a strong local presence in Australia and South Africa, and in all important growth markets in Latin America and Asia. Asian business is centrally managed by a dedicated branch in Singapore, which underlines the strategic importance of this region for life and health reinsurance.

The property-casualty reinsurance divisions

The Global Clients and North America division handles our accounts with major international insurance groups, globally operating Lloyd's syndicates and Bermuda companies. It also pools our know-how in the North American market and is responsible for our property-casualty subsidiaries in this region, as well as international special-lines business such as marine, aviation and space, and global large-risk business, which is pooled in our Facultative & Corporate unit.

The three major US-based subsidiaries are Munich Reinsurance America, Inc., The Hartford Steam Boiler Inspection and Insurance Company (HSB), and American Modern Insurance Group, Inc. (American Modern). Munich Reinsurance America, Inc. writes property-casualty reinsurance business and niche primary insurance business. The primary insurers HSB and American Modern specialise in products for which client proximity and – like in reinsurance – risk understanding are paramount. Moreover, we pooled the activities of various specialty insurers in commercial primary insurance business in the North American market within Munich Re Specialty Insurance (MRSI) to better tap into the business potential in this market segment. The market presence is also supported by Munich Re Specialty Group, a leading provider of marine insurance and insurance solutions for the energy industry.

Our Europe and Latin America Division is responsible for property-casualty business with our clients from Europe, Latin America and the Caribbean. Business Units – for example, in London, Madrid, Paris and Milan – afford us market proximity and regional competence. In the South American markets, our Brazilian subsidiary Munich Re do Brasil Resseguradora S.A. and our liaison office in Bogotá help to ensure client proximity. The division also includes the divisional unit Financial Risks. Great Lakes Insurance SE, which has its headquarters in Munich and a large branch office in London, is also assigned to this division. We pool a significant share of our Group-wide business activities in the United Kingdom in these units. Munich Re is prepared for the consequences of the United Kingdom's exit from the European Union.

The Asia Pacific and Africa Division conducts property-casualty reinsurance business with our clients in Africa, Asia, Australia, New Zealand and the Pacific Islands. Branches in Mumbai, Beijing, Seoul, Singapore, Sydney and Tokyo, along with liaison offices in Bangkok and Taipei, allow us to take full advantage of the business opportunities in the rapidly growing Asia-Pacific insurance market. In the African market, we are represented by our subsidiary Munich Reinsurance Company of Africa Ltd., headquartered in Johannesburg. These units and other liaison offices guarantee our competitiveness in these key growth markets.

ERGO

Munich Re's second pillar is primary insurance business.

Operating under the umbrella of ERGO are four separate units: ERGO Deutschland AG, ERGO International AG, ERGO Digital Ventures AG and ERGO Technology & Services Management AG. German business is concentrated in ERGO Deutschland AG. ERGO International AG manages international business. ERGO Digital Ventures AG is responsible for digitalisation, while ERGO Technology & Services Management AG is increasingly managing all of the technology activities.

Via ERGO, we offer products in all the main classes of insurance: life insurance, health insurance, and in nearly all lines of property-casualty insurance, including travel insurance and legal protection insurance. With these products – in combination with the provision of assistance, other services and individual consultancy – we cover the needs of retail and corporate clients. ERGO serves some 35 million mostly retail customers in around 30 countries, with the focus on Europe and Asia. The latest information on ERGO can be found at www.ergo.com.

With ERGO Versicherung AG, our primary insurance arm is one of Germany's largest providers of property and legal protection insurance. ERGO Vorsorge Lebensversicherung AG is ERGO's life insurer for capital-market-linked and biometric products. It offers solutions for all three types of old-age provision, mainly based on innovative and flexible unit-linked insurance products. ERGO Lebensversicherung AG and Victoria Lebensversicherung AG are responsible for running off our traditional life insurance portfolio. DKV Deutsche Krankenversicherung AG offers a full portfolio of comprehensive private health insurance, products designed to supplement statutory health cover, and company health insurance. ERGO's health insurance offering focuses on products that supplement statutory health insurance, especially supplementary dental plans.

The specialist travel insurer ERGO Reiseversicherung AG is a market leader internationally as well as in Germany.

In Germany, ERGO's tied agents (agency sales) and ERGO Pro (structured sales force) are bundled under one roof in the sales company ERGO Beratung und Vertrieb AG. Direct sales in Germany are managed by ERGO Direkt AG. All of ERGO's German sales organisations were developed further in 2020 – in particular with regard to digitalisation and implementation of the new "hybrid customer" business model. Today's clients are the focus of the new business model; they can choose from an essentially identical range of products via all online and offline channels. ERGO is thus making integrated use of various channels – such as face-to-face consultation, internet, online chat, email, telephone or even video consultation – to leverage new potential.

ERGO Digital Ventures AG is responsible for digital transformation. It provides support via innovative sales strategies, manages the fully digital player nexible, and is setting up automated technologies, such as artificial intelligence and robotics. ERGO Digital Ventures AG is also responsible for further developing international legal protection and ERGO Reiseversicherung AG business, and driving ahead their digitalisation. ERGO Mobility Solutions seeks to establish partnerships and alliances with vehicle manufacturers, dealerships and mobility service providers. Further achievements in 2020 included the start of sales activities at Great Wall Motors in China and the conclusion of a cooperation agreement with BMW.

ERGO Technology & Services Management AG is a dedicated arm of ERGO Group AG in charge of managing the provision of digital platforms, solutions and services. It has a global remit and supports ERGO in designing optimum insurance products and fostering the most effective customer channels. It consists of ITERGO GmbH in Germany and ERGO Technology & Services S.A. in Poland. The latter was established in January 2021 by integrating ERGO Digital IT GmbH and Atena S.A., thus combining the strengths and capabilities of both organisations in a single entity.

In Europe, ERGO is concentrating mainly on expanding its market presence in Poland, the Baltic States, Greece, Spain, Austria and Belgium. In Asia, ERGO is represented through joint ventures in the rapidly growing markets of India and China. In India, ERGO is well positioned in property-casualty and health insurance. In China, ERGO China Life – a joint venture with the state-owned financial investor SSAIH – is tapping into the potential of the major provinces of Shandong, Jiangsu and Hebei.

Our brands

Munich Re Group

Munich RE

Reinsurance	
Munich RE	
The Hartford Steam Boiler Inspection and Insurance Company	HSB
New Reinsurance Company Ltd.	new/re
American Modern Insurance Group, Inc.	American MODERN
Digital Partners	DIGITAL PARTNERS
Bell & Clements Ltd.	Bell&Clements
Groves, John & Westrup Ltd.	GrovesJohnWestrup
MedNet Holding GmbH	mednet
NMU Speciality Ltd.	nmu
Relayr Inc.	relayr.

ERGO	
ERGO	
German and international insurance companies	ERGO
German and international travel insurance companies	ERGO Reiseversicherung
German and international health insurance companies	DKV
D.A.S. Rechtsschutzversicherung International	DAS
Nexible	nexible

Asset management

MEAG MUNICH ERGO AssetManagement GmbH

The detailed breakdown of participations can be seen in the list of shareholdings in the Notes to the consolidated financial statements. Already in 2019, ERGO brought ERGO Direkt, ERGO Vorsorge and D.A.S. Rechtsschutz under the ERGO brand in the German market. In addition, steps were taken to bring ERV under the ERGO brand. The process of bringing ERV under the ERGO brand at international level will be completed in 2023.

Remuneration report

The remuneration report describes the structure of the remuneration system for the Board of Management and Supervisory Board in the past financial year, and contains detailed information on the individual remuneration of the members of the Board of Management and Supervisory Board. The remuneration system for the Board of Management has been adjusted, effective 1 January 2021. This adjusted system will be submitted to the 2021 Annual General Meeting for approval.

Remuneration of the members of the Board of Management in 2020

The Supervisory Board decides on the remuneration system for the Board of Management. More specifically, the Supervisory Board's Remuneration Committee supports the full Supervisory Board and prepares resolutions for the Supervisory Board to discuss in detail and adopt. The Remuneration Committee comprises two shareholder representatives, both of whom are independent, and one employee representative. External remuneration consultants are not engaged.

The remuneration system in 2020 met the relevant company and supervisory law requirements, including those of the German Corporate Governance Code.

Remuneration comprises fixed (non-performance-related) and variable (performance-related) components, as well as benefits in connection with a company pension scheme. Details are included in the following table:

Structure of the remuneration system for the members of the Board of Management

Component	Share[1]	Assessment basis/ Parameters	Corridor	Performance evaluation	
Basic remuneration plus remuneration in kind/fringe benefits	**50%**	Function, responsibility, length of service on Board	Fixed		
Variable remuneration	**50%**	Corporate performance, result of divisional unit, personal performance			
30% annual bonus (for 100% performance evaluation) **Bonus scheme spanning one calendar year**		IFRS consolidated result	Linear scaling **0–200%** (fully achieved = 100%)	Achievement of annual objective	Evaluation of overall performance: Adjustment of achievement figures by the Supervisory Board, taking into account
70% multi-year bonus (for 100% performance evaluation) **Bonus scheme spanning five calendar years**		Total shareholder return (TSR) of Munich Re shares compared with a defined peer group (Peer group: Allianz, AXA, Generali, Hannover Re, SCOR, Swiss Re, Zurich Insurance Group)	Linear scaling[2]: **0–200%** 0% = lowest TSR value in the peer group comparison 200% = highest TSR value in the peer group comparison	Performance of Munich Re shares compared with peer group	– individual and collective management performance – financial situation, performance and future prospects of the Company Loading/reduction of up to 20 percentage points
Pension					
Defined contribution plan		Target overall direct remuneration[3]	Pension contribution	> Retirement > Insured event > Premature termination	

1 For the variable remuneration, the share shown presupposes 100% performance evaluation.
2 In light of the fact that the peer group is very small – with just seven companies (main competitors) – and comprises both primary and reinsurance companies, there are no further performance hurdles or thresholds. Moreover, to ensure sound and effective risk management, members of the Board of Management should not be encouraged to take excessive risks in an endeavour to achieve higher bonuses. The bonus amount must adequately reflect the performance of Munich Re shares compared with that of the peer group.
3 Target overall direct remuneration comprises basic remuneration plus variable remuneration based on 100% performance evaluation.

Basic remuneration and variable remuneration, split into equal shares of 50% each, provide for a balanced composition of overall remuneration as stipulated in the Solvency II regulations. This means that the fixed component represents a sufficiently high proportion of the total remuneration and enables the undertaking to apply a flexible bonus policy, including the possibility of paying no variable remuneration at all. There is consequently no incentive for members of the Board of Management to engage in excessive risk-taking in order to achieve higher bonuses.

Fixed remuneration

Fixed remuneration comprises basic remuneration plus remuneration in kind and fringe benefits (such as company cars and insurance policies). The salary tax on the remuneration in kind and fringe benefits is borne by Munich Re.

Variable remuneration

Assessment bases and link to corporate strategy

Variable remuneration comprises an annual and a multi-year component, both of which are related to the future.

The exact target for the IFRS consolidated result used for the annual bonus, and the respective figures for a 0% and 200% achievement of objectives (linear scaling) are communicated externally. The target cannot be adjusted retroactively. After the assessment period has ended, the IFRS consolidated result achieved and the corresponding achievement of objectives are also disclosed.

As regards the total shareholder return (TSR) of Munich Re's shares used for the multi-year bonus, which is measured in relative terms in comparison with the peer group, the specific values for assessing the achievement of objectives will not be available until the end of the scheme. The lowest TSR figure in the peer group comparison is taken as 0% on the linear scaling, and the highest figure as 200%. After assessing the achievement of objectives, this too will be communicated together with the comparable values for the peer group. This ensures comprehensive transparency regarding the financial objectives.

As only one financial indicator each is used in the annual and multi-year bonus, the variable remuneration component is easier to understand. The IFRS consolidated result and TSR on Munich Re's shares in comparison with the peer group are two strategically relevant key indicators that form the basis of the variable remuneration. Both indicators can be influenced by the Board of Management.

Munich Re's business strategy is geared to profitable growth and successful positioning among our competitors. As an established result aggregate and relevant key figure for the capital market, the IFRS consolidated result takes account of the significance of high and stable earnings power in the annual variable remuneration component. The target for the IFRS consolidated result is based on annual planning figures, which in turn reflect Munich Re's strategic ambition.

Based on its long-term strategic orientation and economic management of the Group, Munich Re would like to sustainably create value for its shareholders in the form of TSR. TSR takes account of dividend payments as well as share price performance. A multi-year component based on an increase in TSR in comparison with our peer group makes up the largest portion of variable remuneration for the Board of Management. From Munich Re's point of view, the relative TSR is well suited for bringing in line the interests of shareholders and of the members of the Board of Management. The TSR over a period of several years reflects Munich Re's long-term performance not only in absolute terms, but also in relative terms. After all, above-average TSR development in comparison with the peer group is not conceivable in the long term without sustainably generating good results and creating value for shareholders. Surpassing the performance of the peer group is in the interests of shareholders – even in a weak market environment.

As soon as the information on the achievement of objectives is available, as part of the overall performance evaluation the Supervisory Board can take into consideration both in the annual and multi-year bonus the performance of the individual members of the Board of Management and the Board of Management as a whole, along with Munich Re's financial situation, performance and future prospects. This is done by means of loadings or reductions of up to 20 percentage points on the relevant objective achieved.

In evaluating overall performance, in particular financial and non-financial criteria for the individual member's performance and the performance of the respective divisional unit/division and the field of business need to be taken into consideration. Other aspects, such as those relating to periods prior to the appraisal period in question, may also be taken into account. For this purpose, the Supervisory Board has compiled a set of criteria with the following examples of bonus-malus aspects:

Annual and multi-year bonus: Criteria for the evaluation of overall performance[1]

Individual management performance	– Result of division/divisional unit, contribution to overall performance – Personal performance (qualitative and/or quantitative) – ESG (environmental, social and governance) criteria – Employee satisfaction – Consideration of special market circumstances or unexpected developments – Implementation of strategy, improvements in organisation and processes, innovation – Conduct (leadership, role model function, adherence to guidelines/compliance requirements, cooperation with colleagues and Supervisory Board)
Collective management performance	– Result of field of business (reinsurance and/or primary insurance) – ESG (environmental, social and governance) criteria – Employee satisfaction – Reaction to special market circumstances and unforeseeable developments
Financial situation, performance and future prospects of the Company	– Financial situation of the Company – Short-term and long-term profit prospects – Market environment (interest rates, situation in the industry, etc.)

1 Further key aspects may also be taken into consideration.

Transparency is provided with regard to whether and for what specific reason loadings or reductions were applied, and what they amounted to.

The evaluation of overall performance can also take into account factors that influence business development but are not reflected in the IFRS consolidated result and TSR. Therefore, in light of the aim of keeping the remuneration system simple and transparent, no further financial assessment bases are needed.

Targets/Achievement of objective for the annual bonus

The aim of the annual bonus is to achieve a high IFRS consolidated result. The chosen targets are challenging for the members of the Board of Management given the prevailing low-interest-rate policies and fierce competition in the insurance markets.

Targets for 2020

A target of €2,800m was set for 2020, with the following linear scaling for the 0–200 % target corridor:

€2,100m = 0% achievement of objective
€2,800m = 100% achievement of objective
€3,500m = 200% achievement of objective

Achievement of objectives in 2020

At its meeting in March 2021, the Supervisory Board will decide about the achievement of objectives in 2020 on the basis of the IFRS consolidated result and taking into account any loadings or reductions as part of the overall performance evaluation. As the editorial deadline for the Annual Report precedes the Supervisory Board meeting, this information cannot be definitively included in the remuneration report. However, it is likely that the 2020 annual bonus will amount to 0% as a result of the coronavirus pandemic. The definitive information will be made available at www.munichre.com/board-of-management/remuneration-report on 17 March 2021.

Targets for 2021

The same target of €2,800m has been set for 2021, with the following scaling for the 0–200% target corridor:

€1,800m = 0% achievement of objective
€2,800m = 100% achievement of objective
€3,300m = 200% achievement of objective

Targets/Achievement of objective for the multi-year bonus

The objective of the multi-year bonus is the sustainable performance of Munich Re's shares in terms of TSR in comparison with a defined group of competitors. The companies in this group were selected based on comparable business activities and size. Furthermore, they must be listed on the stock exchange and subject to similar accounting standards as Munich Re, which is why the peer group only includes European primary insurance and reinsurance companies. The peer group currently comprises Allianz, AXA, Generali, Hannover Re, SCOR, Swiss Re and Zurich Insurance Group. It is the same peer group as for the analysts' conference.

The multi-year bonus spans five calendar years. In the first calendar year, the initial TSR value is established, and at the end of the fifth calendar year, the final TSR value is calculated. The values are compared in order to determine achievement of the objectives, and are calculated as annual average values. The calculations are based on reporting date figures.

The Supervisory Board set a target corridor of 0–200% with the following linear scaling:

Lowest TSR
in peer group = 0% achievement of objective
Highest TSR
in peer group = 200% achievement of objective

Because the specific figures for assessing the achievement of objectives will not be available until the end of the scheme, they will be published alongside the target assessment.

Deferral

The term, structure, and time horizon of the deferred multi-year bonus reflect essential characteristics of the Company's business activities. The TSR in the multi-year bonus fully reflects the sustainable and long-term performance of Munich Re's shares, so that a further multi-year deferral period – which in turn is geared to share price performance – is neither expedient nor necessary. In the case of the annual bonus, a deferral period does not offer any significant added value either, as the annual bonus constitutes only a rather small percentage of overall remuneration.

Limit to variable remuneration (malus) and clawback

Given that the Supervisory Board can take into account a loading or reduction of up to 20 percentage points on both the annual bonus and the multi-year bonus in order to reflect the achievements of the individual members of the Board of Management and the Board of Management as a whole, it has the option of reducing variable remuneration in the case of negative result contributions.

According to the employment contracts for members of the Board of Management appointed for the first time after 1 January 2017, with effect from 2020 all unpaid variable remuneration components are forfeited in the event of termination of a Board member's contract by the Company for good cause or in the event of relinquishment by a Board member of their appointment to the Board of Management without good cause.

In addition, all employment contracts of the members of the Board of Management provide for the right of the Company to implement any requirements by the supervisory authority to limit, cancel or not pay out variable remuneration in relation to the member of the Board of Management.

The employment contracts of the members of the Board of Management furthermore stipulate that Board of Management members are obliged to indemnify the Company if they fail to comply with their duty to exercise due care and diligence as prudent and conscientious members of the Board of Management (Section 93 of the German Stock Corporation Act [AktG]). The Supervisory Board has the option of demanding such compensation following a breach of duty. As a consequence, bonus payments, including those already made, can be partially or entirely offset.

Upper remuneration limits

The respective 0–200% target corridor defines an upper limit for variable remuneration paid to members of the Board of Management. Any higher achievement of objectives is capped at 200%; in this case, there is therefore also no loading as a result of the overall performance evaluation. There are caps on the maximum amounts of total remuneration and on each variable component in accordance with the German Corporate Governance Code.

Share ownership of the members of the Board of Management

The remuneration system in 2020 did not require members of the Board of Management to invest in Company shares. All the same, most of the members of the Board of Management active in 2020 held a large number of Company shares.

Share ownership of the members of the Board of Management

Members of the Board of Management	Number of shares on 30.12.2020[1]	XETRA closing price on 30.12.2020[1]	Total value of shares on 30.12.2020[1]	Total value of shares in % of basic remuneration for 2020[2]
		€	€	%
Joachim Wenning	16,108	242.80	3,911,022.40	168
Thomas Blunck	5,052	242.80	1,226,625.60	109
Nicholas Gartside	1,525	242.80	370,270.00	33
Doris Höpke	4,318	242.80	1,048,410.40	93
Torsten Jeworrek	4,654	242.80	1,129,991.20	70
Christoph Jurecka	7,011	242.80	1,702,270.80	113
Achim Kassow (since 1 May 2020)	1,455	242.80	353,274.00	31
Markus Rieß[3]	7,500	242.80	1,821,000.00	66
Peter Röder[4] (until 31 December 2020)	5,964	242.80	1,448,059.20	129

1 Last trading day in 2020.
2 The percentage of shares relates to the full annual basic remuneration.
3 As regards the overall value of the shares in relation to basic remuneration, the basic remuneration that Markus Rieß received for his work at ERGO Group AG was also taken into consideration.
4 In the case of shares held by Peter Röder that are still subject to minimum holding periods, these periods remain in effect unchanged despite his retirement

Other

Continued payment of remuneration in the case of incapacity to work

In the case of temporary incapacity to work due to illness or for another cause beyond the Board member's control, the remuneration is paid until the end of the contract of employment. The Company may terminate the contract prematurely if Board members are incapacitated for a period of longer than 12 months and it is probable that they will be permanently unable to fully perform the duties conferred on them (permanent incapacity to work).

No guaranteed variable remuneration (sign-on bonuses/recruitment bonuses)

As a matter of principle, the Company does not pay guaranteed variable remuneration to members of the Board of Management. We only pay sign-on/recruitment bonuses in exceptional cases and on production of corresponding evidence if a new member of the Board of Management forfeits a bonus by a previous employer. Compensation for forfeiting variable remuneration components paid by a previous employer is paid in several instalments and is tied to prerequisites for disbursement.

Severance cap and change of control

Members who joined the Board of Management before 2017 have no contractual right to severance payments. If one of these Board members' employment contracts is terminated prematurely by the Company without good cause, any payments to be agreed may exceed neither the equivalent of two years' total remuneration nor the remaining term of the employment contract, if the latter is shorter. If the employment contract is terminated for good cause on grounds that are within the Board member's control, no payments are made to the Board member. The calculation of any payment is based on the overall remuneration for the past financial year and, if necessary, on the probable overall remuneration for the current financial year.

If the contract of a member who has joined the Board of Management since 1 January 2017 is terminated prematurely by the Company without good cause, the member has a contractual right to a severance payment. Such payments are equivalent to two years' total remuneration, but are restricted by the remaining term of the Board member's contract if this term is shorter. Annual remuneration is calculated on the basis of fixed annual remuneration and variable remuneration paid out for the prior full financial year before the contract was terminated; remuneration in kind, other fringe benefits and contributions to occupational retirement schemes are not taken into account. Payments received by a Board member during a period of notice after termination of the appointment are offset against any severance payment. There will be no right to severance payments in the event of extraordinary termination of the Board member's contract by the Company for good cause.

As a matter of principle, the Company ensures that severance payments are related to performance achieved over the whole period of activity.

Contractual obligations for benefits triggered by a change of control will not be granted.

Stock option plans

No stock option plans or similar incentive schemes are in place for the Board of Management.

Remuneration for other board memberships

In the case of seats held on other boards, remuneration for board memberships must be paid over to the Company. Exempted from this is remuneration for memberships explicitly classified by the Supervisory Board as private.

External consultants

Munich Re does not engage external consultants to draft or implement remuneration systems for the Board of Management.

Pensions

Through the end of 2008, the members of the Board of Management had a defined benefit plan. In 2009, a defined contribution plan was introduced for new Board of Management members.

For defined contribution plans, the Company provides a pension contribution for each calendar year (contribution year) during the term of the employment contract. It uniformly amounts to 25.5% of the target overall direct remuneration (= basic remuneration + variable remuneration on the basis of 100% achievement of objectives). The amount of the pension contribution takes into consideration the peer group (including DAX 30 companies) and the pension contributions for the employee groups below the level of the Board of Management. The pension contributions for the members of the Board of Management are paid over to an external pension insurer. The insurance benefits that result from the contribution payments constitute the Company's pension commitment to the Board member.

Board members appointed before 2009 were transferred to the defined contribution plan. They kept their pension entitlement from the defined benefit plan (fixed amount in euros) existing at the date of transfer, which was maintained as a vested pension. For their service years as of 1 January 2009, they receive an incremental pension benefit based on the defined contribution plan.

The Supervisory Board determines the relevant target pension level for pension commitments from defined benefit plans and defined contribution plans – also considering length of service on the Board – and takes account of the resultant annual and long-term cost for the Company.

In addition, members of the Board of Management appointed before 2019 benefit from the Munich Re pension scheme, which is also a defined contribution plan.

Greater benefits at beginning of retirement

Some Board of Management members have special contractual agreements which stipulate that they will receive a special payment, equal to their most recent monthly basic remuneration, for six months after retiring or three months after departing Munich Re – provided that, upon termination of employment, they are entitled to an old-age pension, a disability pension or a reduced occupational pension on early retirement.

Occupational pension

Board members appointed before 2012 are entitled to an occupational pension on retiring from active service with the Company after reaching the age of 60. Board members appointed since April 2012 are entitled to an occupational pension on retiring from active service with the Company after reaching the age of 62. All members of the Board of Management must retire from active service no later than at the end of the calendar year in which they turn 67.

Benefit:
- In the case of defined contribution plans: Annuity based on the policy reserve or payment of the policy reserve as a lump sum.
- In the case of a combination of defined benefit plans and defined contribution plans: Vested pension from the defined benefit plan and annuity from the policy reserve under the defined contribution plan or payment of a lump sum.

Disability pension

Disability in this respect means that the member of the Board of Management is likely to be unable, or has already been unable, to exercise his or her position for six months without interruption, as a result of illness, injury, or infirmity beyond what is normal for his or her age. The entitlement to a disability pension does not arise until expiry of remuneration payment obligations or continuation of remuneration payment obligations after a mutual agreement to terminate the employment contract, as a result of non-extension or revocation of their appointment to the Board or where the contract of employment has been terminated by the Company due to permanent incapacity.

Benefit:
- In the case of defined contribution plans: 80% of the insured occupational pension up to the age of 59 or 61, with subsequent occupational pension.
- In the case of a combination of defined benefit plans and defined contribution plans: Vested pension from the defined benefit plan and 80% of the insured occupational pension benefit up to age 59, with subsequent occupational pension based on the defined contribution plan.

Reduced occupational pension on early retirement

Members who joined the Board of Management before 2017 are entitled to a reduced occupational pension on early retirement if the contract of employment is terminated as a result of non-extension or revocation of their appointment without the Board members having given cause for this through a gross violation of their duties or having requested it. This applies where the Board members have already passed the age of 50, have been in the employment of the Company for more than ten years when the contract terminates, and have had their appointment to the Board of Management extended at least once.

Benefit:
- In the case of defined contribution plans: Annuity based on the policy reserve or payment of the policy reserve as a lump sum at the date the pension benefit is claimed.
- In the case of a combination of defined benefit plans and defined contribution plans: Entitlement of between 30% and 60% of pensionable basic remuneration, reduced by 2% for each year or part thereof short of the Board member's 65th birthday; the Company assumes payment of the difference between the monthly occupational pension and the monthly incremental pension from the external insurance.

Members who have joined the Board of Management since 1 January 2017 are not entitled to a reduced occupational pension on early retirement.

Vested benefits for occupational pension, disability pension and surviving dependants

Vested benefits are paid upon the Board member reaching the age of 60 or 62, in the case of disability, or in the event of the Board member's death.

Vested benefits under the German Company Pension Act (BetrAVG):

Board members are entitled to vested benefits under the German Company Pension Act if they leave the Company before reaching the age of 60 or 62 and the pension commitment has existed for at least three years (from 2021; previously five years) at the time of departure.

Benefit:
- In the case of defined contribution plans: Annuity based on the policy reserve or payment of the policy reserve as a lump sum at the date the insured event occurs.
- In the case of a combination of defined benefit plans and defined contribution plans: The entitlement under the vested pension is a proportion of the vested pension based on the ratio of actual service with the Company to the period the Board member would have worked for the Company altogether up to the fixed retirement age (m/n-tel process, Section 2(1) of the Company Pension Act). The entitlement from the incremental pension comprises the pension benefits fully financed under the insurance contract up to the occurrence of the insured event based on the pension contributions made up to the date of leaving the Company – (Section 2(5) of the Company Pension Act). This entitlement is paid out as an annuity or a lump sum.

Provision for surviving dependants

In the event of the death of a Board member during active service, the surviving dependants continue to receive the previous monthly basic remuneration for a period of six months if the deceased joined the Board of Management before 2006. In the case of Board members appointed between 2006 and 2018, the previous monthly basic remuneration is paid to the beneficiaries for a period of three months. If the Board member's death occurs after retirement, the surviving dependants of members of the Board of Management who were appointed before 2018 will receive the previous monthly occupational pension for a period of three months, provided that the Board member's marriage or registration of civil partnership had taken place and/or the member's child(ren) had been born before the Board member started drawing the occupational pension.

Surviving spouses and registered civil partners normally receive a pension amounting to 60% of the defined benefit or insured occupational pension; single orphans receive 20% and double orphans 40%. The total amount may not exceed the occupational pension of the Board member. If the Board member's occupational pension was reduced owing to early retirement, benefits for surviving dependants are based on the reduced occupational pension.

Total remuneration of the Board of Management

Amount of remuneration

The level of the target overall direct remuneration for the individual members of the Board of Management was set by the full Supervisory Board, acting on recommendations from the Supervisory Board's Remuneration Committee, and taking into account the responsibilities and performance of each member of the Board of Management, the performance of the full Board of Management and the situation, performance and future prospects of Munich Re.

As part of horizontal and vertical benchmarking, remuneration was first assessed as to whether it is customary and appropriate compared with remuneration at other market players and within Munich Re. As a rule, remuneration data of DAX 30 companies derived from an annual study is used to assess whether remuneration is customary in the market. When making comparisons, the Supervisory Board pays particular attention to market capitalisation. In the course of assessing how customary remuneration is within Munich Re, the Supervisory Board considers the remuneration over time of Board of Management members in overall relation to the remuneration of both senior managers and staff members.

Pay ratios

In the reporting year, the target overall direct remuneration of the Chairman of the Board of Management was 39 (37) times the average target overall direct remuneration of all Company employees (excluding the Board of Management). The average target overall direct remuneration of all members of the Board of Management was 24 (22) times the average target overall direct remuneration of all employees (excluding the Board of Management).

Disclosure of Board of Management remuneration

Board of Management remuneration is disclosed under two different sets of rules, namely German Accounting Standard No. 17 (DRS 17, revised 2010) and the German Corporate Governance Code. There are therefore deviations in individual remuneration components and total remuneration.

Board of Management remuneration under DRS 17

Under DRS 17, remuneration for the 2020 annual bonus is shown as the provisions set aside for that purpose taking into account any additional/reduced expenditure for the previous year, since the performance on which the remuneration is based has been completed as at the balance sheet date and the requisite resolution is already foreseeable. Under DRS 17, remuneration for multi-year performance 2017–2019 is recognised in the year of payment, i.e. in 2020.

Fixed and variable remuneration components

The serving members of Munich Reinsurance Company's Board of Management in 2020 received remuneration totalling €22.8m (23.8m) for fulfilment of their duties in respect of the parent company and its subsidiaries in the financial year. Their remuneration thus decreased by around €1m compared with the previous year's figure. This decline in total remuneration is due in particular to the likelihood that no annual bonus will be paid out for 2020 as a result of the coronavirus pandemic. This amount, which will not be paid out, exceeds the payments for basic remuneration that were higher than in the previous year, the 2017–2019 multi-year performance bonus, and compensation payments made instead of an employer-financed pension. Total remuneration received by the individual members of the Board of Management is shown in the table below.

**Remuneration of individual Board members as per DRS 17 (revised 2010)
(in accordance with Section 285 sentence 1 (9a) sentences 5–8 of the German Commercial Code (HGB) and Section 314(1) (6a) sentences 5–8 HGB)[1]**

Name	Financial year	Basic remuner-ation	Remuner-ation in kind/fringe benefits	Annual bonus[2]	Multi-year perform-ance[3, 4]	Other	Total
		€	€	€	€	€	€
Joachim Wenning	**2020**	**2,325,000**	**37,149**	**0**	**1,604,423**		**3,966,572**
	2019	2,225,000	40,963	867,750	773,465		3,907,178
Thomas Blunck	**2020**	**1,125,000**	**32,093**	**0**	**863,870**		**2,020,963**
	2019	1,075,000	33,913	419,250	793,555		2,321,718
Nicholas Gartside (since 18 March 2019)[5]	**2020**	**1,125,000**	**22,625**	**0**		**573,750**	**1,721,375**
	2019	848,909	19,478	331,075		411,188	1,610,650
Doris Höpke	**2020**	**1,125,000**	**26,919**	**0**	**823,690**		**1,975,609**
	2019	1,075,000	31,532	419,250	879,305		2,405,087
Torsten Jeworrek	**2020**	**1,625,000**	**39,029**	**0**	**1,185,310**		**2,849,339**
	2019	1,550,000	38,286	604,500	1,098,580		3,291,366
Christoph Jurecka	**2020**	**1,500,000**	**24,240**	**0**			**1,524,240**
	2019	1,300,000	30,041	507,000			1,837,041
Achim Kassow (since 1 May 2020)[6]	**2020**	**750,000**	**46,036**	**0**		**382,500**	**1,178,536**
	2019						
Hermann Pohlchristoph (until 30 April 2020)	**2020**	**358,333**	**15,185**	**0**	**507,640**		**881,158**
	2019	1,075,000	48,370	419,250			1,542,620
Markus Rieß[7]	**2020**	**2,750,000**	**116,944**	**0**	**1,801,166**		**4,668,110**
Thereof for Munich Reinsurance Company		500,000	36,654	0	700,088		1,236,742
	2019	2,675,000	119,459	165,750	1,666,785		4,626,994
Thereof for Munich Reinsurance Company		425,000	23,888	165,750	667,013		1,281,651
Peter Röder (until 31 December 2020)	**2020**	**1,125,000**	**35,060**	**0**	**823,690**		**1,983,750**
	2019	1,075,000	30,446	419,250	763,420		2,288,116
Total	2020	13,808,333	395,280	0	7,609,789	956,250	22,769,652
	2019	12,898,909	392,488	4,153,075	5,975,110	411,188	23,830,770

1 Where necessary, amounts have been rounded to the nearest euro.
2 At the time of preparation of this report, no Supervisory Board resolution had yet been passed on the amounts to be paid for the 2020 annual bonus. The amounts shown for the annual bonus are based on estimates, i.e. the relevant provisions and any additional/reduced expenditure for the 2019 annual bonus. The amounts shown for the 2019 annual bonus comprise the respective provision for 2019 and any additional/reduced expenditure for the 2018 annual bonus. The bonus payments for 2019 can be seen in the remuneration tables "Remuneration paid in accordance with the German Corporate Governance Code".
3 The multi-year performance component paid annually through and including 2017 was geared to the success of the fields of business and personal performance of the members of the Board of Management, for which three-year objectives were agreed. In addition, the Supervisory Board assessed the overall performance of the Board of Management as a whole and the individual Board members, and it also took into account developments during the appraisal period that are beyond the influence of the Board. Payment was effected in the fourth year, with 25% of the net payout amount to be invested in Munich Reinsurance Company shares that must be held for at least a two-year period.
4 The amounts paid out in 2020 were for multi-year performance 2017–2019, those paid out in 2019 were for 2016–2018.
5 Other: Nicholas Gartside does not participate in an employer-financed pension. By way of compensation for this, a conditional one-off payment will be made at the end of his appointment. In the event of his death or disability prior to the end of his term of office, this payment was approved, to be made pro rata temporis for the period until then.
6 Other: Achim Kassow does not participate in an employer-financed pension. By way of compensation for this, a conditional monthly payment was made along with other remuneration.
7 The compensation components that Markus Rieß received for his work at ERGO Group AG are included in the remuneration.

The variable remuneration amounts payable are listed in the table below.

Amounts payable for variable remuneration of the individual Board members in the event of 100% performance evaluation as per DRS 17 (revised 2010), corridor 0–200%[1]

Name	Set in	for	Annual bonus[2, 4] €	Multi-year bonus[3, 4] €	Total amounts payable €
Joachim Wenning	**2020**	**2021**	**697,500**	**1,627,500**	**2,325,000**
	2019	2020	697,500	1,627,500	2,325,000
Thomas Blunck	**2020**	**2021**	**337,500**	**787,500**	**1,125,000**
	2019	2020	337,500	787,500	1,125,000
Nicholas Gartside (since 18 March 2019)[5]	**2020**	**2021**	**423,563**	**988,313**	**1,411,876**
	2019	2020	337,500	787,500	1,125,000
Doris Höpke	**2020**	**2021**	**337,500**	**787,500**	**1,125,000**
	2019	2020	337,500	787,500	1,125,000
Torsten Jeworrek	**2020**	**2021**	**487,500**	**1,137,500**	**1,625,000**
	2019	2020	487,500	1,137,500	1,625,000
Christoph Jurecka	**2020**	**2021**	**487,500**	**1,137,500**	**1,625,000**
	2019	2020	450,000	1,050,000	1,500,000
Achim Kassow (since 1 May 2020)[5]	**2020**	**2021**	**423,563**	**988,313**	**1,411,876**
	2019	2020	225,000	525,000	750,000
Hermann Pohlchristoph (until 30 April 2020)	**2020**	**2021**			
	2019	2020	107,500	250,833	358,333
Markus Rieß[6]	**2020**	**2021**	**138,750**	**323,750**	**462,500**
	2019	2020	150,000	350,000	500,000
Peter Röder (until 31 December 2020)	**2020**	**2021**			
	2019	2020	337,500	787,500	1,125,000
Total	2020	2021	3,333,376	7,777,876	11,111,252
	2019	2020	3,467,500	8,090,833	11,558,333

1 Where necessary, amounts have been rounded to the nearest euro.
2 The remuneration set for the annual bonus for 2020 is payable in 2021, that for 2021 in 2022.
3 The remuneration set for the multi-year bonus for 2020 is payable in 2024, that for 2021 in 2025.
4 Information on the assessment bases and targets for the amounts set for 2020 and 2021 is provided under Remuneration of the members of the Board of Management in 2020 at the beginning of the remuneration report.
5 In the cases of Nicholas Gartside and Achim Kassow, the compensation payments made instead of participation in the employer-financed pension will be allocated, from the 2021 financial year, to the remuneration components – resulting in higher annual bonuses and higher multi-year bonuses compared with 2020.
6 The ERGO Group AG remuneration system does not provide for a variable component. Markus Rieß thus only receives variable target amounts from Munich Reinsurance Company.

Pension entitlements

Personnel expenses of €5.6m (5.7m) were incurred in the financial year to finance the pension entitlements for members of the Board of Management active in 2020. Of this, €0.6m was apportionable to defined benefit plans and around €5.0m to defined contribution plans. As a consequence of the risk transfer to an external pension insurer under the defined contribution system, the visible pension costs since 2009 are noticeably higher. The Company accepts this increase in order to avoid higher costs in future and to eliminate long-term pension-specific risks. The following defined benefits, present values, contribution rates and personnel expenses result for the individual members of the Board of Management:

Pension entitlements[1]

		Defined benefit plan		
Name	Financial year	Defined benefit[2]	Present value of defined benefit as at 31 December	Provisions for personnel expenses[3]
		€/year	€	€
Joachim Wenning[4, 5]	**2020**	**–**	**18,303**	**1,517**
	2019	–	18,173	1,643
Thomas Blunck[4, 5]	**2020**	**120,000**	**5,267,574**	**209,529**
	2019	120,000	4,424,945	211,946
Nicholas Gartside (since 18 March 2019)[6]	**2020**	**–**	**–**	**–**
	2019	–	–	–
Doris Höpke[4, 5]	**2020**	**–**	**12,310**	**606**
	2019	–	12,532	592
Torsten Jeworrek[4, 7]	**2020**	**171,000**	**8,479,895**	**242,454**
	2019	171,000	7,316,522	249,534
Christoph Jurecka[4, 8]	**2020**	**–**	**–**	**–**
	2019	–	–	–
Achim Kassow (since 1 May 2020)[9]	**2020**	**–**	**–**	**–**
	2019	–	–	–
Hermann Pohlchristoph (until 30 April 2020)[10]	**2020**	**–**	**–**	**–**
	2019	–	5,394	324
Markus Rieß[4, 8]	**2020**	**–**	**70,654**	**13,296**
Thereof for Munich Reinsurance Company		**–**	**70,654**	**13,296**
	2019	–	57,772	11,842
Thereof for Munich Reinsurance Company		–	57,772	11,842
Peter Röder (until 31 December 2020)[11]	**2020**	**90,000**	**4,667,954**	**115,947**
	2019	90,000	3,569,324	119,178
Total	2020	381,000	18,516,690	583,349
	2019	381,000	15,404,662	595,059

See the end of the table for footnotes.

Pension entitlements[1]

Name	Financial year	Pension contribution rate for target overall direct remuneration	Entitlement as at 31 December	Present value of entitlement as at 31 December	Personnel expenses
				Defined contribution plan	
		%	€/year	€	€
Joachim Wenning[4, 5]	**2020**	**25.50**	**279,263**	**–**[12]	**1,185,750**
	2019	25.50	239,933	–[12]	1,134,750
Thomas Blunck[4, 5]	**2020**	**16.25**	**166,304**	**9,103,864**	**365,625**
	2019	16.25	151,726	7,079,079	349,375
Nicholas Gartside (since 18 March 2019)[6]	**2020**	**–**	**–**	**–**	**–**
	2019	–	–	–	–
Doris Höpke[4, 5]	**2020**	**25.50**	**113,639**	**–**[12]	**573,750**
	2019	25.50	94,836	–[12]	548,250
Torsten Jeworrek[4, 7]	**2020**	**19.50**	**277,391**	**14,744,605**	**633,750**
	2019	19.50	253,325	11,820,896	604,500
Christoph Jurecka[4, 8]	**2020**	**25.50**	**36,004**	**–**[12]	**765,000**
	2019	25.50	16,730	–[12]	663,000
Achim Kassow (since 1 May 2020)[9]	**2020**	**–**	**–**	**–**	**–**
	2019	–	–	–	–
Hermann Pohlchristoph (until 30 April 2020)[10]	**2020**	**25.50**	**39,761**	**–**[12]	**182,750**
	2019	25.50	35,165	–[12]	548,250
Markus Rieß[4, 8]	**2020**	**25.15**	**116,236**	**3,167,746**[13]	**817,500**
Thereof for Munich Reinsurance Company		25.50	40,319	–[12]	255,000
	2019	25.14	92,977	2,272,938[13]	779,250
Thereof for Munich Reinsurance Company		25.50	33,351	–[12]	216,750
Peter Röder (until 31 December 2020)[11]	**2020**	**20.25**	**212,765**	**9,767,109**	**455,625**
	2019	20.25	176,860	7,936,905	435,375
Total	2020		1,241,363	36,783,324	4,979,750
	2019		1,061,552	29,109,818	5,062,750

1 Where necessary, amounts have been rounded to the nearest euro.
2 In the case of Board members transferred from the old system to the new, the amount corresponds to the value of the annual vested pension at 31 December 2008.
3 Expenses for defined benefit plan, including provision for continued payment of salary for surviving dependants.
4 Entitled to occupational pension in the event of termination of employment owing to incapacity to work.
5 Entitled to a reduced occupational pension on early retirement in the event of premature or regular termination of employment.
6 Nicholas Gartside does not participate in an employer-financed pension. By way of compensation for this, a conditional one-off payment will be made at the end of his appointment. In the event of his death or disability prior to the end of his term of office, this payment will be made pro rata temporis for the period until then.
7 Entitled to a reduced occupational pension on early retirement in the event of premature termination of employment, and to an occupational pension in the event of regular termination of employment.
8 Entitled to vested benefits under the Company Pension Act in the event of premature or regular termination of employment.
9 Achim Kassow does not participate in an employer-financed pension. By way of compensation for this, an annual payment amounting to 25.5% of the target overall direct remuneration was approved, payable in monthly instalments. In the event of his death or disability prior to the end of his term of office, this payment will be made pro rata temporis for the period until then.
10 Left the Board as at 30 April 2020; entitled to an occupational pension from 1 December 2027.
11 Left the Board as at 31 December 2020; has received a pension since 1 January 2021.
12 Defined contribution plan within the meaning of IAS 19: Employee Benefits, so no present value shown.
13 Munich Reinsurance Company: see footnote 12; ERGO Group AG: no Defined Contribution Plan within the meaning of IAS 19, so present value shown.

Board of Management remuneration under the German Corporate Governance Code

As required by the provisions of the German Corporate Governance Code, the following tables show the benefits granted and remuneration paid out to individual members of the Board of Management in the year under review.

The basic remuneration, remuneration in kind/fringe benefits and pension expenses (sum of personnel expenses for defined benefit plans and defined contribution plans) are in accordance with German Accounting Standard No. 17 (DRS 17). There are some deviations with regard to the variable annual and multi-year remuneration components.

The following tables show the benefits granted and the remuneration paid out in accordance with the German Corporate Governance Code:

Benefits granted in accordance with the German Corporate Governance Code[1]

	Joachim Wenning				Thomas Blunck			
	Chairman of the Board of Management				Board member			
€	2020	2020 (min)	2020 (max)	2019	2020	2020 (min)	2020 (max)	2019
Basic remuneration	2,325,000	2,325,000	2,325,000	2,225,000	1,125,000	1,125,000	1,125,000	1,075,000
Remuneration in kind/fringe benefits	37,149	37,149	37,149	40,963	32,093	32,093	32,093	33,913
Total	**2,362,149**	**2,362,149**	**2,362,149**	**2,265,963**	**1,157,093**	**1,157,093**	**1,157,093**	**1,108,913**
One-year variable remuneration								
Annual bonus 2019				667,500				322,500
Annual bonus 2020	697,500	0	1,395,000		337,500	0	675,000	
Multi-year variable remuneration								
Multi-year bonus 2019				1,557,500				752,500
Multi-year bonus 2020	1,627,500	0	3,255,000		787,500	0	1,575,000	
Other								
Total	**4,687,149**	**2,362,149**	**7,012,149**	**4,490,963**	**2,282,093**	**1,157,093**	**3,407,093**	**2,183,913**
Pension expenses	1,187,267	1,187,267	1,187,267	1,136,393	575,154	575,154	575,154	561,321
Total remuneration	5,874,416	3,549,416	8,199,416	5,627,356	2,857,247	1,732,247	3,982,247	2,745,234

→	Nicholas Gartside				Doris Höpke			
	Board member (since 18 March 2019)				Board member			
€	2020	2020 (min)	2020 (max)	2019	2020	2020 (min)	2020 (max)	2019
Basic remuneration	1,125,000	1,125,000	1,125,000	848,909	1,125,000	1,125,000	1,125,000	1,075,000
Remuneration in kind/fringe benefits	22,625	22,625	22,625	19,478	26,919	26,919	26,919	31,532
Total	**1,147,625**	**1,147,625**	**1,147,625**	**868,387**	**1,151,919**	**1,151,919**	**1,151,919**	**1,106,532**
One-year variable remuneration								
Annual bonus 2019				254,673				322,500
Annual bonus 2020	337,500	0	675,000		337,500	0	675,000	
Multi-year variable remuneration								
Multi-year bonus 2019				594,236				752,500
Multi-year bonus 2020	787,500	0	1,575,000		787,500	0	1,575,000	
Other[2]	573,750	573,750	573,750	411,188				
Total	**2,846,375**	**1,721,375**	**3,971,375**	**2,128,484**	**2,276,919**	**1,151,919**	**3,401,919**	**2,181,532**
Pension expenses					574,356	574,356	574,356	548,842
Total remuneration	2,846,375	1,721,375	3,971,375	2,128,484	2,851,275	1,726,275	3,976,275	2,730,374

→	Torsten Jeworrek				Christoph Jurecka			
	Board member				Board member			
€	2020	2020 (min)	2020 (max)	2019	2020	2020 (min)	2020 (max)	2019
Basic remuneration	1,625,000	1,625,000	1,625,000	1,550,000	1,500,000	1,500,000	1,500,000	1,300,000
Remuneration in kind/fringe benefits	39,029	39,029	39,029	38,286	24,240	24,240	24,240	30,041
Total	**1,664,029**	**1,664,029**	**1,664,029**	**1,588,286**	**1,524,240**	**1,524,240**	**1,524,240**	**1,330,041**
One-year variable remuneration								
Annual bonus 2019				465,000				390,000
Annual bonus 2020	487,500	0	975,000		450,000	0	900,000	
Multi-year variable remuneration								
Multi-year bonus 2019				1,085,000				910,000
Multi-year bonus 2020	1,137,500	0	2,275,000		1,050,000	0	2,100,000	
Other								
Total	**3,289,029**	**1,664,029**	**4,914,029**	**3,138,286**	**3,024,240**	**1,524,240**	**4,524,240**	**2,630,041**
Pension expenses	876,204	876,204	876,204	854,034	765,000	765,000	765,000	663,000
Total remuneration	4,165,233	2,540,233	5,790,233	3,992,320	3,789,240	2,289,240	5,289,240	3,293,041

See the end of the table for footnotes.

	Achim Kassow Board member (since 1 May 2020)				Hermann Pohlchristoph Board member (until 30 April 2020)			
€	2020	2020 (min)	2020 (max)	2019	2020	2020 (min)	2020 (max)	2019
Basic remuneration	750,000	750,000	750,000	-	358,333	358,333	358,333	1,075,000
Remuneration in kind/fringe benefits	46,036	46,036	46,036	-	15,185	15,185	15,185	48,370
Total	**796,036**	**796,036**	**796,036**	**-**	**373,518**	**373,518**	**373,518**	**1,123,370**
One-year variable remuneration								
Annual bonus 2019				-				322,500
Annual bonus 2020	225,000	0	450,000		107,500	0	215,000	
Multi-year variable remuneration								
Multi-year bonus 2019				-				752,500
Multi-year bonus 2020	525,000	0	1,050,000		250,833	0	501,667	
Other[3]	382,500	382,500	382,500					
Total	**1,928,536**	**1,178,536**	**2,678,536**	**-**	**731,851**	**373,518**	**1,090,185**	**2,198,370**
Pension expenses					182,750	182,750	182,750	548,574
Total remuneration	1,928,536	1,178,536	2,678,536	-	914,601	556,268	1,272,935	2,746,944

					Markus Rieß Board member			
	Total[4]				thereof for Munich Reinsurance Company			
€	2020	2020 (min)	2020 (max)	2019	2020	2020 (min)	2020 (max)	2019
Basic remuneration	2,750,000	2,750,000	2,750,000	2,675,000	500,000	500,000	500,000	425,000
Remuneration in kind/fringe benefits	116,944	116,944	116,944	119,459	36,654	36,654	36,654	23,888
Total	**2,866,944**	**2,866,944**	**2,866,944**	**2,794,459**	**536,654**	**536,654**	**536,654**	**448,888**
One-year variable remuneration								
Annual bonus 2019				127,500				127,500
Annual bonus 2020	150,000	0	300,000		150,000	0	300,000	0
Multi-year variable remuneration								
Multi-year bonus 2019				297,500				297,500
Multi-year bonus 2020	350,000	0	700,000		350,000	0	700,000	0
Other								
Total	**3,366,944**	**2,866,944**	**3,866,944**	**3,219,459**	**1,036,654**	**536,654**	**1,536,654**	**873,888**
Pension expenses	830,796	830,796	830,796	791,092	268,296	268,296	268,296	228,592
Total remuneration	4,197,740	3,697,740	4,697,740	4,010,551	1,304,950	804,950	1,804,950	1,102,480

	Peter Röder Board member			
€	2020	2020 (min)	2020 (max)	2019
Basic remuneration	1,125,000	1,125,000	1,125,000	1,075,000
Remuneration in kind/fringe benefits	35,060	35,060	35,060	30,446
Total	**1,160,060**	**1,160,060**	**1,160,060**	**1,105,446**
One-year variable remuneration				
Annual bonus 2019				322,500
Annual bonus 2020	337,500	0	675,000	
Multi-year variable remuneration				
Multi-year bonus 2019				752,500
Multi-year bonus 2020	787,500	0	1,575,000	
Other				
Total	**2,285,060**	**1,160,060**	**3,410,060**	**2,180,446**
Pension expenses	571,572	571,572	571,572	554,553
Total remuneration	2,856,632	1,731,632	3,981,632	2,734,999

1 Where necessary, amounts have been rounded to the nearest euro.
2 Nicholas Gartside does not participate in an employer-financed pension. By way of compensation for this, a conditional one-off payment will be made at the end of his appointment. In the event of his death or disability prior to the end of his term of office, this payment will be made pro rata temporis for the period until then.
3 Achim Kassow does not participate in an employer-financed pension. By way of compensation for this, a conditional monthly payment was made along with other remuneration.
4 Markus Rieß' remuneration also includes compensation components and pension expenses for work at ERGO Group AG.

Remuneration paid in accordance with the German Corporate Governance Code[1]

€	Joachim Wenning Chairman of the Board of Management 2020	2019	Overall performance evalution in %	Thomas Blunck Board member 2020	2019	Overall performance evalution in %
Basic remuneration	2,325,000	2,225,000		1,125,000	1,075,000	
Remuneration in kind/fringe benefits	37,149	40,963		32,093	33,913	
Total	**2,362,149**	**2,265,963**		**1,157,093**	**1,108,913**	
One-year variable remuneration						
Annual bonus 2019[2]		867,750	130		419,250	130
Annual bonus 2020[3]	0		0	0		0
Multi-year variable remuneration[4]						
Multi-year performance 2017–2019[2, 5]		1,604,423	94		863,870	86
Other						
Total	**2,362,149**	**4,738,136**		**1,157,093**	**2,392,033**	
Pension expenses	1,187,267	1,136,393		575,154	561,321	
Total remuneration	3,549,416	5,874,529		1,732,247	2,953,354	

→

€	Nicholas Gartside Board member (since 18 March 2019) 2020	2019	Overall performance evalution in %	Doris Höpke Board member 2020	2019	Overall performance evalution in %
Basic remuneration	1,125,000	848,909		1,125,000	1,075,000	
Remuneration in kind/fringe benefits	22,625	19,478		26,919	31,532	
Total	**1,147,625**	**868,387**		**1,151,919**	**1,106,532**	
One-year variable remuneration						
Annual bonus 2019[2]		331,075	130		419,250	130
Annual bonus 2020[3]	0		0	0		0
Multi-year variable remuneration[4]						
Multi-year performance 2017–2019[2, 5]		–			823,690	82
Other[6]	573,750	411,188				
Total	**1,721,375**	**1,610,650**		**1,151,919**	**2,349,472**	
Pension expenses	–	–		574,356	548,842	
Total remuneration	1,721,375	1,610,650		1,726,275	2,898,314	

See the end of the table for footnotes.

€	Torsten Jeworrek Board member 2020	2019	Overall performance evalution in %	Christoph Jurecka Board member 2020	2019	Overall performance evalution in %
Basic remuneration	1,625,000	1,550,000		1,500,000	1,300,000	
Remuneration in kind/fringe benefits	39,029	38,286		24,240	30,041	
Total	**1,664,029**	**1,588,286**		**1,524,240**	**1,330,041**	
One-year variable remuneration						
Annual bonus 2019[2]		604,500	130		507,000	130
Annual bonus 2020[3]	0		0	0		0
Multi-year variable remuneration[4]						
Multi-year performance 2017–2019[2, 5]		1,185,310	82		–	
Other						
Total	**1,664,029**	**3,378,096**		**1,524,240**	**1,837,041**	
Pension expenses	876,204	854,034		765,000	663,000	
Total remuneration	2,540,233	4,232,130		2,289,240	2,500,041	

€	Achim Kassow Board member (since 1 May 2020) 2020	2019	Overall performance evalution in %	Hermann Pohlchristoph Board member (until 30 April 2020) 2020	2019	Overall performance evalution in %
Basic remuneration	750,000	–		358,333	1,075,000	
Remuneration in kind/fringe benefits	46,036	–		15,185	48,370	
Total	**796,036**	**–**		**373,518**	**1,123,370**	
One-year variable remuneration						
Annual bonus 2019[2]		–			419,250	130
Annual bonus 2020[3]	0		0	0		0
Multi-year variable remuneration[4]						
Multi-year performance 2017–2019[2, 5]		–			507,640	84
Other[7]	382,500					
Total	**1,178,536**	**–**		**373,518**	**2,050,260**	
Pension expenses		–		182,750	548,574	
Total remuneration	1,178,536	–		556,268	2,598,834	

See the end of the table for footnotes.

€	Total[8] 2020	Total[8] 2019	Markus Rieß Board member thereof for Munich Reinsurance Company 2020	2019	Overall performance evaluation in %
Basic remuneration	2,750,000	2,675,000	500,000	425,000	
Remuneration in kind/fringe benefits	116,944	119,459	36,654	23,888	
Total	**2,866,944**	**2,794,459**	**536,654**	**448,888**	
One-year variable remuneration					
Annual bonus 2019[2]		165,750		165,750	130
Annual bonus 2020[3]	0		0		0
Multi-year variable remuneration[4]					
Multi-year performance 2017–2019[2, 5]		1,801,166		700,088	127
Other					
Total	**2,866,944**	**4,761,375**	**536,654**	**1,314,726**	
Pension expenses	830,796	791,092	268,296	228,592	
Total remuneration	3,697,740	5,552,467	804,950	1,543,318	

€	Peter Röder Board member 2020	2019	Overall performance evaluation in %
Basic remuneration	1,125,000	1,075,000	
Remuneration in kind/fringe benefits	35,060	30,446	
Total	**1,160,060**	**1,105,446**	
One-year variable remuneration			
Annual bonus 2019[2]		419,250	130
Annual bonus 2020[3]	0		0
Multi-year variable remuneration[4]			
Multi-year performance 2017–2019[2, 5]		823,690	82
Other			
Total	1,160,060	2,348,386	
Pension expenses	571,572	554,553	
Total remuneration	1,731,632	2,902,939	

1 Where necessary, amounts have been rounded to the nearest euro.
2 In the 2019 Annual Report, the amounts to be paid for the 2019 annual bonus and multi-year performance 2017–2019 were recognised on the basis of the provisions, as no Supervisory Board resolution had yet been passed on the actual bonus amounts to be paid. The Annual Report for 2020 shows the actual amounts set by the Supervisory Board and to be paid out for 2019.
3 At the time of preparation of this report, no Supervisory Board resolution had yet been passed on the amounts to be paid for the 2020 annual bonus; the amount shown is based on estimates and the relevant provisions posted.
4 Owing to the change made in 2018 to the term of the multi-year variable remuneration component from three to four years, no multi-year component ended in 2020.
5 The multi-year performance component paid annually through and including 2017 was geared to the success of the fields of business and personal performance of the members of the Board of Management, for which three-year objectives were agreed. In addition, the Supervisory Board assessed the overall performance of the Board of Management as a whole and the individual Board members, and it also took into account developments during the appraisal period that are beyond the influence of the Board. Payment was effected in the fourth year, with 25% of the net payout amount to be invested in Munich Reinsurance Company shares that must be held for at least a two-year period.
6 Nicholas Gartside does not participate in an employer-financed pension. By way of compensation for this, a conditional one-off payment will be made at the end of his appointment. In the event of his death or disability prior to the end of his term of office, this payment will be made pro rata temporis for the period until then.
7 Achim Kassow does not participate in an employer-financed pension. By way of compensation for this, a conditional monthly payment was made along with other remuneration.
8 Markus Rieß' remuneration also includes compensation components and pension expenses for work at ERGO Group AG.

Total remuneration of the Supervisory Board

In 2020, each member of the Supervisory Board received fixed annual remuneration of €100,000. The Chairman of the Supervisory Board received annual remuneration of €220,000, and the deputy chair annual remuneration of €150,000.

Members of the Audit Committee each received an additional €55,000; members of the Standing Committee each received an extra €15,000; and members of the Personnel and Remuneration Committees each received an additional €30,000. For members of the Supervisory Board who were on both committees, their membership on the Remuneration Committee was also covered by the fee for their membership on the Personnel Committee.

Committee chairs each received double the said amounts. No additional remuneration was paid for membership on the Nomination Committee or the Conference Committee.

Members of the Supervisory Board received a daily attendance fee of €1,000 for meetings of the Supervisory Board or its committees – with the exception of the Conference Committee.

In case of changes in the Supervisory Board and/or its committees, the remuneration was paid on a pro-rata basis, rounded up to the next full month.

The current remuneration system for members of the Supervisory Board does not contain variable remuneration components or pension benefits.

Remuneration of the Supervisory Board members[1]

		In accordance with Article 15 of the Articles of Association				For membership of supervisory boards at Munich Reinsurance Company subsidiaries, in accordance with the companies' respective articles of association			
		Fixed remuneration				Fixed remuneration			
Name	Financial year	Annual	Committee work	Attendance fees	Total	Annual	Committee work	Attendance fees	Total
		€	€	€	€	€	€	€	€
Nikolaus von Bomhard	**2020**	**220,000**	**145,000**	**18,000**	**383,000**				
Chairman	2019	165,000	108,750	9,000	282,750				
Anne Horstmann	**2020**	**150,000**	**15,000**	**8,000**	**173,000**	**9,276**	**4,638**		**13,914**
Deputy Chairman	2019	137,500	29,583	8,000	175,083	43,678	12,541		56,219
Ann-Kristin Achleitner	**2020**	**100,000**	**115,000**	**17,000**	**232,000**				
	2019	100,000	107,500	15,000	222,500				
Kurt Wilhelm Bock	**2020**	**33,333**	**5,000**	**3,000**	**41,333**				
(until 29 April 2020)	2019	100,000	11,250	6,000	117,250				
Clement Booth	**2020**	**100,000**		**8,000**	**108,000**				
	2019	100,000		6,000	106,000				
Ruth Brown	**2020**	**100,000**		**8,000**	**108,000**				
	2019	75,000		4,000	79,000				
Stephan Eberl	**2020**	**100,000**	**45,000**	**12,000**	**157,000**				
	2019	75,000	33,750	5,000	113,750				
Frank Fassin	**2020**	**100,000**		**8,000**	**108,000**	**31,749**			**31,749**
	2019	100,000		6,000	106,000	35,000			35,000
Benita Ferrero-Waldner	**2020**	**100,000**		**7,000**	**107,000**				
	2019	100,000		6,000	106,000				
Ursula Gather	**2020**	**100,000**		**8,000**	**108,000**				
	2019	100,000		6,000	106,000				
Gerd Häusler	**2020**	**100,000**	**15,000**	**8,000**	**123,000**				
	2019	100,000	15,000	6,000	121,000				
Eva-Maria Haiduk	**2020**	**100,000**		**8,000**	**108,000**				
	2019	75,000		4,000	79,000				
Renata Jungo Brüngger	**2020**	**100,000**	**30,000**	**11,000**	**141,000**				
	2019	100,000	22,500	7,000	129,500				

		In accordance with Article 15 of the Articles of Association				For membership of supervisory boards at Munich Reinsurance Company subsidiaries, in accordance with the companies' respective articles of association			
		Fixed remuneration				Fixed remuneration			
Name	Financial year	Annual	Commit-tee work	Attend-ance fees	Total	Annual	Commit-tee work	Attend-ance fees	Total
		€	€	€	€	€	€	€	€
Stefan Kaindl	**2020**	**100,000**	**55,000**	**14,000**	**169,000**				
	2019	75,000	41,250	8,000	124,250				
Gabriele Mücke	**2020**	**100,000**		**8,000**	**108,000**				
	2019	75,000		4,000	79,000				
Ulrich Plottke	**2020**	**100,000**	**55,000**	**14,000**	**169,000**	**36,387**	**13,224**		**49,611**
	2019	100,000	41,250	10,000	151,250	43,822	12,459		56,281
Manfred Rassy	**2020**	**100,000**		**8,000**	**108,000**				
	2019	75,000		4,000	79,000				
Gabriele Sinz-Toporzysek	**2020**	**100,000**		**8,000**	**108,000**	**5,697**			**5,697**
	2019	100,000		6,000	106,000	15,000			15,000
Carsten Spohr	**2020**	**75,000**		**5,000**	**80,000**				
(since 29 April 2020)	2019								
Karl-Heinz Streibich	**2020**	**100,000**		**8,000**	**108,000**				
	2019	75,000		4,000	79,000				
Maximilian Zimmerer	**2020**	**100,000**	**120,000**	**14,000**	**234,000**				
	2019	100,000	82,500	10,000	192,500				
Total[2]	2020	2,178,333	600,000	203,000	2,981,333	83,109	17,862		100,971
	2019	1,927,500	493,333	134,000	2,554,833	137,500	25,000		162,500

1 Plus value-added tax (USt) in each case, in accordance with the relevant Articles of Association.
2 The previous year's figures do not include the remuneration of members who left the Supervisory Board in the 2019 financial year.

Macroeconomic and industry environment

The coronavirus pandemic and the measures deployed to counteract it in 2020 plunged the global economy into its most severe crisis in decades. Global economic output fell sharply on the previous year. The economies in the United States, the eurozone, Japan and the United Kingdom were in a deep recession. Although the Chinese economy began recovering from its sharp drop as early as the spring, it managed only a low average growth rate in 2020. The rates of inflation in advanced economies were lower on average than in the previous year; in the eurozone and Japan, inflation was very low.

Capital markets

Many central banks took far-reaching measures to cushion the impact of the economic crisis and to stabilise the financial system. Within just two weeks in March, the Federal Reserve in the United States lowered its policy rate corridor by 1.5 percentage points to 0–0.25%. The Fed also resumed its bond-buying programme. The European Central Bank (ECB) increased its monthly net purchases of assets in March and launched a pandemic emergency purchase programme (PEPP), which the ECB then augmented twice during 2020. In addition, the ECB kept its interest rate for main refinancing operations at 0%. Yields on ten-year government bonds in the United States and Germany dropped to record lows in 2020. The very low yields were attributable to the policy rate cut in the USA, the expansion of bond-buying programmes by the Fed and the ECB, and many investors' flight to safe assets. A minor recovery notwithstanding, yields in late December were still down on the start of the year. Yields on ten-year government bonds in Germany remained in negative territory.

Yields on ten-year government bonds

%	31.12.2020	31.12.2019
USA	0.9	1.9
Germany	–0.6	–0.2

Volatility in international financial markets was very high. Equity markets worldwide fell sharply in response to the rapid spread of the coronavirus and an escalation in the oil market's price war. Important equity indices, such as the US Dow Jones and the DJ EURO STOXX 50, were down more than a third in mid-March from their levels at the end of 2019. Following massive intervention by central banks and pledges of extensive fiscal measures, a lot of equity markets proceeded to rebound strongly. The Dow Jones Index closed at a record high at the end of 2020, buoyed by hopes of effective COVID-19 vaccines.

Equity markets

	31.12.2020	31.12.2019
DJ EURO STOXX 50	3,553	3,745
Dow Jones Index	30,606	28,538

Currency markets likewise experienced sharp fluctuations. For example, the US dollar ranged between €0.87 and €0.94 in March. At the end of December, the US dollar, the Canadian dollar and the British pound were all much lower against the euro compared with the end of 2019. On average, the year-on-year value of the euro in 2020 was somewhat higher against the US dollar, the Canadian dollar and the pound sterling. Further information on exchange rates can be found in the section Currency translation in the Notes to the consolidated financial statements.

Insurance industry

According to preliminary estimates, the German insurance industry's year-on-year premium income growth in 2020 was weak on the whole. Premiums rose in property-casualty business and in private health insurance; however, premiums in life insurance declined slightly.

It is expected that – when adjusted for inflation – global premium income in property-casualty primary insurance business was roughly the same in 2020 as in 2019. In light of the severe recessions in many countries, the economic crisis had a comparatively minor impact on premium income. Based on the estimates, premium income saw inflation-adjusted growth in the United States, Germany, South Korea and Australia. Adjusted for inflation, premium income decreased slightly in China and France, with greater decreases in Italy and India. Various price trends were evident in the renewal rounds for property-casualty reinsurance treaties, with average prices rising overall. Prices increased considerably for reinsurance cover in regions and classes of business with high claims experience. But in regions and classes of business with low claims experience, prices stagnated or rose only slightly.

Combined non-financial statement

In accordance with the provisions of the European Non-Financial Reporting Directive (NFRD) and the corresponding requirements of German commercial law pursuant to Sections 289b and 315b of the German Commercial Code (HGB), Munich Re is publishing a combined non-financial statement. This statement combines the consolidated non-financial statement of the Munich Re Group and the non-financial statement of Munich Reinsurance Company. All content contained in the statement applies both to the Group and to Munich Reinsurance Company, unless otherwise noted.

The information about Munich Re's business model, required under Sections 289c(1) and 315c(1) of the German Commercial Code, is published in the Group section.

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft was hired to perform a limited assurance engagement on the combined non-financial statement. Any references to information outside the Group management report constitute outside information and are not part of the combined non-financial statement; they are not covered by the audit.

Corporate responsibility strategy and governance

Our corporate responsibility strategy

A core guiding principle for Munich Re is to act in a far-sighted and responsible manner. We have based our Group-wide corporate responsibility strategy on the shared value approach, which means that we strive for our business operations to add both economic and societal value. Dealing with the consequences of climate change and increasing digitalisation, and strengthening risk awareness, constitute Munich Re's main objectives in this regard.

With our Ambition 2025, which we adopted in December 2020, we have strengthened our corporate responsibility strategy even further, and put even higher priority on environmental, social and governance (ESG) criteria.

For almost 50 years, Munich Re has been addressing the issue of climate change, its effects on the insurance industry, and the resulting risks and opportunities. Munich Re began pointing to the effects of climate change very early, and has been participating in international climate conferences, and supporting international climate goals since the start. We want to act as a role model on the topic of climate protection and contribute to the Paris climate goals of keeping global warming well below 2°C, and thus limiting the effects of climate change.

A key contribution in fighting the effects of climate change is helping new technologies break into the market for a low-carbon future – whether it be in power generation, transport, energy storage or industrial production. We offer insurance solutions in which we assume a portion of the often very specific risks of such new technologies.

Furthermore, as part of our Ambition 2025 we have adopted a broad climate protection programme featuring ambitious climate protection targets for our investments, the insurance business and our operations:

The Board of Management of the Munich Re Group decided as early as 15 January 2020 to join the Net Zero Asset Owner Alliance. We have thus pledged, together with other investors, to push to meet the Paris climate targets and to successively bring our portfolio to net zero by 2050. More specifically, net greenhouse gas emissions in our investment portfolio will be reduced by 25–29% between now and 2025, before being brought down to zero by 2050. We have already stopped investing altogether in companies that generate more than 30% of their earnings from thermal coal or more than 10% of their earnings from oil sand extraction.

In primary insurance and in direct and facultative (re)insurance business, Munich Re will be significantly lowering its carbon emissions in connection with fossil fuels, and implementing a detailed climate strategy to this effect in 2021. As of 2040, Munich Re will no longer do any insurance business in connection with thermal coal (mines or power plants). The ensuing attributable carbon emissions will already be substantially reduced as of 2022, and by 2025 they will be 35% lower than the base year of 2019. In the oil and gas mining and production sector, we will be lowering the emissions attributable to our business by 5% by 2025, and to net zero by 2050. Munich Re has already basically stopped insuring new coal-fired power plants and coal mines, as well as oil-sand mines.

Furthermore, Ambition 2025 includes a new ambitious target of reducing carbon emissions and exclusively using green electricity in our own operations by 2025. Another long-term goal is to reduce Group emissions to net zero by 2030. To achieve this goal, as of 2021 we will be successively offseting the Group's remaining carbon emissions by financing projects that remove carbon from the atmosphere.

Since 2009, we have significantly reduced the Group's emissions by lowering our energy, water and paper use, waste and business travel as much as possible, and also by purchasing green electricity where possible. We then neutralise any remaining, unavoidable carbon emissions by purchasing carbon certificates from projects that meet high quality standards, and which avoid using fossil fuels and promote energy efficiency.

In addition to our goals under Ambition 2025, our voluntary commitments to covenants such as the Ten Principles of the United Nations Global Compact, the Principles for Responsible Investment (PRI), and the Principles for Sustainable Insurance (PSI) constitute the pillars of our actions. We take environmental, social and governance (ESG) aspects into account when assessing risks, developing insurance solutions, making investment decisions, and in our internal processes (for example, in procurement).

Furthermore, in 2020 Munich Re issued its first-ever subordinated green bond, underscoring its commitment to driving a climate-friendly transformation of the economy via the capital markets. Munich Re will use the €1.25bn in capital thus raised to finance or refinance sustainable projects in accordance with our Green Bond Framework. Projects include investments of equity and debt in renewable energy, energy efficiency, clean transportation, green buildings, sustainable water and wastewater management, the eco-efficient and/or circular economy, and the environmentally sustainable management of natural resources and land. Munich Re's Green Bond Framework is aligned with the 2018 Green Bond Principles set by the International Capital Market Association (ICMA).

In addition to climate change, digitalisation is becoming increasingly important. As a result of the coronavirus pandemic in particular, digitalisation has advanced significantly, both in the public and private sectors. Many insurance companies also used the time to significantly speed up their efforts to transform their processes into digital and data-driven systems.

For Munich Re, digitalisation is creating numerous opportunities for the insurance business. It allows us to deepen our knowledge, strengthen our existing business relationships and open up new opportunities with the help of the Internet of Things. This includes the technology-based early detection and reduction of insurance losses and the provision and financing of production facilities (equipment-as-a-service business models).

The increasing automation, digitalisation and individualisation is also creating new risks from the use of artificial intelligence. In response, Munich Re is offering performance guarantees for business models based on artificial intelligence. ERGO is focusing on continuing to modernise its IT landscape and applying the acquired skills Group-wide.

For us, using advances in digital technology responsibly – for example by developing standards to evaluate algorithms – is of central importance. Our work in this field is guided by the principle of responsible artificial intelligence based on the seven Ethics Guidelines for Trustworthy Artificial Intelligence prepared by the European Commission's High-Level Expert Group on Artificial Intelligence. Munich Re's main goal in this respect is to offer insurance solutions that are tailored to our customers' needs, for example by making it easier and quicker for us to assess risks, settle claims, or insure new types of risk.

When developing algorithms for this purpose using artificial intelligence, any unfair disadvantaging of policyholders must be avoided. This may result from premium increases or the denial of insurance cover – for example, if algorithms are based on nationality or ethnic background. Compliance with data protection law must also be ensured when using artificial intelligence to process personal data.

In primary insurance, data and artificial intelligence are the main elements driving digital transformation, particularly though intelligent process automation and more individualised customer service.

Further information on our endeavours is available from our corporate responsibility portal at www.munichre.com/cr-en.

Corporate responsibility governance structure

Munich Re has clearly defined the organisational responsibilities for corporate governance within the Group. Our Economics, Sustainability & Public Affairs Division, which reports directly to the Chairman of the Board of Management, is responsible for drafting and implementing the guidelines on our Group's corporate responsibility strategy. Fundamental strategic decisions are taken either directly by the Board of Management, or by one of its committees.

Delimitation of content to be mandatorily reported

Munich Re does not apply any of the nationally or internationally available frameworks for sustainability reporting (e.g. the German Sustainability Code or Global Reporting Initiative) in its combined non-financial statement. Such frameworks are based on a variety of different definitions of materiality and would mean selecting topics that were insufficient to present the non-financial aspects of Munich Re's business in the combined non-financial statement. At Munich Re, we have instead chosen our reporting topics based on a two-stage, internal selection process.

Based on topics preselected by the stakeholder dialogue which might influence Munich Re's corporate responsibility strategy, we first identify those issues which, from our perspective, are relevant for an understanding of the effects that our business has on environmental, labour, social or human rights aspects, and in the fight against corruption and bribery. We have published information about our stakeholder dialogue in our Corporate Responsibility Report at www.munichre.com/cr-en.

The identified topics are then discussed by a multidisciplinary panel, to determine whether they are significant for a proper understanding of the Group's development, performance, and current position. This review is performed on the basis of a uniform set of criteria, including how frequently reports are submitted to the Board of Management and Supervisory Board, and whether a topic needs to be taken into account in our risk management system.

This selection process has highlighted the following issues of relevance:

- Corporate responsibility in insurance and investment
- Munich Re as a preferred employer and diversity as a strategic success factor
- Fighting corruption and bribery
- Data protection

Under the heading Corporate responsibility in insurance and investment, we have included information on the statutorily defined aspects of environmental, social and human rights issues.

The year 2020 was greatly affected by the coronavirus crisis. It had a significant effect on the issue of employee relations, which we have reported on accordingly in the sections Munich Re as a preferred employer and Diversity as a strategic success factor.

Risk management

For us as risk carriers, risk management constitutes a key element of responsible and sustainable corporate governance. In addition to financial risks, we also include non-financial risks in the areas of environment, society and governance (ESG risks) in our internal risk management process.

Non-financial, ESG-related risks are reported in the internal and external risk reports and in our regulatory reporting. Our Integrated Risk Management Division is independently responsible for assessing and monitoring these risks.

Munich Re's business activities do not normally entail any material risks as defined in the applicable legislation (e.g. social or environmental risks). Nevertheless, risks that can be categorised as ESG risks may indirectly arise from our insurance business (e.g. through covering major infrastructure projects) or investments. Munich Re is aware of its responsibility for ESG risks and manages them accordingly (see section on Corporate responsibility in insurance and investment). Not complying with ESG standards may negatively affect Munich Re's reputation – in addition to the potential consequences for the environment and society – and thus become a significant non-financial risk factor. As a result, risks that fall under the legislative criteria are particularly recorded in the context of the assessment of reputational risk. We identify, analyse, assess and monitor reputational risks with the aid of qualitative processes. Reputational risk committees (RRCs) in the fields of reinsurance, primary insurance and at MEAG assess concrete reputational issues and the potential reputational risks of individual transactions, and also review ESG risks. The RRCs make an accurate assessment of the likelihood and the severity of impact of a reputational event, and then decide whether the risk should be rated as critical. In the Internal Risk Report, we regularly detail the main reputational risks for Munich Re.

In the 2020 reporting year, no reportable ESG risks were identified.

Management of information security risks

In the area of information security, the Group Chief Information Security Officer (Group CISO) is responsible for defining, maintaining and implementing our information security strategy, through measures and projects such as launching our Group-wide risk management methodology and a consistent governance structure for information security. This enables information security risks to be consistently assessed and managed Group-wide. At the same time, the projects and measures work to continually improve information security at Munich Re, and aim to satisfy the steadily growing number of legal and regulatory requirements. We have established separate risk assessment processes and reporting lines for the issues of corruption and bribery as well as data protection, which are monitored by the Group Compliance & Legal division. We report on the various rules, procedures and measures in the Fighting corruption and bribery and Data protection sections.

Our established data protection and information security processes demonstrated their effectiveness even during the global shift of operations from offices to homes.

Managing climate risks

Munich Re has integrated climate risks into its Group risk management processes. This process includes and bundles the know-how of our scientists, underwriters, legal experts, managers and actuaries. Munich Re is subject to climate change risks as a result of the natural hazard risks it assumes in its insurance business.

We model natural catastrophe (nat cat) risks mainly based on the frequency and severity of weather-related risks. As a rule, nat cat risks that are caused by anthropogenic climate change tend to change significantly only over periods of many years. We take such climate risks into account in our risk assessment. Two examples of this are our assessment of the “USA wildfire” and “USA thunderstorm” scenarios.

Our experts for natural disaster risk assessment in our Geo Risks department have many years of experience in developing probability-based computer models for assessing natural catastrophe risks, and also take into account the potential accumulation risks of natural disasters. We also include in our risk evaluations any significant changes to claims spreads that result from climate risks.

In addition, Munich Re is closely networked within the field of climate science, on the one hand through working and publishing together with scientific institutes, and on the other hand by funding research programmes. Our findings from these analyses of nat cat risks, anthropogenic climate change and natural climatic cycles help us to constantly improve Munich Re’s appraisal of related risks, for example of severe thunderstorms, tropical cyclones or floods.

Corporate responsibility in insurance and investment

Applying our corporate responsibility strategy, we systematically integrate sustainability – i.e. environmental, social and governance (ESG) – criteria when creating value in our core business. And we emphasise this by taking ESG elements into account in our Board of Management members’ variable remuneration.

In order to prevent or limit negative consequences for the environment, local communities or human rights, we have integrated ESG criteria into our risk assessment processes and investment decision-making at Group level. Moreover, Munich Re’s Board of Management has adopted a position paper confirming our commitment to respecting and upholding human rights, which is published at www.munichre.com/en/cr/documents.

We have developed Group positions and implemented mandatory guidelines and policies for our staff on the following issues:

- Banned weapons: Binding policy on cluster munition and land mines; applicable in primary insurance and reinsurance; prohibition on investing in manufacturers of such weapon systems
- Thermal coal and oil sands: Mandatory policy on insuring coal and oil sand risks; applicable in primary insurance and reinsurance, restrictions on investment in the coal and oil sand sectors, with clearly defined revenue ceilings
- Fracking and mining: Position papers that explain the technologies and various extraction and mining techniques, and also provide staff with technology-specific answers and support in assessing ESG risks; applicable in primary insurance and reinsurance
- Arctic drilling: Binding risk assessment by the Arctic Drilling Panel, which then decides whether to accept or reject the project; applicable in primary insurance and reinsurance
- Investment in farmland: Mandatory ESG review
- ESG country ratings: Prohibition on investing in government bonds from countries with inadequate ESG ratings
- Soft commodities: Ban on futures trading in soft commodities

Every year, we have our activities validated externally by taking part in selected ratings issued by independent rating agencies specialising in sustainability. The ratings and results are submitted to the Board of Management, which then identifies any room for improvement and recommends corresponding measures.

ESG aspects of insurance

In our insurance business, we take ESG aspects into account in underwriting and in our products and services.

A key focus is on helping new technologies break into the mainstream for a sustainable and viable economy. Our goal is to support these technologies by offering insurance solutions that cover the associated risks, thus making the different technologies more attractive for investors and strengthening financing prospects. Munich Re has particular risk management expertise in this area, and boasts many years of experience especially in the renewable energy, energy storage and energy efficiency sectors.

Moreover, we impart the necessary ESG skills to our staff through training, lectures and a coordinator network in the reinsurance field of business. We also offer an ESG tool that contains questionnaires specially tailored to sensitive issues, and which supports our underwriters in systematically taking ESG aspects into account when assessing risks. In addition, staff who write business internationally are provided with ESG country ratings, giving them an instant overview of the most important indicators. In primary insurance, analysing ESG aspects constitutes a standard component of our product development process in personal lines business.

On the subject of ESG aspects in the insurance industry, Munich Re, together with other insurers, is additionally committed to the Principles for Sustainable Insurance (PSI) developed by the Finance Initiative of the United Nations Environment Programme. The PSI aim to increase awareness of ESG risks and how to prevent them, as well as develop corresponding industry standards. Our annual progress on these issues is documented in the PSI public disclosures. The current report is available at www.munichre.com/en/cr/documents.

Munich Re actively assisted in designing a PSI initiative which, in June 2020, led to a compilation of best practices for assessing sustainability risks in non-life insurance being adopted for the first time. The proposed ESG standards are the result of several years of collaboration with leading insurers and key stakeholders at the global level. They explain to insurers as well as agents how to systematically approach ESG aspects. We continue to develop our own standards for rating ESG risks, including taking into account those developed by the PSI initiative.

Risk transfer and other innovative solutions for dealing with climate change

With its Ambition 2025, Munich Re has set climate goals for its insurance business as well. These goals comprise emission reduction paths in primary insurance as well as in direct and facultative fossil-fuel reinsurance business, for the coal industry and oil and gas (exploration/production). The goal is for Munich Re to cut its net emissions from oil and gas to zero by 2050. Emissions from coal in those lines are to be reduced to zero already by 2040.

In addition to this successive adjustment of our insurance portfolio, which also includes interim targets for 2025, our climate protection activities are centred around "enabling", i.e. expanding our business to promote new, climate-friendly technologies to reduce corresponding emissions.

We have taken on a pioneering role in the market by consistently offering new insurance products. With our Munich Re Warranty Partner label, we have been offering manufacturers of photovoltaic modules 25 years of performance guarantee insurance coverage since 2009, and took a leading role in this area in 2020 as well. This coverage releases our policyholders, at least partially, from having to reserve capital against any potential guarantee claims, thus freeing up resources to be used instead for R&D, for example. As a result, our policyholders' major clients are insured against their companies' filing for insolvency due to a guarantee claim. This leads to better financing terms and conditions not only for our policyholders, but for their clients as well. We also offer performance coverage for stationary battery storage, thus enabling the battery manufacturers to provide their customers with long-term insured performance guarantees. The insurance covers repair and exchange costs for system components (e.g. battery modules) above a given threshold. Another of our insurance products in the renewable energy sector is Wind Energy Yield Cover for the availability and performance of wind turbines, and the amount of wind. We also insure general contractors for offshore wind parks. Such contractors usually issue broad, multi-year guarantees to operators for the wind farm's proper construction, material quality, long-term stability and functionality, amounting to up to 50% of the total project volume. Without our coverage, this risk would be too great for the contractor, and the projects could not be realised. Our product range also includes performance guarantee insurance for fuel cells and life-cycle industries, particularly recycling, and for biomass facilities.

Another of our innovative approaches is offered with the support of the European Commission ("Sustainable Energy for All" UN Initiative), together with the KfW development bank, the European Investment Bank (EIB) and the local insurer African Trade Insurance Agency. The product offers coverage for political risks that can threaten renewable energy projects in sub-Saharan Africa, for example state payment defaults on power purchase agreements, expropriation and breach of contract, or war and civil unrest. It is called the African Energy Guarantee Facility (AEGF) and offers tailored insurance solutions to make investment in energy projects easier, since the latter tend to be long-term undertakings.

At the same time, we are working toward the goal of divesting from carbon-intensive technologies, for example via our Group's policy on thermal coal and oil sands, and our new climate strategy.

It is also absolutely necessary for us to offer protection and help adapt to natural catastrophes and climate change, in order to mitigate their humanitarian and financial consequences. We support prevention and are making our know-how and data from our worldwide natural catastrophe loss database available to our clients, the media and public and private organisations, in order to allow them to take measures to adjust to those consequences of climate change that have already become unavoidable. We provide this service mostly for free; in exceptional cases some charges will apply, depending on the time and amount of data involved. In addition, as a (re)insurer, Munich Re bears some of the financial burden that arises from natural catastrophes, and thus bolsters the capacity of public and private risk carriers – as well as the affected populations – to return as quickly as possible to normality after a loss event (resilience). Greater insurance penetration can help absorb the economic shock of a natural disaster and promote sustainable economic growth, especially in developing countries and emerging markets, which are being hit particularly hard by climate change, due to the often overwhelming challenges of trying to prevent the losses. We support cooperation between governments and the private sector, also known as public-private partnerships, which are a key option for mitigating the effects of natural catastrophes and contributing to a quicker recovery – especially in low-income countries. Since 2016, we have also been members at Board level of the Steering Committee of the Insurance Development Forum (IDF), and actively participate in working groups to develop pilot projects to insure against natural catastrophes in developing countries and emerging markets.

Sustainable investments

In addition to monetary considerations, our investments systematically take ESG criteria into account, which helps us to identify other risks and opportunities beyond those of classical financial analysis. We are convinced that this will lead to investment decisions that remain responsible in the long term. For this reason, Munich Re has long since committed, in our Responsible Investment Guideline, to incorporating sustainability criteria at various stages of the investment process (strategic asset allocation, choice of country and securities).

The United Nations Principles for Responsible Investment (PRI) provide a framework for sustainable action in the field of investment. The PRI standards aim to improve the general understanding of how investments affect the environment, society and corporate governance issues, and they support the PRI signatories in integrating these issues into their investment decisions. Certain reporting obligations are associated with the standards and are published in the PRI assessment. In the most recent PRI assessment in 2020, Munich Re earned the maximum number of points, achieving the top rating of “A+” in the category of Strategy and Governance. Only 39% of the 452 participating asset owners worldwide received this rating. The median rating was “A” among the relevant peer group of institutional investors. Another pillar of our corporate responsibility strategy was our joining the Net Zero Asset Owner Alliance, and incorporating its targets into our Ambition 2025.

Our investment policy is based on three pillars: systematic integration of ESG criteria, key investment areas (e.g. renewable energy or green bonds), and specific exclusion criteria defined in our mandatory guidelines and orientation aids.

Integrating ESG criteria is a fundamental component of our investment strategy. As a result, specially tailored ESG criteria have been incorporated into the selection process for every asset class. Our aim is to invest the bulk of our assets sustainably, and we track our progress in this regard in a sustainability index used internally at MEAG (NHQuote).

Given our aim of constantly improving our understanding of sustainability in investment, we apply MSCI ESG research and MSCI ESG ratings. With its high degree of global coverage of the most important asset classes, MSCI provides support in determining a sustainable investment portfolio and selecting sustainable individual investments. Our internal objective of investing at least 80% of our assets on the basis of recognised sustainability standards is still being taken into full account. As in previous years, this target – in terms of the €220bn (216bn) in investments that are relevant for calculating the sustainability ratio – was exceeded by far. We calculate this figure by applying a series of sustainability criteria for each asset class.

In 2020, part of our liquid portfolio (equities/bonds) was analysed from a carbon perspective using MSCI ESG data. We then used the findings to help develop our net-zero strategy.

Moreover, investments in equities and corporate bonds take into account the MSCI World ESG Leaders, FTSE4Good and ESI (Ethibel Sustainability Index) sustainability indices, as well as the ratings issued by the ESG agencies ISS-ESG and Sustainalytics. Government bonds are analysed on the basis of country sustainability ratings from MSCI. When deciding whether to invest in real estate, we take criteria such as a building’s energy efficiency and construction materials into account. Specific ESG aspects are already reviewed in the due diligence process for investments in infrastructure, renewable energy and forestry. Processes for the equity, bond (credit and governments) and private-equity sectors have been in place since 2018. All portfolio managers and credit analysts at all MEAG locations have received advance training in ESG criteria.

In addition, MEAG offers its private and institutional clients sustainable investment products. The MEAG sustainability fund invests worldwide, mostly in companies that do business sustainably. Producers in the tobacco, alcohol or weapons industries are excluded, as are companies in the gambling sector. MEAG FairReturn invests mostly in sustainable European bonds and equities. The decision criteria include both the issuer’s environmental and social track records, as well as its corporate governance and business performance. Companies in controversial fields of business are not considered. The MEAG EM Rent Nachhaltigkeit sustainability fund invests mostly in state and corporate bonds from developing and emerging countries that demonstrate stable and sustainable growth. Companies in controversial fields of business are excluded here as well.

Asset management leverages climate protection potential

Increased investment in renewable energy and infrastructure projects is a contribution towards adapting to and mitigating the effects of climate change.

Through our investments, we also want to promote the use of future technologies to avoid greenhouse gas emissions. Munich Re invests in renewable energy projects around the world, such as solar power plants and wind farms. Invested capital (equity and debt) in renewable energy amounted to around €1.6bn (1.6bn) as at 31 December 2020.

With our subordinated green bond, we made the commitment to invest the volume issued in climate-friendly projects, in accordance with the Green Bond Framework. We are aiming for a 36-month time horizon, and will be reporting annually inter alia on the investments made in an allocation report on our website.

We complement this approach of promoting new technologies and, wherever possible, divesting from climate-damaging technologies, with our Group-wide position on coal as an energy source. We have enshrined this position in our Responsible Investment Guideline. Munich Re does not invest in either equities or bonds from companies that generate more than 30% of their revenue from coal, or more than 10% of their revenue from oil sands extraction.

Overall, as at the end of the 2020 financial year, Munich Re invested around 1.4% (1.2%) of its total portfolio in renewable energy and green bonds. In doing so, we continue to focus on diversifying our investments across various regions and sectors, in order to distribute the technical and political risks across the portfolio.

Munich Re as a preferred employer and diversity as a strategic success factor

For Munich Re as a knowledge-based Group, the competence of our talented and high-performing staff constitutes one of the pillars of our success. Recruiting, developing and retaining employees constitute one of the two main components of our human resources policy. The second is promoting diversity across the Group as a strategic key to Munich Re's success.

Personnel issues that affect the entire Group are combined in a central unit in Human Resources. Strategic impulses on fundamental issues are provided by an HR committee; these are then embedded in the business practices of the fields of business via policies (e.g. on diversity). Our operative personnel management is closely tied to the specific needs of the respective business model, with the goal being to apply our business strategies as effectively as possible in the respective Group environment. In this regard, we sometimes adjust Group-wide personnel standards where appropriate, and adapt them to the local needs of specific fields of business.

Munich Re as a preferred employer

The goal of Munich Re's human resources policy is to be an attractive employer in all of its key markets, and to remain so in the future. Significant elements of this policy include attracting candidates worldwide who have extensive expertise and experience, and then developing and retaining them.

Staff development

In order to develop our staff, Munich Re boasts a comprehensive palette of training and support programmes, which is constantly updated to reflect current and future demands in particular. COVID-19 has sped up the development of our digital skills in many ways, and has significantly changed how our staff work worldwide. The training objectives and content are based on Munich Re's competence model, which covers all the core skills that we require of our staff across the Group.

Driving digitalisation and transformation

One of Munich Re's central goals is to ensure that our staff acquire and develop digital expertise.

The main digital training tool for all staff in reinsurance is our Digital School, a platform that offers a plethora of content and formats, allowing staff to expand their digital knowledge through independent study. Munich Re places particular emphasis on the responsible handling of data and algorithms, and has launched a global training initiative in Data Analytics for this purpose. It offers all staff in the reinsurance group the opportunity to follow a Data Analytics Curriculum in several digital steps.

The 3,750 (13,000) accesses to the Digital School in 2020, and the roughly 450 employees who have obtained the highest level of qualification under the Data Analytics Curriculum, demonstrate how relevant and attractive the School is. Our e-learning course on the basics of the Data Analytics Curriculum, which was developed in-house and featured 1,300 edits in 2020, coupled with a broad palette of training, won Munich Re a professional development award this year.

A key step in transforming our learning environment was the introduction of LinkedIn Learning in mid-2020 for all staff in reinsurance. Thanks to the great flexibility and massive expansion of the topics available for virtual learning, the new platform has been extremely popular worldwide, as evidenced by the 4,300 active licenses and more than 120,000 training videos watched.

At ERGO, all classroom seminars have been transformed into virtual courses since the beginning of the coronavirus pandemic. ERGO has developed its own digital platform, the e-campus, which offers courses for independent learning. A further platform provides digital content in the areas of management, innovation and digitalisation to around 1,000 senior executives worldwide. Staff can complement their knowledge, particularly on current topics such as digital transformation, via additional specific courses and video formats, as well as a weekly audio podcast.

MEAG also seized the opportunity to rapidly expand its digital formats, for example in the recruiting and onboarding process, and is offering new online learning formats.

Identifying and promoting top talent

We have established a variety of professional-development and training programmes to manage and promote our future talent: as at 31 December 2020, nine (ten) participants are taking part in EXPLORE and 152 (147) in our Group Management Platform, two Group-wide staff development programmes. A separate programme called Hydrogen identifies top talent in reinsurance. Furthermore, as at 31 December 2020, we are offering 60 (36) graduate trainees from around the world a career in reinsurance via the International Graduate Trainee Programme.

Remaining an attractive employer by seeking out and retaining staff

Munich Re aims to treat our staff and applicants fairly and responsibly; we value the loyalty of our employees and want to ensure that they are able to perform to the best of their ability. In addition to the aforementioned training and support programmes, we also offer a transparent salary system, extensive company healthcare management, as well as flexible working hours and conditions.

These elements are enshrined in various staff policies, such as internal company agreements in all fields of business in Germany, HR guidelines applicable worldwide in reinsurance, MEAG's staff handbook in Germany, as well as international HR standards and processes for recruitment and selection at ERGO. At Munich Re, our remuneration rules are set out in a Group-wide policy.

On 1 January 2020, we launched a new and forward-looking concept for remuneration and performance management in global reinsurance. Munich Re's IFRS result is now the single applicable KPI worldwide for variable remuneration, and thus for staff participation in the business's success. We have been strengthening staff agility and autonomy through regular performance management dialogue – called Continuous Conversations – on individual commitment, feedback and development, and are focusing on staff cooperation. Implementation is being supported by broad international measures, for example LinkedIn Learning paths specifically selected by experts, with recommended courses on specific topics, team workshops, a strength-based self-assessment test, and regular staff surveys.

In 2020, we surveyed all staff in reinsurance and at MEAG and gave them the opportunity to help design new ways of working in the organisation. The survey found that staff were highly satisfied and extremely willing and able to perform.

Even in 2020, which was overshadowed by the coronavirus pandemic, Munich Re showed itself to be a reliable and responsible employer. We neither had to apply for the short-time work scheme in Germany, nor did we accept government aid in other countries. The health and safety of our staff has remained our top priority in these times of COVID-19, and we have enabled our staff to work from home whilst restricting our on-site operations, which are subject to strict hygiene rules. Online portals and tools have kept staff and management up to date in all fields of business, and continue to offer tips and support on working and managing from home. Our Emergency Management Team and Human Resources ensured that our global business activities were able to shift to working from home and then gradually returning to the premises over the summer of the reporting year, all the while closely monitoring infection rates.

Munich Re supports its staff who wish to benefit society. It does so through its non-profit charity, the Schinzler Foundation. The Foundation gives active and retired Munich Re staff the opportunity to volunteer on a multitude of projects in the areas of children and youth, culture, charitable work, health, environment, and science. Munich Re enables such corporate volunteering through special leave. To overcome international social implications of the coronavirus pandemic, Munich Re organised a global fund-raising campaign entitled "Together we care" and matched the amounts raised by staff; the donations were transferred to two major international organisations and various local initiatives.

Our great staff loyalty is demonstrated by an average length of service of 13.8 (13.6) years at Munich Re and 14.5 (14.6) years at Munich Reinsurance Company. Staff turnover is very low, with a voluntary turnover rate of 3.5% (5.0%). The rate for Munich Reinsurance Company itself is 1.6% (1.6%).

Diversity as a strategic success factor

Our goal at Munich Re is to create an optimal environment which, based on our various backgrounds and experience, makes the most of and strengthens the potential of all our staff. Munich Re is composed of staff from over 60 different countries working at over 50 different locations worldwide.

Our Group-wide human resources unit develops our diversity strategy. The human resources departments in the various fields of business then ensure that the initiatives are duly implemented at our different locations.

The topic of gender issues includes creating a suitable framework for balancing family and careers, as well as various measures promoting women in the workplace. This encompasses mentoring programmes, coaching, networks for women and fathers, and tailored working models that incorporate part-time and parental leave. In order to also make its sales organisations more attractive for women, ERGO maintained its “Women in Sales” project in 2020.

At 26.1%, Munich Re exceeded the DAX 30 companies’ self-imposed goal of increasing, by the end of 2020, the number of women in management positions in Germany to 25%; we are now aiming for 40% across the Group worldwide by 2025 through our Ambition 2025. Further information on women in management in the 2020 financial year can be found in the Statement on Corporate Governance in accordance with Sections 289f and 315d of the German Commercial Code, in the section entitled Equal participation of men and women in management positions.

Women currently constitute 52.9% (53.1%) of our workforce across the Group. The percentage of women in senior management positions (first and second management levels) is 30.0% (30.1%) worldwide. The percentage of women in the overall workforce at Munich Reinsurance Company is 44.4% (44.6%), and in senior management (first and second management levels) the figure is 20.6% (18.2%).

Our various talent programmes focus on sufficient diversity. This was again very clearly demonstrated in 2020. The percentage of women in the Group Management Platform was 31% (28%), and 42% (42%) have an international background. The percentage of women participating in the reinsurance group’s global talent programme, Hydrogen, is 38% (43%); approximately 82% (79%) of the participants are from the International Organisation.

In 2020, further measures were implemented to strengthen diversity and inclusion. To celebrate the global initiative World Day for Cultural Diversity, 23 companies in 17 countries participated in the ERGO Digital Diversity Map, which gave an overview of the various local diversity activities and included 53 videos from around the globe. In addition, a number of networks have been established in the Group, in which staff of different sexual orientations and gender identities, as well as staff who are disabled, affected by illness or otherwise committed to the issues concerned, can meet to exchange ideas. In the USA and Canada, webinars are being offered together with external partners to promote inclusion and social change.

Fighting corruption and bribery

There is zero tolerance for corruption or bribery at Munich Re; we have therefore implemented internal processes that are designed to identify and appropriately sanction any hint of such activities. At Group level, fighting corruption is the responsibility of Group Compliance & Legal, which lays the foundation for a consistent approach across the Group. Combatting corruption is an essential component of Munich Re’s Compliance Management System (CMS), which constitutes the methodical framework for the key compliance function under Solvency II, and has been permanently established across the Group. In addition, due to its international activities, Munich Re is also subject to foreign laws such as the UK Bribery Act or the Foreign Corrupt Practices Act in the United States. Applying the “Prevent, Detect, Respond” approach, Munich Re’s compliance programme to fight corruption has been implemented on the basis of recognised, risk-based standards. The implementation of processes and structures is geared to allow a full investigation of any violations that may occur despite our reasonable measures, to sanction such violations appropriately, and to ensure that they cease.

Code of Conduct

On the basis of our revised Code of Conduct, which took effect in 2018, all staff are required to act responsibly, transparently, honestly and dependably. Staff must disclose conflicts of interest, in order to allow them to be professionally and fairly resolved. Staff may neither accept nor offer bribes. Staff in reinsurance are required to take mandatory training about the Code of Conduct and specifically on preventing corruption; compliance training is mandatory at ERGO and MEAG as well. At ERGO, the training is provided to all staff in Germany in the form of an online course on the Code of Conduct. All Board members and other executive staff at ERGO in Germany must also attend a mandatory classroom seminar on compliance, which builds on the online programme. Training measures have also been introduced at the various ERGO branches abroad.

In the Group-wide Code of Conduct, the Chairman of our Board of Management has underlined the importance of our compliance culture, which protects Munich Re’s reputation and ensures that we pursue our corporate objectives based on our values. Our managers bear a particular responsibility for ensuring compliance with our legal standards, embodying our core principles, and thereby creating a tangible compliance culture.

The Code of Conduct and associated guidelines contain rules about the appropriate handling of invitations, gifts, donations and sponsorship, as well as on interacting with public officials. Facilitation payments are explicitly prohibited.

The rules of our Procurement Policy also serve to prevent conflicts of interest. Moreover, our Code of Conduct addresses money-laundering issues. The companies that are subject to the German Money Laundering Act (GWG) have been set up accordingly; officers responsible for money laundering issues, and their deputies, have been appointed where required. ERGO and MEAG have set up their own anti-money-laundering policies, containing fundamental rules for staff in Germany on preventing money laundering and terrorist financing.

In 2013, ERGO adopted the German Insurance Association's Code of Conduct for the marketing of insurance products. Among other provisions, the Code contains measures prohibiting corruption and bribery, and ERGO's effective implementation thereof is regularly confirmed by external auditors.

In addition, ERGO has its own Code of Conduct for independent agents. It contains the main principles of cooperation and a common understanding of how to work with customers and brokers.

Prevention and discovery

Our minimum standards on preventing corruption have been summarised in our Guideline on prevention of corruption and rules for gifts and hospitality, applicable across the Group since 1 November 2020.

In accordance with the "know-your-customer" principle, sufficient information about our business partners, their background, and about the purpose and legitimacy of the intended business deal must be available before concluding any transaction. In addition, when choosing whom we do business with, we make sure that any potential direct business partners comply with laws and regulations, and act responsibly. The know-your-customer principle also includes a transparent and documented selection process for service providers and suppliers, as well as the conduct of due diligence reviews of business partners who act on Munich Re's behalf. Anti-corruption clauses, which to date were mandatory only in contracts valued at over €1m in the reinsurance field of business, have been required in all contracts with service providers and suppliers since 1 November 2020.

At ERGO, too, an anti-corruption agreement or clause must be concluded with every supplier and service provider, regardless of the contract value.

Munich Re staff are required to inform their superiors, or the responsible internal officer, if they learn of any breach of anti-corruption rules. In addition, staff may consult the company ombudsman or use the electronic whistleblower portal to report any activity they have witnessed.

Compliance reporting

Our compliance reports are issued to Munich Reinsurance Company's Board of Management and its Supervisory Board's Audit Committee on a regular and ad-hoc basis. The reports include updates about the implementation of our CMS regarding anti-corruption or compliance issues, the results of special audits, and any measures undertaken, such as the imposition of sanctions for breaches. A reporting line from the Munich Re companies to our Group Compliance & Legal unit has been set up for this purpose. Any serious breach of the law or important internal rules by a Group company is to be reported immediately, with updates every six months. In such cases, the Munich Re company in question also issues a corresponding report to local management and the supervisory bodies.

In the 2020 reporting year, our compliance reporting recorded no breaches of anti-corruption legislation or corresponding official proceedings, anywhere in the world.

Data protection

Due to the nature of its business, Munich Re comes into contact with a large amount of data. Protecting this data is important, especially given the fact that increasing digitalisation means that many business processes include personal information. Munich Re's reputation, and the trust of our business partners, are based on our compliance with data protection rules. For this reason, Munich Re has implemented data protection management systems in each of its fields of business. Each system takes into account the particularities of the respective field, and includes rules, processes and measures to systematically monitor and control how we handle personal data. The goal is to ensure a high standard of data protection across the Group, and to avoid fines being incurred.

The main rules for Munich Re are contained in the Code of Conduct and in various data protection and information security norms, which are specific to each field of business and mandatory for all staff. The norms are based mainly on the EU General Data Protection Regulation (GDPR) for Group companies situated in the EU/EEA. Based on these norms, Munich Reinsurance Company, ERGO and MEAG have each adopted a data protection policy covering their activities, which together ensure a consistent, mandatory level of protection across those fields of business. Binding Corporate Rules at all locations worldwide aim to ensure an appropriate level of data protection for our intra-Group communications with with reinsurance companies domiciled outside the EU/EEA. The Binding Corporate Rules were updated in 2019 and are pending approval with the responsible authorities.

Munich Reinsurance Company's Data Protection Officer also acts as Group Data Protection Officer for the companies of the reinsurance field of business within the EU/EEA. The only exceptions are our UK subsidiaries, which, in view of Brexit, have appointed a data protection officer of their own, and Great Lakes Insurance SE. Among other tasks, the Group Data Protection Officer aims to ensure uniform compliance with the guidelines across the EU/EEA, monitors the legality of IT-supported data processing, advises the respective companies on their duties under the applicable rules, answers staff questions about data protection, and acts as a first point of contact in communications with the supervisory authorities. The Officer reports at least once a year to Munich Reinsurance Company's Board of Management about material data protection issues and improvements to the data protection management system. MEAG and ERGO have each appointed their own Data Protection Officers, who have corresponding responsibilities and obligations.

Given its accountability, Munich Reinsurance Company has developed its own IT tool to ensure compliance with data protection rules. This "Compliance Web" is designed to use a defined process to automatically submit all IT-supported processing of personal data to IT Security and the Data Protection Officer beforehand. This allows every new or changed data processing task to be documented, checked for compliance with the legal norms, and regularly monitored. The tool also allows us to identify and track, with the help of a privacy impact assessment, any data processing that entails a high risk to a person's rights or freedoms. ERGO also began implementing the tool in 2020.

Munich Re staff receive regular training on the GDPR with the aid of e-learning programs. All new staff are also required to take the e-learning program during their induction periods. Moreover, division-specific online courses were added in 2020.

In 2020, no material data protection event defined in the Solvency II Group Compliance Policy occurred anywhere in our Group worldwide, nor were any material proceedings for breach of data protection rules initiated.

Tools of corporate management and strategic financial objectives

Munich Re's management philosophy – Based on value creation

The aim of Munich Re's entrepreneurial thinking and activity is to analyse risks from every conceivable angle and to assess and diversify them, creating lasting value for shareholders, clients, and staff in relation to the risks assumed. This is the aim of our active capital management and the consistent application of value and risk-based management systems.

The framework for any business activity is our risk strategy, from which we derive various limitations and reporting thresholds. A key element is our economic capital resources, which we determine in accordance with the Solvency II supervisory regime. We observe a range of important additional conditions. These include national accounting regulations, tax aspects, liquidity requirements, supervisory parameters, and rating agency requirements.

Our value-based management is characterised by the following aspects:

- Risk capital, i.e. the capital required to cover the risks, is the basis of our value- and risk-based management. The capital requirement corresponds to the solvency capital requirement under Solvency II, as determined on the basis of our certified internal risk model. Information on the internal model is provided in the risk report, in the section Risks depicted in the internal model.
- Consequently, business activities are assessed not only according to their earnings potential, but also relative to the extent of the risks assumed. Only the risk-return relationship reveals how beneficial an activity is from the point of view of our shareholders.
- With value-based corporate management tools, we ensure an economic valuation and the comparability of alternative initiatives.

Contrasting aspects have to be evaluated when selecting suitable target figures. On the one hand, the often-complex economic realities should be reflected as closely as possible in order to emphasise added value as the Group's overriding guiding principle. On the other hand, target figures should be straightforward and understandable for investors, staff, and the public.

The Group's corporate management tools

Our key corporate management tools at Group level are economic earnings and the IFRS consolidated result. Together with the other tools of corporate management, they constitute the most important financial indicators of relevance for us.

Economic earnings

The starting point for value-based management is the economic value added, which we determine based on the key corporate management tool of economic earnings. These correspond with the change in eligible own funds under Solvency II, adjusted for items that do not represent economic value added – such as capital measures, and the change in regulatory restrictions.

In particular, economic earnings comprise the contribution to profits from our new business, and changes in the value of in-force business against the previous year's assessment on account of technical factors. The development of eligible own funds is also considered because of the effect of capital market parameters on the assets and liabilities sides of the solvency balance sheet.

With respect to the management of economic value added, we use conceptually consistent value-based and risk-capital-based measurement approaches that are individually geared to the characteristics of each respective field of business. Our approach for property-casualty reinsurance is the adjusted result, which comprises the anticipated discounted cash flows of underwriting and an adjustment for major claims. In life and health reinsurance, we apply value added by new business and the change in value of in-force business, which are based on the solvency balance sheet. As part of our asset-liability management, we consider the excess return from our investment operations in reinsurance. The management tool of economic earnings is used directly for ERGO.

IFRS consolidated result

We use the IFRS consolidated result as a standardised, accounting-based benchmark for the Group and its fields of business. The standardised approach of the IFRS consolidated result makes it easier for outsiders to understand and interpret the information in it; as such, it is a pivotal part of our financial reporting in capital markets.

Other performance indicators

Gross premiums written

Gross premiums written comprise all premium income due for payment in a financial year. Increases in gross premiums written are the prime indicator of corporate growth at the Group and segment levels. However, increases in this performance metric are not an inherently meaningful target for our Group, as we must always consider premium growth as it relates to the profitability of the business we write.

Combined ratio

The combined ratio is regularly posted for property-casualty business. Calculated as the percentage ratio of the sum of expenses for claims and benefits plus operating expenses to earned premiums (all of which are net, i.e. after reinsurance cessions), the combined ratio is the sum of the loss ratio and the expense ratio. A combined ratio of 100% means that premium income was exactly sufficient to cover claims and costs. [1]

When regarded in isolation, the combined ratio is not a sufficiently convincing metric because it does not make it possible to assess economic profitability. It is also only of limited suitability for comparing the financial performance of competitors owing to differing calculation methods and portfolio mixes. Generally, we aim to keep the combined ratio as low as possible by means of good underwriting and claims management.

Technical result in life and health reinsurance including the result from insurance contracts with non-significant risk transfer

Owing to the long-term nature of business in life and health reinsurance, the combined ratio used in property-casualty insurance is only of limited use in this segment. We therefore track and post the technical result for life and health reinsurance. It shows the contribution made directly to the IFRS consolidated result and separates income derived from investment risk-taking from reinsurance business in particular. Some reinsurance operations are disclosed separately from the underwriting result owing to non-significant risk transfer. This part of the business and its contribution to the consolidated result is a further performance indicator for the life and health reinsurance segment.

Return on investment (RoI)

This is a key indicator of investment performance for Munich Re, on the basis of external reporting. It is derived from the investment result and the average market value of our investment portfolio – including off-balance-sheet unrealised gains and losses, but excluding owner-occupied property and insurance-related loans.[2]

Strategic financial objectives as part of our Ambition 2025

Munich Re publishes further performance indicators within the framework of its multi-year result ambition. Given the longer time horizon of several years and the greater uncertainties related to this, the result targets published for these performance indicators take the form of anticipated corridors or minimum targets only.

Return on equity (RoE)

The RoE is an important profitability KPI, which is of relevance in particular in the medium term. It is calculated on the basis of the IFRS consolidated result in relation to the average IFRS equity at the beginning and end of the year. IFRS equity is adjusted for unrealised gains and losses and changes resulting from currency translation outside profit or loss and remeasurement gains/losses from cash flow hedges. The RoE is significantly influenced by the IFRS result. IFRS equity is affected by profits as well as by capital measures such as dividend payments and share buy-backs, in particular. The RoE is recognised for the Group and for the reinsurance and ERGO fields of business. The calculation of the RoE for the fields of business allows for further adjustments to equity in order to eliminate distortions attributable to intra-Group transactions. As part of the Ambition 2025, the RoE is to rise to 12–14% by 2025.

Earnings per share

The earnings per share figure reflects the IFRS consolidated result for a year in relation to the average number of outstanding shares at the beginning and end of the year. The earnings per share is essentially influenced by the IFRS consolidated result. The number of outstanding shares can change as a result of share buy-backs or other capital measures. Further information on the earnings per share is available under (52) Earnings per share in the Notes to the consolidated financial statements.The Ambition 2025 envisages an average rise of at least 5% p.a. in the earnings per share in the period 2021–2025.

1 Expenses for claims and benefits not taken into account in the calculation of the combined ratio are set out in the table Notes on determining the combined ratio in the Notes to the consolidated financial statements.

2 The calculation of the RoI is described in the investment result table in the section Business performance of the Group and overview of investment performance in the chapter Business performance.

Dividend per share

The dividend per share reflects the dividends paid for one year in relation to the number of dividend-bearing shares. The number of shares can change as a result of share buy-backs or other capital measures. The Ambition 2025 envisages an average rise of at least 5% p.a. in the dividend per share in the period 2021–2025; in years with particular claims expenditure, it should not be lowered at least.

Solvency ratio under Solvency II

The solvency ratio under Solvency II is the ratio of the eligible own funds to the solvency capital requirement. Information on solvency capital requirements and eligible own funds is available in the risk report. The solvency ratio is to remain in the optimum range of 175–220%.

Business performance

Overall assessment of the Board of Management on the business performance and situation of the Group

Munich Re generated a profit of €1.2bn in the reporting year; on 31 March 2020, owing to high uncertainty regarding the effects of COVID-19 we retracted the profit forecast of €2.8bn for 2020 we had set at the beginning of the financial year and postponed the 2020/2021 share buy-back programme announced in February 2020. In reinsurance, we posted pandemic-related losses totalling €3.4bn, of which €370m was attributable to life and health reinsurance and slightly over €3bn to property-casualty reinsurance. At ERGO, the negative impact arising from COVID-19 totalled €64m. Adjusted for the losses caused by the pandemic, the profit target of €2.8bn set at the beginning of the year would have been achieved.

In property-casualty reinsurance, the combined ratio was 105.6% (100.2%). Notwithstanding the very high claims expenditure due to COVID-19, we achieved a profit of €571m (1,562m) in this segment. In life and health reinsurance, the coronavirus pandemic also led to a drop in profits. The segment contributed €123m (706m) to the consolidated profit. The technical result, including business with non-significant risk transfer (which is not recognised in the technical result), amounted to €97m (493m).

We posted a profit of €517m (440m) in the ERGO field of business, thereby almost achieving our profit target of €530m defined at the beginning of the financial year – despite the negative impact of the pandemic. ERGO Property-casualty Germany and ERGO International enjoyed a year-on-year improvement in profits of €157m (148m) and €230m (105m) respectively.

The Group's investment result (excluding insurance-related investments) totalling €7,398m (7,822m) is equivalent to a return on investment of 3.0% in terms of the average market value of the portfolio. Munich Re was thus able to achieve its target return on investment of around 3% – in spite of the challenging conditions and high volatility prevailing on the capital markets.

Business performance of the Group and overview of investment performance[1]

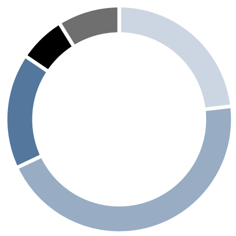
Key figures

		2020	Prev. year	Change
				%
Gross premiums written	€bn	54.9	51.5	6.7
Combined ratio				
Reinsurance property-casualty	%	105.6	100.2	
ERGO Property-casualty Germany	%	92.4	92.3	
ERGO International	%	92.7	94.3	
Technical result	€m	600	2,283	–73.7
Investment result	€m	7,398	7,822	–5.4
Result from insurance-related investments	€m	105	1,182	–91.1
Operating result	€m	1,986	3,430	–42.1
Currency result	€m	–200	73	–
Taxes on income	€m	–269	–483	44.2
Economic earnings	€bn	–2.2	7.4	–
Solvency II ratio	%	208.1	237.0	
Return on equity (RoE)[2]				
Group	%	5.3	11.7	
Reinsurance	%	4.1	13.3	
ERGO	%	8.8	7.4	
Consolidated result	€m	1,211	2,707	–55.3
Investments	€bn	232.9	228.8	1.8
Insurance-related investments	€bn	11.0	9.2	20.4
Net technical provisions	€bn	221.5	217.9	1.6
Equity	€bn	30.0	30.6	–1.9
Earnings per share	€	8.63	18.97	–54.5
Dividend per share	€	9.80	9.80	0.0

1 Previous year's figures adjusted owing to IAS 1 and IAS 8. See the section Recognition and measurement – Changes in accounting policies and other adjustments in the Notes to the consolidated financial statements.
2 Information on the calculation of this indicator can be found in the Notes to the consolidated financial statements, section Segment reporting, Notes on determining the return on equity (RoE).

Munich Re's gross premiums written, at €54,890m, were significantly higher year on year (51,457m). This was mainly due to organic growth in reinsurance.

Group premium income



Life and health reinsurance	23	(23)%
Property-casualty reinsurance	45	(43)%
ERGO Life and Health Germany	16	(18)%
ERGO Property-casualty Germany	7	(7)%
ERGO International	9	(10)%

Economic earnings are mainly attributable to factors from new and in-force business deriving from underwriting, and to the impact of capital market parameters on assets and liabilities. Although operational value creation was positive in all segments when adjusted for COVID-19 losses, both the high pandemic-related losses and the adverse fluctuations in capital markets led to negative economic earnings in the financial year. The depreciation of important foreign currencies against the euro, widening risk spreads on interest-bearing investments and the impact on profit or loss arising from downward trends in equity markets, particularly in Q1, significantly strained economic earnings.

The investment result (excluding insurance-related investments) decreased to €7,398m (7,822m). This was largely due to lower regular income and impairment losses on account of temporary price falls in equity markets in Q1. Conversely, the investment result increased owing to higher gains on the disposal of, above all, fixed-interest securities, equities and real estate, as well as an improved net balance of derivatives.

The currency result amounted to –€200m (73m), mainly driven by losses on the Canadian dollar and Russian rouble. Our effective tax rate was 18.2% (15.1%), which fell short of our expectations due to one-off effects for previous years.

Munich Re issued a subordinated green bond with a volume of €1.25bn in September. This bond will mature on 26 May 2041 and is callable for the first time in 2030. It pays a fixed rate of 1.25% p.a. until 26 May 2031, and a variable rate thereafter. The green bond meets the criteria for classification as regulatory Tier 2 capital under Solvency II, as well as the current requirements for full recognition as rating capital. In light of the repayment options provided by our outstanding subordinated bonds in 2021 and 2022, this issue allows us to optimise our capital structure.

Munich Re will use the raised capital to finance projects as defined in the Group's Green Bond Framework. For more detailed information, please see the section Corporate responsibility in insurance and investment in our combined non-financial statement.

Information on events after the balance sheet date can be found in the Notes to the consolidated financial statements, (51) Events after the balance sheet date.

Investment mix

	Carrying amounts		Unrealised gains/losses[1]		Fair values	
€m	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year
Land and buildings, including buildings on third-party land	6,539	5,989	5,592	5,600	12,131	11,589
Investments in affiliated companies, associates and joint ventures	3,372	2,847	1,584	968	4,841	3,646
Loans	51,944	52,507	12,778	12,147	64,722	64,654
Other securities available for sale	155,389	151,558	17,293	14,370	155,389	151,558
Thereof: Fixed-interest	138,404	132,120	14,426	10,738	138,404	132,120
Thereof: Non-fixed-interest	16,985	19,438	2,866	3,632	16,985	19,438
Other securities at fair value through profit or loss	2,927	2,781	0	0	2,927	2,781
Thereof: Derivatives	2,339	2,099	0	0	2,339	2,099
Deposits retained on assumed reinsurance	7,980	7,938	0	0	7,980	7,938
Other investments	4,800	5,144	0	0	4,800	5,144
Total	**232,950**	**228,764**	**37,247**	**33,085**	**252,789**	**247,310**

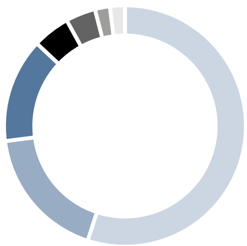
1 Including on- and off-balance-sheet unrealised gains and losses.

The fair value of our investment portfolio increased mainly as a result of falling interest rates, with negative effects coming most notably from the development of exchange rates and a smaller equity portfolio. Our portfolio continues to be dominated by fixed-interest securities and loans.

The increase in unrealised gains/losses on other fixed-interest securities available for sale and loans was chiefly attributable to the lower interest-rate level.

Fixed-interest portfolio by economic category[1]

Total: €215bn (208bn)



Government bonds[2]	55	(53)%
Thereof: Inflation-linked bonds	7	(8)%
Covered bonds	18	(21)%
Corporate bonds	14	(13)%
Cash/Other	5	(5)%
Policy and mortgage loans	4	(4)%
Structured products (credit structures)	2	(2)%
Bank bonds	2	(1)%

1 Presentation essentially shows fixed-interest securities and loans, including deposits and cash at banks, at fair value.
2 Including other public-sector issuers and government-guaranteed bank bonds.

At the reporting date, over half of our portfolio of interest-bearing securities was invested in government bonds. The vast majority of these continue to come from countries with a high credit rating. The fair value of our German and US government bond holdings came to 13.1% (12.8%) and 9.2% (8.8%) of the total portfolio of interest-bearing securities. Italian and Spanish government bonds each accounted for around 0.8% (0.8%) and 1.9% (2.3%) of the portfolio of interest-bearing securities. Our new investments in the reporting year were mostly in Australian and US government bonds. We reduced our bond holdings mainly from issuers in the United Kingdom and Spain in the reporting year. The purchase of government bonds from emerging markets is part of our balanced investment strategy. They constituted 9.2% of our government bond portfolio.

At around 32%, our investment in covered bonds remained focussed on German securities. We also held bonds from France (21%) and the United Kingdom (10%) in our portfolio.

The regional weighting of corporate bonds in our portfolio was 33% for the USA and 39% for the eurozone.

Our portfolio of government bonds, covered bonds and corporate bonds had a good rating structure: as at 31 December 2020, some 81% of securities were rated AAA to A.

Our investment in bank bonds is limited and at the reporting date amounted to 2% of our portfolio of fixed-interest securities. Financial instruments from states in southern Europe made up 5% of this portfolio. Most of our bank bonds were senior bonds (91%), i.e. bonds that are not subordinated or subject to loss participation. Subordinated bonds and loss-bearing bonds made up 9% of our bank bond holdings.

The portfolio of structured credit products at fair value totalled 2% of the overall portfolio of interest-bearing securities as at the reporting date. This asset class is composed of securitised receivables (asset-backed securities or mortgage-backed securities), e.g. securitisations of real estate finance or consumer credit. Around 52% of our structured credit products had a rating of AAA.

The carrying amount of our equity portfolio decreased as a result of the sale of equities and the overall negative market development. Our equity-backing ratio (before taking derivatives into account, and including investments in affiliated companies, associates and joint ventures at fair value) came to 6.4% (7.1%) at the end of the year. The equity-backing ratio including derivatives was 6.0% (6.4%). Besides this, we protect ourselves against accelerated inflation in an environment of continuing low interest rates by holding inflation-linked bonds with a fair value of €8.5bn (8.6bn). Real and financial assets such as shares, real estate, commodities, and investments in infrastructure, renewable energies and new technologies also serve to guard against inflation. Additionally, our investments in real and financial assets have a positive diversification effect on the entire portfolio. The increase in our real estate portfolio is largely explained by the acquisition of a high-rise office building in New York City in Q1 2020.

Investment result[1]

	2020	RoI[2]	Prev. year	RoI[2]
	€m	%	€m	%
Regular income	6,273	2.5	6,751	2.8
Write-ups/write-downs of non-derivative investments	–1,957	–0.8	–309	–0.1
Gains/losses on the disposal of non-derivative investments	3,698	1.5	2,779	1.1
Net balance of derivatives	74	0.0	–717	–0.3
Other income/expenses	–690	–0.3	–681	–0.3
Total	**7,398**	**3.0**	**7,822**	**3.2**

1 Details of the result by type of investment are shown in the Notes to the consolidated income statements, (34) Investment result.
2 Annual % return on the mean value of the investment portfolio (RoI) measured at market value as at the quarterly reporting dates. The overall investment portfolio used to determine the return for 2020 (3.0%) was calculated as the mean value of the investment portfolios (carrying amounts) as at 31 December 2019 (€228,764m), 31 March 2020 (€227,949m), 30 June 2020 (€230,080m), 30 September 2020 (€232,252m) and 31 December 2020 (€232,950m), and the off-balance-sheet unrealised gains and losses (excluding owner-occupied property and insurance-related loans) as at 31 December 2019 (€18,546m), 31 March 2020 (€19,246m), 30 June 2020 (€19,778m), 30 September 2020 (€19,676m) and 31 December 2020 (€19,839m).

Regular income decreased on the previous year, primarily due to lower interest and dividend income. The average reinvestment yield[1] in the financial year was 1.5% (2.1%). Due to the low interest rates in the reporting year, yields on new investments remained lower than the average return on our existing portfolio of fixed-interest investments.

We posted considerably higher net write-downs of non-derivative investments because – in the first quarter in particular – our equity portfolio had been affected by heavy price falls on the stock markets on account of the impact of the coronavirus pandemic.

Gains on disposal were higher overall than in the previous year, and chiefly related to our portfolio of fixed-interest securities and equities, as well as Q1 and Q4 gains from the disposal of real estate.

We posted a net profit from write-downs and write-ups of derivatives and from the disposal of derivatives, primarily due to gains on interest-rate derivatives, which compensated for losses on equity and credit derivatives held for hedging purposes.

1 The average reinvestment yield is shown as an annual rate of return. All reinvestments that are transacted in a specific reporting period and have remaining terms to maturity of more than one year are recognised at the rates of return applicable at the relevant trade dates; for securities with terms to maturity of up to one year the proportionate term to maturity is taken into account. Investments whose return cannot be calculated (e.g. equities, debt securities with variable rates, inflation-linked bonds, derivatives, real estate) or which do not have the characteristics of investments (e.g. cash at banks) are not included. Hedging costs for securities in foreign currency are not considered.

Result from equities and equity derivatives[1]

€m	2020	Prev. Year
Regular income	735	748
Write-downs	–1,750	–311
Realised gains/losses	1,077	1,037
Result from equities	**62**	**1,475**
Change in on-balance-sheet unrealised gains and losses in equity (gross)	–766	1,814
Result from equity derivatives	–425	–927
Total	**–1,129**	**2,362**

1 To determine the total annualised return on our equity portfolio (see text), we calculate the ratio of the total result shown in the table and the mean value of the following figures: Equity portfolio (carrying amounts) as at 31 December 2019 (€19,438m), 31 March 2020 (€15,323m), 30 June 2020 (€15,568m), 30 September 2020 (€16,068m) and 31 December 2020 (€16,985m).

The return on equities was adversely affected by impairment losses and the impact of the fall in valuation reserves in Q1. The return on our equity portfolio including equity derivatives decreased to –6.8% (13.0%).

Reinsurance – Life and health

Key figures

		2020	Prev. year	Change
				%
Gross premiums written	€m	12,707	11,716	8.5
Share of gross premiums written in reinsurance	%	34.0	34.7	
Technical result incl. result from reinsurance treaties with non-significant risk transfer	€m	97	493	–80.3
Investment result	€m	846	1,097	–22.9
Operating result	€m	225	849	–73.5
Consolidated result	€m	123	706	–82.6

Premium

Year-on-year growth in premium primarily derived from Europe and Asia, and to a lesser extent also from North America. The increase in premium in Europe was aided by the conclusion of two new longevity treaties, one of which was written outside the United Kingdom for the very first time. The ongoing strong demand for financially motivated reinsurance also contributed to the development in premium income.

Given that we generate the majority of our business in foreign currencies, fluctuations in exchange rates have a significant impact on premium development. If exchange rates had remained unchanged, our gross premiums written would have increased by 10.1% compared with the previous year.

Result

The technical result of only −€78m (365m) was significantly below our original expectations for the year, mainly owing to claims expenditure resulting from the COVID-19 pandemic.

Overall, losses attributable to COVID-19 totalled €370m. This figure comprises losses incurred in the reporting year; it does not include provisions for losses that may be incurred in 2021. The expenditure is dominated by mortality covers in the USA. In the United Kingdom, losses in mortality business that were attributable to COVID-19 were offset by positive effects in our longevity business. Likewise, in Canada part of the expenditure was compensated for by lower benefit payments in health business. In total, the negative impact on the result was in the low double-digit million euro range. Australian disability business was also slightly impacted by claims notifications. As claims may be reported to us with delay, we recognised additional provisions. Expenditure in Africa was a single-digit million amount. We did not post significant COVID-19-related losses in continental Europe and Asia.

Following several years of favourable loss experience, we saw higher mortality in our US portfolio in 2020, even when adjusted for COVID-19 effects. This circumstance is consistent with the population mortality observed. We are of the opinion that this may be at least partially an indirect consequence of COVID-19.

Our global annual review of provisions also had a decreasing impact on the underwriting result. This includes the adjustment of our provisions for outstanding claims to interest-rate levels.

By contrast, we achieved a good result overall in Europe. Despite a high individual loss in mortality business, in Asia too we posted an overall result that was within our expectations, primarily owing to a high result contribution from our health business. Adjusted for COVID-19, the performance of our Australian business was somewhat better than expected; among other things, we benefited from price adjustments granted retroactively as well as from fewer lapses than anticipated in 2019. By contrast, claims expenditure was above our expectations.

Moreover, the development of new business also had a positive impact on the result.

The result from reinsurance treaties with non-significant risk transfer continued to perform very favourably. Thanks to growth in new business, above all in Asia and the USA, the result of €175m was significantly up on the previous year's figure (€128m) and in excess of our expectations. Business performance was not influenced by COVID-19, thus reaffirming its stabilising effect on the aggregate result.

The investment result was down €252m on the previous year; the decline is mainly attributable to lower gains on the disposal of fixed-interest securities.

Our individual core markets

Based on premium volume, around 40% of our global reinsurance business is written in North America, with the USA accounting for approximately 25% and thus ranking before Canada. Around 25% of our premium stems from Europe – with approximately 10% generated in the United Kingdom and Ireland, and about 5% in Germany. Another significant share of around 25% stems from Asia and the MENA region. Australia and New Zealand contributed around 5% to premium income. We are also well positioned in Africa and Latin America, but due to the small size of these markets, their share of our global business is modest (less than 5% in total).

Gross premium in the USA increased by 2.7% to around €2.9bn (2.9bn). We therefore continue to be one of the most important reinsurers in this market, which is the largest worldwide. The segment's technical result fell short of expectations chiefly on account of COVID-19-related loss expenditure, additional negative mortality and reserving effects attributable to the US portfolio. We continue to be very satisfied with the development of our new business, both in terms of volume and profitability.

In Canada, we also posted an increase in premium income to €1.8bn (1.7bn), thereby retaining our leading market position in traditional business. The technical result, in turn, accounted for an over-proportionate contribution to the overall result, even though it did not fully reach the previous year's level, partly owing to COVID-19.

Premium income was extremely gratifying in Europe, where it totalled €3.3bn (2.8bn), with €1.5bn (1.8bn) stemming from the United Kingdom and Ireland, and a further €715m (597m) from Germany. This growth was bolstered by financially motivated reinsurance and the expansion of our longevity business. The technical result was higher than expected, in particular owing to favourable claims experience in continental Europe.

In Asia/MENA, our premium income climbed to €3.4bn (3.0bn). New business continued to perform very well. Thanks to our broad diversification, we are in a position to benefit from the region's growth potential. The technical result continued to develop favourably and was within our expectations – despite a major loss.

Premium generated by our business activities in Australia and New Zealand was up slightly to €824m (808m), benefiting from the impact of premium increases under contracts in force. Our main focus here remains the rehabilitation of our existing portfolio. The technical result – adjusted for COVID-19-related losses – slightly exceeded our expectations. We profited from positive effects from our rehabilitation measures and from fewer lapses than we had anticipated in 2019. By contrast, claims expenditure was higher than we expected.

Reinsurance – Property-casualty

Key figures

		2020	Prev. year	Change
				%
Gross premiums written	€m	24,615	22,091	11.4
Share of gross premiums written in reinsurance	%	66.0	65.3	
Loss ratio	%	74.7	66.6	
Thereof: Major losses	Percentage points	20.8	15.2	
Expense ratio	%	30.9	33.6	
Combined ratio	%	105.6	100.2	
Technical result	€m	–171	1,157	–
Investment result	€m	2,347	2,220	5.7
Operating result	€m	759	1,764	–56.9
Consolidated result	€m	571	1,562	–63.4

Premium

Premium income in property-casualty reinsurance increased by 11.4% compared with the previous year. Changes in exchange rates had a negative impact on premium development. Approximately 11% of the portfolio is written in euros and 89% in foreign currency, of which 55 percentage points is in US dollars and 11 percentage points in pounds sterling. If exchange rates had remained the same, premium volume would have risen by 13.1% year on year.

The substantial increase in premium volume was due to an expansion of business across almost all lines and regions. The main drivers were the expansion of, and new business with, selected clients in North America and selective growth in continental Europe, in the United Kingdom, and in Asia and Australia. Fire and liability were the primary sources of growth.

Reinsurance treaty renewals in 2020 saw prices rise in regions affected by natural catastrophes. In other markets and lines of business, prices remained stable or increased slightly. Despite high losses from natural catastrophes in the previous year, the supply of reinsurance capacity remained high during the 2020 renewals. In the renewals for 2020, prices rose by approximately 1.8%. Overall, we adhered to our profit-oriented underwriting policy.

Result

The consolidated result and the operating result in property-casualty reinsurance deteriorated considerably compared with the previous year, in particular owing to losses in cancellation-of-events business resulting from COVID-19. Expenditure for major losses was up, and the technical result declined significantly on the previous year. Adjusted for commissions, Munich Re's customary review of provisions resulted in a reduction in the basic claims provisions for prior years of around €938m for the full year, which is equivalent to around 4.2 percentage points of the combined ratio. This positive development related to almost all lines in our portfolio. The safety margin in the provisions remained unchanged year on year.

Major losses – in excess of €10m each – totalled €4,689m (3,124m) in 2020, after retrocession and before tax. This amount includes run-off profits and losses for major claims from previous years, and is equivalent to 20.8% of net earned premium. As a consequence of COVID-19, the expenditure is much higher than in the previous year, and exceeds our major-loss expectation of 12% of net earned premium. Apart from COVID-19-related losses, 2020 was by and large a normal claims year.

At €3,784m, man-made major losses were much higher than in the previous year (€1,071m). This figure is equivalent to 16.8% (5.2%) of net earned premium. Owing to COVID-19-related burdens, the number of losses above the major-loss threshold was much higher than in previous years. COVID-19 resulted in claims expenditure in many lines of business – amounting to around €3,066m in total – and particularly affected the cancellation-of-events and business interruption reinsurance lines.

Major losses from natural catastrophes totalled €906m (2,053m) for the full year 2020. This corresponds to 4.0% (10.0%) of net earned premium. The largest natural catastrophes of the year happened in the USA, the largest individual loss being Hurricane Laura, with anticipated expenditure in the region of €280m. There were also a series of thunderstorms and wildfires.

The combined ratio deteriorated significantly to 105.6% (100.2%) on account of higher major-loss expenditure in 2020. Paid claims and the change in claims provisions totalled €16,860m (€13,701m), along with net operating expenses of €6,978m (€6,910m), compared with net earned premiums of €22,566m (20,566m).

The investment result increased by €126m on the previous year, largely owing to an improved net balance of derivatives owing to gains on interest-rate derivatives and higher gains on the disposal of fixed-interest securities.

Our individual core markets and selected special lines

Based on premium volume, around 45% of our global property-casualty reinsurance business – including Risk Solutions – is written in North America. Around 35% of our premium comes from Europe, of which around half is generated in the United Kingdom. Further substantial shares are contributed by Asia (about 10%), Australia/New Zealand (approximately 5%) and Latin America (approximately 5%).

Prices in the US market improved significantly on account of the many loss events. Owing to hurricanes, tornadoes and wildfires, major natural catastrophe losses exceeded the long-term average in 2020. In 2020, we saw growth with selected clients in reinsurance and wrote additional profitable new business.

At Munich Reinsurance America Inc., we further optimised our reinsurance portfolio, in particular thanks to a more restrictive underwriting policy in liability business. This led to lower premium volume. We were in a position to expand our business in our newly combined primary insurance unit Munich Re Specialty Insurance (MRSI). Overall, premium volume totalling €4,138m was down on the previous year (€4,449m).

The premium income of the Hartford Steam Boiler Group (HSB Group) amounted to €1,179m (1,072m) and was once again up on the previous year. This increase is mainly attributable to growth generated not only by new products, but also with our core business. The result was very gratifying. American Modern also posted a rise in premium income to €1,252m (1,168m) owing to higher prices and new business. The result situation fell short of expectations owing to natural hazard losses, such as hurricanes, tornadoes and wildfires.

In Canada, we are represented by the Munich Reinsurance Company of Canada and Temple Insurance Company. Premium volume was expanded further thanks to good market conditions. The year's result was adversely affected by a local hail event in the province of Alberta.

Despite the still-difficult market environment, premium volume increased significantly year on year to €8,299m (7,234m) in the United Kingdom and in continental Europe. In many markets, the increase was driven by the targeted development of business with selected clients and additional profitable new business. The highest growth was achieved in the United Kingdom, Germany, Spain and Italy. In Germany, for instance, premium income rose to €752m (608m).

At our Swiss subsidiary, New Reinsurance Company Ltd. (New Re), business volume in the area of property-casualty increased markedly to €816m (542m). This growth benefited from the expansion of existing client relationships and profitable new business with traditional and structured products.

Premium income in Australia and New Zealand was expanded significantly to €1,073m (954m).

Premium in Japan was up appreciably year on year following two years of heavy losses; it totalled €578m (425m).

Business expanded greatly in China, where premium income amounted to €885m (682m).

India continued on its path to growth, with premium income climbing to €427m (367m).

In the Caribbean as well as in Central and South America, we still provide high capacity for the coverage of natural hazards, in particular windstorms and earthquakes. The increased demand owing to major losses from natural catastrophes (hurricanes, floods, earthquakes and wildfires) in recent years remained at a high level in 2020. We took systematic advantage of this situation to further improve our portfolio. This enabled us to grow the already high premium volume attained in recent years to €1,244m (1,232m) and to achieve a further margin improvement.

In agricultural reinsurance, we saw a decline in premium income to €397m (410m) in the North American market. Claims experience saw an amelioration compared with the previous year, but storm events in the USA had an adverse impact.

Supported by a positive market environment, total premium volume in marine business increased by around 14% to €1,165m (1,022m). The result was gratifying.

At €849m (787m), credit and bond reinsurance saw significant year-on-year growth in premium volume. Whilst traditional credit business posted a moderate rise, growth was mainly attributable to profitable new business in specialty and niche segments.

The market environment in direct industrial insurance is very attractive. The renewals in the North American market were marked by price increases. We were therefore able to substantially increase premium income in our direct facultative and corporate business, which was newly established in mid-2019, to €1,199m (906m). The result was gratifying.

Premium in aviation and space business grew appreciably to €734m (595m). In spite of the loss of earnings triggered by COVID-19, premium was up thanks to price increases, especially at the beginning of the year, in the wake of numerous major losses in the previous year. The result was gratifying.

Capital Partners offers clients a broad range of structured individual reinsurance and capital-market products, as well as parametric and derivative solutions to hedge against weather and other risks. These solutions are applied to clients from the agricultural sector as well. We also use Capital Partners' services for our own purposes in order to buy retrocession cover on the basis of our defined risk strategy. In the reporting year, we concluded client transactions worth more than €1.5bn in the area of structured reinsurance. In addition to a comprehensive traditional retrocession programme totalling US$ 600m, Capital Partners also placed two sidecar transactions worth around US$ 635m in the capital market on its own behalf.

ERGO Life and Health Germany

Key figures

		2020	Prev. year	Change
				%
Total premium income[1]	€m	9,687	10,232	-5.3
Gross premiums written	€m	9,030	9,238	-2.3
Share of gross premiums written by ERGO	%	51.4	52.3	
Technical result	€m	353	287	22.9
Investment result	€m	3,605	3,916	-7.9
Operating result	€m	448	389	15.2
Consolidated result	€m	130	187	-30.2

1 Total premium income includes not only gross premiums written, but also savings premiums for unit-linked life insurance and capitalisation products in accordance with the applicable statutory accounting guidelines.

Premium

For the ERGO Life and Health Germany segment, information about the German life, health and Digital Ventures operations is provided below. Approximately 59% of the segment's gross premiums written derives from the Health Germany division, around 32% from Life Germany and approximately 9% from Digital Ventures.

Gross premiums written in the segment were down in the 2020 financial year, owing to a COVID-19-related decrease in travel insurance. Positive development in Health Germany (especially in supplementary insurance) and Digital Ventures (above all in health insurance business), and growth from new products in Life Germany more than offset the planned portfolio reduction in Life Germany. The segment's total premium income was also down on the previous year.

Result

The technical result in the ERGO Life and Health Germany segment was up on the previous year, in particular because the previous year had been impacted by a one-off effect in Life Germany, and because of lower claims expenditure in Digital Ventures. The investment result was down year on year, mainly due to higher impairment losses on equities, above all in the Health Germany division. The negative impact was partly offset by an improved net balance of derivatives and higher gains on disposals. Overall, our hedging strategy proved effective in 2020's volatile capital market environment.

The decline in the consolidated result was attributable to a lower investment result and currency result.

Development of premium income and results by division

Life Germany

Key figures

	2020	Prev. year	Change
	€m	€m	%
Total premium income[1]	3,515	3,907	-10.0
Gross premiums written	2,858	2,913	-1.9
Technical result	23	-4	–
Operating result	232	133	75.1

1 Total premium income includes not only gross premiums written but also savings premiums for unit-linked life insurance and capitalisation products in accordance with the applicable statutory accounting guidelines.

Gross premiums written in 2020 were slightly down on the previous year. This was attributable in particular to lower regular premium income owing to the ongoing portfolio reduction, which could not be sufficiently offset by premium income from new products. Total premium income was significantly down on the previous year. The reduction was mainly due to a positive, one-off accounting effect of €346m in the previous year, which had arisen from a rate change. This effect also had a significant impact on new business. In terms of annual premium equivalent (see table below), which is the performance measure customary among investors, our new business volume saw a decrease which would have amounted to 4.4% without the one-off effect.

New business Life Germany

	2020	Prev. year	Change
	€m	€m	%
Regular premiums	180	198	–9.2
Single premiums	525	797	–34.1
Total	**705**	**995**	**–29.1**
Annual premium equivalent[1]	232	278	–16.3

1 The annual premium equivalent corresponds to the regular premium income plus 10% of single-premium volume.

The technical result increased substantially year on year, largely because the previous year had been impacted by a one-off effect. At €2,567m (2,368m), the investment result also improved slightly in the past financial year. The negative effects of the capital market environment were offset by higher gains on disposals and an improved net balance of derivatives. Overall, our hedging strategy proved effective in 2020's volatile capital market environment. To finance the additional interest reserve (ZZR – to be built up only in single-entity financial statements under German GAAP), we realised slightly higher valuation reserves in 2020 than in the previous year. The operating result grew significantly overall.

Health Germany

Key figures

	2020	Prev. year	Change
	€m	€m	%
Gross premiums written	5,372	5,560	–3.4
Technical result	225	224	0.5
Operating result	169	230	-26.6

Premium income grew by 2.8% in supplementary health insurance and by 1.3% in comprehensive health insurance. The increase in comprehensive cover was mainly due to a premium adjustment in private long-term care insurance. The growth in supplementary insurance was attributable to business not similar to life insurance, which increased by 9.7%. Premium growth in the Health Germany division was offset by a substantial fall in premium income from travel insurance, where gross premiums written dropped by 41.1% to €386m (655m) compared with the previous year. Travel business was hit particularly hard by the coronavirus pandemic due to travel restrictions and mass cancellations of leisure and business travel.

The technical result remained nearly constant despite COVID-19. The investment result fell to €1,041m (1,539m), especially due to higher impairment losses on equities amidst the volatile capital market environment. Overall, the operating result was down on the previous year.

Digital Ventures

Key figures

	2020	Prev. year	Change
	€m	€m	%
Gross premiums written	800	765	4.6
Technical result	104	67	55.4
Operating result	47	26	78.6

Gross premiums written were up year on year thanks to health insurance business, which saw 5.6% growth supported by our supplementary dental insurance plans. Gross premiums written in property-casualty business were also up, by 1.7%.

At 94.7% (93.4%), the 2020 combined ratio for property-casualty business was up 1.3 percentage points on the previous year, in particular on account of a higher expense ratio.

The technical result increased substantially compared with the previous year, mainly driven by a temporary reduction in claims expenditure for health insurance, and business growth in supplementary dental insurance. The investment result fell to –€3m (10m), chiefly on account of higher impairment losses on equities. Altogether, the operating result increased as a result of these developments.

ERGO Property-casualty Germany

Key figures

		2020	Prev. year	Change
				%
Gross premiums written	€m	3,677	3,500	5.1
Share of gross premiums written by ERGO	%	20.9	19.8	
Loss ratio	%	61.9	60.3	
Expense ratio	%	30.5	32.0	
Combined ratio	%	92.4	92.3	
Technical result	€m	294	303	–2.9
Investment result	€m	175	157	11.4
Operating result	€m	255	212	20.4
Consolidated result	€m	157	148	6.5

Premium

As regards premium income, our most important classes of business in the ERGO Property-casualty Germany segment were motor insurance and third-party liability insurance. They respectively accounted for around 19% and 17% of the gross premiums written.

Gross premiums written were significantly up on the previous year. The increase was mainly attributable to substantial growth (16.7%) in the other classes of business, in particular engineering and marine, and 6.8% growth in fire and property insurance. Growth in gross premiums written was also posted in third-party liability insurance (4.4%) and motor insurance (4.0%). By contrast, gross premiums written were down by 0.2% in legal protection insurance, and by 1.4% in personal accident insurance.

Result

The technical result remained nearly constant compared with the previous year, and was at a very good level despite the challenges posed by the COVID-19 pandemic. The slight decrease was mainly attributable to organic premium growth and favourable cost development. On the claims side, COVID-19-related losses from business closure and event insurance were partly compensated for by lower losses in personal lines business, especially in motor, and lower major losses, both from natural catastrophes and man-made.

The combined ratio for 2020 slightly exceeded the previous year's figure by 0.1 percentage points, and thus remained at a very good level. While the expense ratio improved considerably year on year, the 2020 loss ratio was adversely affected by COVID-19, among other factors. Paid claims and the change in claims provisions totalled €2,209m (2,025m), along with net operating expenses of €1,089m (€1,077m), compared with net earned premiums of €3,570m (3,362m).

The investment result increased compared with the previous year. An improved net balance of derivatives and higher gains on disposals more than offset higher impairment losses on equities in a volatile capital market environment caused by the coronavirus pandemic.

The consolidated result was up on the previous year thanks to an improved investment result and an increase in the other operating result.

ERGO International

Key figures

		2020	Prev. year	Change
				%
Total premium income[1]	€m	5,083	5,148	–1.3
Gross premiums written	€m	4,861	4,912	–1.0
Share of gross premiums written by ERGO	%	27.7	27.8	
Loss ratio	%	62.7	63.7	
Expense ratio	%	30.0	30.6	
Combined ratio	%	92.7	94.3	
Technical result	€m	202	171	18.2
Investment result	€m	425	430	–1.2
Operating result	€m	298	217	37.9
Consolidated result	€m	230	105	118.1

1 Total premium income includes not only gross premiums written but also savings premiums for unit-linked life insurance and capitalisation products in accordance with the applicable statutory accounting guidelines.

Premium

With regard to the segment's gross premiums written, property-casualty insurance accounted for around 56%, health for about 31% and life insurance for approximately 13%. Our biggest markets are Poland, accounting for approximately 31% of the premium volume, Spain (approx. 19%) and Belgium (approx. 18%).

Gross premiums written decreased marginally overall, chiefly owing to the sale of companies outside Germany as part of portfolio optimisation and negative currency effects. Adjusted for the sales and for currency effects, gross premiums written in the ERGO International segment would have increased by 2.3% year on year. The segment's total premium income was also slightly down on the previous year.

In international property-casualty business, gross premiums written were down 2.8% to €2,714m (2,791m). The decline was mainly attributable to the sale of companies outside Germany and negative currency effects from our business in Poland. We posted premium growth mainly in the Netherlands, Austria and Greece.

As a result of organic growth in our Spanish and Belgian markets, gross premiums written developed favourably in international health business, climbing by 6.0% to €1,509m (1,424m) in the financial year.

At €639m (698m), gross premiums written in international life insurance business were down by 8.4% on the previous year. Negative development in Belgium, where we stopped writing new business already in 2017, and a decline in new business in Austria due to COVID-19 contributed to this outcome. Total premium income was down by 7.8% year on year to €861m (934m).

New business Life International

	2020	Prev. Year[1]	Change
	€m	€m	%
Regular premiums	64	61	3.7
Single premiums	96	156	–38.5
Total	**159**	**217**	**–26.6**
Annual premium equivalent[2]	73	77	–4.9

1 Previous year's figures have been adjusted.
2 The annual premium equivalent corresponds to the regular premium income plus 10% of single-premium volume.

Result

The technical result improved compared with the previous year. Spanish health business and Belgian life business were the main drivers of this positive development. In Spain, the increase was partly attributable to premium growth. In Belgian life business, the previous year's figure had been affected by higher impairment losses on deferred acquisition costs owing to the low-interest-rate environment. In international property-casualty business, the technical result was down on the previous year, mainly on account of the disposal of our Turkish company in 2019.

In international property-casualty business, the combined ratio improved year on year. This included our biggest market, Poland, where the combined ratio decreased by 0.9 percentage points, and Austria, where it was down by 2.6 percentage points. We also posted an improved combined ratio in international health business, down 2.0 percentage points on the previous year. Paid claims and the change in claims provisions totalled €2,063m (2,107m), along with net operating expenses of €988m (€1,012m), compared with net earned premiums of €3,289m (3,309m).

The investment result was slightly down on the previous year. An improved net balance of derivatives and higher gains on disposals were offset by higher impairment losses and lower income.

Overall, the consolidated result increased substantially year on year, among other factors thanks to an improved technical result and a positive one-off effect from a merger of two shareholdings in India.

Financial position

Analysis of our capital structure

Our primary insurance and reinsurance operations have a significant influence on the structure of our balance sheet: as we have consistently geared our Group towards value creation in its core business, investments serve to cover technical provisions (76% of the balance sheet total). Equity (10% of the balance sheet total) and bonds classified as strategic debt (2% of the balance sheet total) are the most important sources of funds.

Development of Group equity

	31.12.2020	Prev. year	Change
	€m	€m	%
Issued capital and capital reserve	7,432	7,421	0.2
Retained earnings	13,568	12,804	6.0
Other reserves	7,683	7,510	2.3
Consolidated result attributable to equity holders of Munich Reinsurance Company	1,211	2,724	–55.5
Non-controlling interests	100	117	–14.4
Total	**29,994**	**30,576**	**–1.9**

Group equity was lower than at the beginning of the year. This was mainly attributable to a lower currency translation reserve, the dividend payout and the share buy-back programme. The decline was partly counterbalanced by our consolidated result and higher valuation reserves for fixed-interest securities.

Strategic debt

We define as strategic debt all financial instruments with the character of outside financing that do not have a direct link to our operative business. Strategic debt supplements our financial resources, is essentially designed to optimise the cost of capital, and ensures that we have sufficient liquidity at all times. We quantify our debt leverage to make our capital structure transparent. Debt leverage is defined as the ratio – expressed as a percentage – of strategic debt to the sum of Group equity and strategic debt. Our technical provisions are not considered, even though they are mostly available to us on a long-term basis as a source of financing for investment.

Debt leverage

		31.12.2020	Prev. year	Change
		€m	€m	%
Strategic debt[1]		5,320	4,172	27.5
Group equity		29,994	30,576	–1.9
Total		**35,314**	**34,748**	**1.6**
Debt leverage	%	15.1	12.0	

1 The main components of our strategic debt are subordinated liabilities, and bonds and notes issued (see the relevant sections of the Notes to the consolidated financial statements).

Munich Re's subordinated liabilities amounted to €5,047m (see the section Subordinated liabilities in the Notes to the consolidated financial statements). Of this sum, €4,883m were recognised as at the reporting date as eligible own funds pursuant to Solvency II. Under the supervisory regulations of Solvency II, subordinated liabilities are recognised as own funds provided that they are available at all times to cover losses on a going-concern basis.

Technical provisions

Reinsurance business accounts for approximately 35% of technical provisions; around 65% comes from primary insurance. In contrast to liabilities under loans and securities issued, we cannot foresee with certainty how high our liabilities from underwriting business will be and when they will arise. This applies especially to reinsurance. Whereas in property insurance a major portion of the provisions is generally paid out within two to three years, in life or liability insurance substantial amounts may still be due decades after the contracts were concluded. The currency distribution of our provisions reflects the global orientation of our Group. Besides the euro, our main currencies are the US dollar, pound sterling, the Canadian dollar and the Australian dollar.

Restraints on disposal

Since we are an international (re)insurance group, some of our financial resources are subject to restraints on disposal. Supervisory authorities in some countries, for example, require foreign reinsurers to establish premium and reserve deposits to the benefit of primary insurers, or set up trustee accounts or guarantees with certain financial institutions. At the reporting date, restraints on disposal applied to investments with a volume of €10.1bn (9.8bn). In addition, there were contingent liabilities. Information on these can be found in the Notes to the consolidated financial statements under (48) Contingent liabilities, other financial commitments.

Capital position

Through active capital management, we strive to ensure that Munich Re's capital satisfies all applicable standards. In addition to the capital requirements determined using our internal risk model, more far-reaching requirements by regulatory authorities, rating agencies and our key insurance markets must be met. The Solvency II ratio is a fundamental measure of Munich Re's capital strength. Further information on this ratio can be found in the risk report. We aim to ensure that our financial strength is such that it enables us to take advantage of profitable opportunities for growth, is not significantly affected by normal fluctuations in capital market conditions, and remains at a reasonable level even in the wake of major loss events or substantial falls in the stock markets. At the same time, we also define an appropriate level of Group own funds as one which does not lastingly exceed that which is required. Excess capital is returned to our shareholders via dividends and share buy-backs. In practice, capital repatriation comes up against limits because German commercial law (the German Commercial Code; HGB) forces our parent, Munich Reinsurance Company, to maintain the claims equalisation provision in local GAAP accounting at a level that exceeds the economic requirements. This restricts the revenue reserves and profit distribution possibilities, but stabilises results in years with high claims expenditure. As at 31 December 2020, Munich Reinsurance Company's claims equalisation provision totalled €10.0bn. Additional information can be found under Munich Reinsurance Company (information reported on the basis of German accountancy rules).

Between 2006 and 2020, we returned a total of €30.6bn to our shareholders. The Board of Management approved another share buy-back programme in February 2020. Given the uncertainty as a consequence of the coronavirus crisis, this programme was initially put on hold on 31 March 2020, before a definitive decision was taken on 20 July 2020 not to implement the programme. During the reporting year, we bought back shares with a total volume of €340m.

Information in accordance with Sections 315a(1) and 289a(1) of the German Commercial Code (HGB) and explanatory report of the Board of Management

Composition of the subscribed capital

As at 31 December 2020, Munich Reinsurance Company's share capital of €587,725,396.48 was divided into 140,098,931 registered, no-par-value, fully paid shares. The rights and obligations deriving from these shares follow from the applicable statutory requirements and the Company's Articles of Association. With respect to the Company, the only parties deemed shareholders in accordance with Section 67 of the German Stock Corporation Act (AktG) are those entered as such in the Company's register of shareholders.

Restrictions on voting rights and the transfer of shares

The listed registered shares are subject to transfer restrictions. The issuing of restrictedly transferable registered shares by Munich Reinsurance Company dates back to the Company's foundation in 1880. Restricted transferability means that these shares may be transferred to another holder only with the Company's consent, which, according to Article 3(2) of Munich Reinsurance Company's Articles of Association, is granted at the Company's discretion. Since the share-trading processes have been made very efficient, the consent requirement does not lead to any delays in entry in the register. In recent decades, it has been granted without exception. Contractual agreements are in place with the members of the Board of Management providing for two or four-year minimum holding periods for the shares of the Company they have to purchase as part of share-based remuneration programmes under the remuneration system applicable prior to 2018.

Each share carries one vote at the Annual General Meeting and determines the shareholders' participation in the Company's profit. This excludes own shares held by the Company, from which it enjoys no rights. In the cases specified in Section 136 of the Stock Corporation Act, voting rights from the shares concerned are excluded by law. Insofar as shareholders are entered under their own name as being the holders of shares which belong to a third party and exceed the upper limit of 2% of the share capital as stated in the Articles of Association, the shares entered shall not carry any voting rights, pursuant to Article 3(5) of the Articles of Association.

Shareholdings exceeding 10% of the voting rights

Munich Reinsurance Company has not been notified, nor has it otherwise learned, about any direct or indirect shareholdings in the Company that exceeded 10% of the voting rights as at 31 December 2020.

Shares with special control rights

There are no shares with special control rights.

System of control for employee share scheme where the control rights are not exercised directly by the employees

Like other shareholders, employees of Munich Reinsurance Company exercise their control rights in accordance with statutory provisions and the Articles of Association.

Statutory regulations and provisions of the Articles of Association regarding appointment and dismissal of members of the Board of Management, and concerning amendments to the Articles of Association

The legal parameters for the appointment and dismissal of members of the Board of Management are specified in the Company's Co-determination Agreement, Articles 13(3) and 16 of the Articles of Association, Sections 84 and 85 of the Stock Corporation Act (AktG), and Sections 24, 47 and 303 of the German Insurance Supervision Act (VAG). Munich Re's Co-determination Agreement and Articles of Association follow the legal tenets of the German Co-Determination Act (MitbestG). Pursuant to Article 16 of the Articles of Association, the Board of Management must comprise a minimum of two persons; beyond this, the number of members is determined by the Supervisory Board. There are currently nine members of the Board of Management. The Supervisory Board appoints the members of the Board of Management pursuant to Section 84 of the Stock Corporation Act and may dismiss them at any time for good cause. On initial appointment, members of the Board of Management are usually given contracts for a term of three years. Extensions of up to five years are possible. For the appointment or dismissal of members of the Board of Management, Article 13(3) of the Articles of Association stipulates a two-thirds majority of the votes cast on the Supervisory Board. If the requisite majority is not obtained in the initial resolution, the appointment or dismissal of the Board of Management requires a simple majority of the votes cast. The second resolution is only possible following a suitable period of reflection and after the issue has been dealt with in the competent committee, but is thereafter also possible by written consent in lieu of a meeting. In exceptional cases, members of the Board of Management may also be appointed by a court of law, pursuant to Section 85 of the Stock Corporation Act.

The Stock Corporation Act contains general provisions governing amendments to the Articles of Association – Section 124(2) sentence 3, and Sections 179–181 of the Act. These state that only the Annual General Meeting can make resolutions on changes to the Articles of Association. In order to be carried, such a resolution must receive the votes cast by at least three-quarters of the share capital represented in the vote. The Articles of Association may stipulate a different capital majority (higher or lower) or other requirements, but the Company's Articles of Association do not provide for any such special features.

The Stock Corporation Act contains special regulations on amendments to the Articles of Association where increases and reductions in share capital are concerned (Sections 182–240 of the Act). Under these regulations, resolutions on capital measures are generally to be made by the Annual General Meeting. Within a self-determined scope, however, the Annual General Meeting can authorise the Board of Management to initiate certain (capital) measures. The authorisations relating to Munich Reinsurance Company are listed below. In all such cases, a resolution of the Annual General Meeting is required that has been adopted by at least a three-quarter majority of the share capital represented in the vote. Where these resolutions are concerned, the Company's Articles of Association again do not provide for other (i.e. higher) majorities or further requirements. Pursuant to Article 14 of the Articles of Association and Section 179(1) sentence 2 of the Stock Corporation Act, the Supervisory Board is empowered to make amendments to the Articles of Association which affect only the wording.

Powers of the Board of Management, with particular regard to the option of issuing or buying back shares

The powers of the members of the Board of Management are defined in Sections 71 and 76–94 of the Stock Corporation Act (AktG). The Board of Management has the following powers to issue and buy back shares:

- The Annual General Meeting of 29 April 2020 authorised the Board of Management to buy back, with the consent of the Supervisory Board, shares until 28 April 2023 up to a total amount of 10% of the share capital at the time of the resolution, pursuant to Section 71(1) no. 8 of the Stock Corporation Act. The shares acquired plus other own shares in the possession of the Company, or attributable to the Company pursuant to Sections 71d and 71e of the Stock Corporation Act may at no time amount to more than 10% of the share capital. In accordance with the provisions of the authorisation, the shares may be acquired in various ways. The Board of Management is authorised to use shares thus acquired for all legally permissible purposes, in particular those specified in the authorisation, whilst excluding subscription rights. Among other things, the Board of Management is empowered under Section 71(1) no. 8 of the Stock Corporation Act to retire the shares without requiring further approval from the Annual General Meeting.

- The Annual General Meeting of 29 April 2020 authorised the Board of Management to issue, with the consent of the Supervisory Board, in one or more issues until 28 April 2025, subordinated or non-subordinated convertible bonds, bonds with warrants, profit participation rights, profit participation certificates or combinations of such instruments, with or without a limited term to maturity, which may grant the holders or creditors conversion rights, warrants or conversion obligations in respect of shares of the Company up to a maximum proportional amount of the share capital of €117m (hereinafter referred to as "bonds"), with a total nominal amount of up to €5bn. Shareholders are generally entitled to a subscription right in respect of these bonds, but the Board of Management is authorised, with the consent of the Supervisory Board, to exclude this subscription right in the cases specified in the authorisation.

- Under Article 4(1) of the Articles of Association, the Board of Management is authorised, with the consent of the Supervisory Board, to increase the Company's share capital at any time up to 25 April 2022 by an amount of up to €280m by issuing new registered, no-par-value shares against cash or non-cash contribution (Authorised Capital 2017). In accordance with the above-mentioned provisions of the Articles of Association, it may exclude subscription rights. As regards the resolution of 26 April 2017, the Board of Management declared that it will utilise the Authorised Capital 2017 only up to a maximum amount of 33% of the share capital at the time of the Annual General Meeting. It further stated that it will only exercise the authority to exclude shareholders' subscription rights where such shares do not exceed 10% of the existing share capital at the time the authorisation is exercised for the first time.

- Pursuant to Article 4(2) of the Articles of Association, a contingent increase in the share capital by up to €117m, consisting of new registered no-par-value shares (Contingent Capital 2020), has been authorised. The purpose of this contingent capital increase is to permit shares to be granted to the holders of convertible bonds, bonds with warrants, profit participation rights or profit participation certificates (or combinations of such instruments) with conversion rights, warrants or conversion obligations, which are issued by the Company or a Group Company in accordance with the authorisation granted by the Annual General Meeting on 29 April 2020 for the period from 29 April 2020 to the end of the day on 28 April 2025. The increase in the share capital is to be carried out only to the extent that warrants or conversion rights under the aforementioned instruments are exercised, or conversion obligations under these instruments are fulfilled, and insofar as other means of fulfilment are not introduced.

The complete text of the aforementioned authorisations and the declaration by the Board of Management is provided in the agenda of the respective Annual General Meetings at www.munichre.com/agm/archive. Munich Reinsurance Company's Articles of Association are available at www.munichre.com/articles-of-association.

Significant agreements which take effect, alter or terminate upon a change of control following a takeover bid, and resultant implications

Based on our underwriting guidelines, our reinsurance agreements generally include a clause that grants both parties to the agreement a right of extraordinary cancellation in the event that "the other party merges with another company or its ownership and control undergoes a material change". Such or similar clauses are typical of the industry. They are also common in joint venture or cooperation agreements between shareholders of a joint investment company.

Compensation agreements concluded with members of the Board of Management or employees for the event of a takeover bid

There are no compensation agreements with members of the Board of Management or employees for the event of a takeover bid.

Analysis of the consolidated cash flow statement

Our primary insurance and reinsurance operations have a significant influence on Munich Re's cash flow. We generally first collect the premiums for the risks assumed and do not make payments until later, when claims need to be settled. Cash flow statements of insurance companies are therefore of limited relevance. The cash flow statement is adjusted to eliminate the effects of fluctuations in exchange rates and changes in the entities consolidated.

Consolidated cash flow statement

	2020	Prev. year	Change
	€m	€m	%
Cash flows from operating activities	7,219	9,493	–24.0
Cash flows from investing activities	–6,135	–6,919	11.3
Cash flows from financing activities	–323	–2,496	87.1
Cash flows for the financial year	**761**	**78**	**875.6**

In the consolidated cash flow statement, the consolidated profit of €1,211m is used as the starting point for determining the cash inflows from operating activities. The consolidated result is also adjusted by €5,264m to take account of the higher technical provisions. The net gains on the disposal of investments – which in adjusting the consolidated profit have to be deducted from the cash flows – are essentially attributable to the disposal of securities available for sale.

Outflows from investing activities were determined by the change from the acquisition/sale and maturity of investments and insurance-related investments totalling –€6,089m.

The cash outflows for financing activities stem mainly from the dividend payment in 2020, the share buy-back programme and the issue of the new subordinated green bond.

Overall in the year under review, cash – which encompasses cash with banks, cheques and cash in hand – rose by €761m (including currency effects) to €5,620m. There were items pledged as security and other restrictions on title amounting to €8m (11m).

Risk report

Risk governance and risk management system

Risk management organisation

Organisational structure
Munich Re has set up a governance system as required under Solvency II. The main elements of this system are the risk management, compliance, audit and actuarial functions. At Group level, risk management is part of the Integrated Risk Management division (IRM) and reports to the Group Chief Risk Officer (Group CRO). In addition to the Group functions, there are risk management units in the fields of business, each headed up by its own CRO.

Risk governance
Our risk governance ensures that an appropriate risk and control culture is in place by clearly assigning roles and responsibilities for all material risks. Risk governance is supported by various committees at Group and field-of-business level. The Board of Management must consult the risk management function on major decisions to be taken.

Defining the risk strategy
The risk strategy, which is aligned with Munich Re's business strategy, defines where, how and to what extent we are prepared to incur risks. The further development of our risk strategy is embedded in the annual planning cycle, and hence in our business planning. The risk strategy is approved by the Board of Management, and discussed with both the Audit Committee of the Supervisory Board and the full Supervisory Board as a material element of the own risk and solvency assessment (ORSA) process.

We determine the risk strategy by defining risk tolerances for a number of risk criteria and limits for risk concentrations that are based on the capital and liquidity available, and on our earnings target, and provide a frame of reference for the Group's operating divisions.

Implementation of strategy and the risk management cycle
The risk appetite defined by the Board of Management is reflected in our business planning and integrated into the management of our operations. If capacity shortages or conflicts with the limit system or regulations arise, defined escalation and decision-making processes are followed. These have been designed to ensure that the interests of the business and risk management considerations are weighed and reconciled with each other as far as possible.

Our implementation of risk management at the operational level embraces the identification, analysis and assessment of all material risks. This provides a basis for risk reporting, the control of limits and monitoring.

Risk identification is performed by means of appropriate processes and indicators, which are complemented by expert opinions. At Munich Re, the early identification of risks is primarily operationalised using the emerging risk process. We define emerging risks as new or sudden trends or events that are characterised by a high degree of uncertainty in terms of occurrence probability, expected loss amount, and/or possible effects on Munich Re.

As part of the risk analysis, a quantitative and qualitative assessment of all risks at consolidated Group level is made in order to take into account possible interactions between risks across all fields of business. Internal risk reporting provides the Board of Management with regular, detailed information on the risk situation, as regards the individual risk categories and the entire Group alike. This ensures that negative trends are identified in sufficient time for countermeasures to be taken. The purpose of our external risk reporting is to provide clients, shareholders and the supervisory authorities with a clear overview of the Group's risk situation. Actual risk limits are derived from the risk strategy: taking the defined risk appetite as a basis, limits, rules and any risk-reducing measures required are approved and implemented. We also have a comprehensive early-warning system that draws our attention to any potential shortages of capacity.

Quantitative risk monitoring based on indicators is carried out both centrally and within units. We monitor risks that cannot be expressed directly as an amount either centrally or in our units, depending on their materiality and allocation. The risk management system is regularly audited by Group Audit.

Significant risks

Our general definition of risk is possible future developments or events that could result in a negative prognosis or a negative deviation from the Group's targets. We classify risks as "significant" if they could have a long-term adverse effect on Munich Re's assets, financial situation or profitability. We have applied this definition consistently to each business unit and legal entity, taking account of its individual risk-bearing capacity. In doing so, we differentiate between risks depicted in our internal model and other risks.

Risks depicted in the internal model

Solvency capital requirement – Internal model
Munich Re has a comprehensive internal model that determines the capital needed to ensure that the Group is able to meet its commitments even after extreme loss events. We use the model to calculate the capital required under Solvency II (the solvency capital requirement, or SCR).

The SCR is the amount of eligible own funds that Munich Re needs to have available, with a given risk tolerance, to cover unexpected losses in the following year. It corresponds to the value at risk of the economic profit and loss distribution over a one-year time horizon with a confidence level of 99.5%, and thus equates to the economic loss for Munich Re that, given unchanged exposures, will be exceeded each year with a statistical probability of 0.5%. Our internal model is based on specially modelled distributions for the risk categories property-casualty, life and health, market, credit and operational risks. We use primarily historical data for the calibration of these distributions, complemented in some areas by expert judgement. Our historical data covers a long period to provide a stable and appropriate estimate of our risk parameters. We continue to take account of diversification effects we achieve through our broad spread across various risk categories and the combination of primary insurance and reinsurance business. We also take into account dependencies between the risks, which can result in higher capital requirements than would be the case if no dependency were assumed. We then determine the effect of the loss absorbency of deferred taxes.

The table shows the solvency capital requirement for Munich Re and its risk categories as at 31 December 2020.

Solvency capital requirements (SCR)

	Reinsurance		ERGO		Diversification	
	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year
	€m	€m	€m	€m	€m	€m
Property-casualty	9,306	8,774	559	434	-452	-375
Life and health	6,082	5,525	1,332	1,215	-418	-380
Market	5,617	6,257	6,635	5,975	-1,522	-2,152
Credit	2,762	2,500	2,614	1,867	-167	-161
Operational risk	796	706	648	565	-259	-220
Other[1]	466	435	313	235		
Subtotal	**25,029**	**24,197**	**12,102**	**10,291**		
Diversification effect	-9,283	-8,836	-1,235	-1,158		
Tax	-2,989	-2,793	-902	-787		
Total	**12,758**	**12,568**	**9,965**	**8,347**	**-3,543**	**-3,383**

→	Group			
	31.12.2020	Prev. year		Change
	€m	€m	€m	%
Property-casualty	9,413	8,833	580	6.6
Life and health	6,996	6,359	637	10.0
Market	10,730	10,080	650	6.4
Credit	5,210	4,206	1,004	23.9
Operational risk	1,186	1,051	135	12.8
Other[1]	779	670	109	16.3
Subtotal	**34,314**	**31,199**	**3,115**	**10.0**
Diversification effect	-11,737	-10,681	-1,056	-9.9
Tax	-3,396	-2,987	-409	-13.7
Total	**19,180**	**17,531**	**1,649**	**9.4**

1 Capital requirements for other financial sectors, e.g. institutions for occupational retirement provision.

At Group level, the SCR increased by 9.4% to €19.2bn, compared with €17.5bn as at 31 December of the previous year. This rise is attributable to increases in all risk categories. The SCR increase in the property-casualty category is mainly a consequence of further growth in business with natural hazard exposure in line with our business strategy. The SCR in life and health increased, mainly due to the fall in interest rates worldwide and to business growth in life reinsurance. The market risk SCR at Group level increased owing to opposite effects in both fields of business and a lower diversification. The market risk for the reinsurance field of business decreased appreciably owing to the lower currency and equity risk, whereas the market risk in the ERGO field of business was up, mainly owing to lower interest rates. The credit risk SCR increased largely owing to the fall in interest rates, which led to a rise in the market values of fixed-interest securities on the one hand and, in the ERGO field of business, to a reduction in loss-absorbing funds, as a result of which there was an increase in the remaining credit risks. Other information about the changes in the different risk categories and details about risk concentrations can be found in the following sections.

Property-casualty underwriting risk

The property-casualty risk category encompasses the underwriting risks in the property, motor, third-party liability, personal accident, marine, aviation and space, and credit classes of insurance, together with special lines also allocated to property-casualty. Further risk-relevant information on property-casualty business can be found in the Notes to the consolidated financial statements under (40) Disclosures on risks from property-casualty insurance business.

Underwriting risk here is defined as the risk of insured losses being higher than our expectations. The premium and reserve risks are significant components of the underwriting risk. Premium risk is the risk of future claims payments relating to insured losses that have not yet occurred being higher than expected. Reserve risk is the risk of technical provisions established being insufficient to cover losses that have already been incurred. In measuring loss provisions, we follow a cautious reserving approach and assess uncertainties conservatively. In every quarter, we also compare notified losses with our loss expectancy, in order to sustain a high level of reserves.

We differentiate between large losses involving a cost exceeding €10m in one field of business, losses affecting more than one risk or more than one line of business (accumulation losses), and all other losses (basic losses). For basic losses, we calculate the risk of subsequent reserving being required for existing risks within a year (reserve risk) and the risk of under-rating (premium risk). To achieve this, we use actuarial methods that are based on standard reserving procedures, but take into account the one-year time horizon. The calibration for these methodologies is based on our own historical loss and run-off data. Appropriate homogeneous segments of our property-casualty portfolio are used for the calculation of the reserve and premium risks. To aggregate the risk to whole-portfolio level, we apply correlations that take account of our own historical loss experience.

We limit our risk exposure by setting coverage limits not only for natural catastrophe risks, for example, but also for potential man-made losses. Our experts develop scientifically sound scenarios for possible natural events that quantify the probability of occurrence and damage potential. In addition to natural catastrophes, we include other accumulation risks such as cyber and pandemics, using special models.

Based on these scenarios, the potential effects on our portfolio are determined using stochastic models.

Our internal model considers the resulting accumulation-risk scenarios to be independent events. Munich Re's greatest natural hazard exposure lies in the scenarios "Atlantic Hurricane" and "Earthquake North America". Our estimates of exposure for the coming year to the peak scenarios for a return period of 200 years are €6.7bn (6.3bn) for Atlantic Hurricane and €6.0bn (5.9bn) for Earthquake North America (before tax, retained).

As part of our regular validation, we look in particular at the sensitivity of results produced by the risk model for large and accumulation losses to changes in the return periods or loss amounts for events, or a change in the business volumes written. We also consider the effect of changes of dependency assumptions on the results.

Another measure for controlling underwriting risks is the targeted cession of a portion of our risks to other carriers via external reinsurance or retrocession. Most of our companies have intra-Group and/or external reinsurance and/or retrocession cover.

In addition to traditional retrocession, we use alternative risk transfer for natural catastrophe risks in particular. Under this process, underwriting risks are transferred to the capital markets via special purpose vehicles.

Solvency capital requirement – Property-casualty

The solvency capital requirement increased by 6.6% at Group level. This was mainly due to growth in business with natural hazard exposure – in line with our business strategy – in the reinsurance field of business. The SCR increase was dampened by the depreciation of the US dollar.

The widespread global measures to curb the COVID-19 pandemic resulted in high losses in the property-casualty reinsurance segment. We will consider this in the validation of the underlying models.

Solvency capital requirements (SCR) – Property-casualty

	Reinsurance		ERGO		Diversification	
	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year
	€m	€m	€m	€m	€m	€m
Basic losses	3,948	3,895	507	393	-330	-243
Large and accumulation losses	8,892	8,282	240	153	-184	-108
Subtotal	**12,840**	**12,177**	**747**	**545**		
Diversification effect	-3,534	-3,403	-188	-111		
Total	**9,306**	**8,774**	**559**	**434**	**-452**	**-375**

→	Group			
	31.12.2020	Prev. year		Change
	€m	€m	€m	%
Basic losses	4,124	4,044	80	2.0
Large and accumulation losses	8,949	8,327	622	7.5
Subtotal	**13,073**	**12,371**	**702**	**5.7**
Diversification effect	-3,660	-3,537	-123	-3.5
Total	**9,413**	**8,833**	**580**	**6.6**

Life and health underwriting risk

The underwriting risk is defined here as the risk of insured benefits payable in life or health insurance business being higher than expected. Of particular relevance are biometric risks and policyholder-behaviour risks, such as lapses and lump-sum options. We differentiate between risks that have a short-term or long-term effect on our portfolio. In addition to the simple risk of random fluctuations resulting in higher claims expenditure in a particular year, the adverse developments with a short-term impact that we model notably include rare – but costly – events such as pandemics. Further relevant information on the risks in life and health insurance can be found in the Notes to the consolidated financial statements under (39) Disclosures on risks from life and health insurance business.

Life primary insurance products in particular, and a large part of our health primary insurance business, are long-term in nature, and the results they produce are spread over the entire duration of the policies. This can mean that negative developments in risk drivers with long-term effects sustainably reduce the value of the insurance portfolio (trend risks). The risk drivers mortality and disability are dominated by the life and health reinsurance segment, particularly by exposure in North America and the Asia-Pacific region. We also underwrite longevity risk in the life and health reinsurance segment, especially in the United Kingdom. The longevity risk driver can additionally be found in the products marketed by ERGO in Germany, together with typical risks related to policyholder behaviour, such as the lapse risk. To a lesser extent, we write risks connected with the increase in treatment costs, which arise in the ERGO field of business in particular.

Risk modelling attributes probabilities to potential modified assumptions. We use primarily historical data extracted from our underlying portfolios to calibrate these probabilities, and additionally apply general mortality rates for the population to model the mortality trend risk. To enable us to define appropriate parameters for the modelling of the range of areas in which we operate, portfolios with a homogeneous risk structure are grouped together and individual comprehensive profit and loss distributions determined. We then aggregate these distributions, taking account of the dependency structure to obtain an overall distribution.

Our largest short-term accumulation risk in the life and health risk category is a severe pandemic. We counter this risk by examining our overall exposure in detail using scenario analysis, and by defining appropriate measures to manage the risks.

In reinsurance, we control the assumption of biometric risks by means of a risk-commensurate underwriting policy. Interest-rate and other market risks are frequently ruled out by depositing the provisions with the cedant, with a guaranteed rate of interest from the deposit. In individual cases, these risks are also hedged by means of suitable capital-market instruments. We also limit our exposure to individuals and groups of persons in life insurance.

For primary insurance, substantial risk minimisation is achieved through product design. In case of adverse developments, parts of the provision for premium refunds – which are recognised and reversed in profit or loss – are of great significance for risk-balancing. In health primary insurance, most long-term contracts include the possibility and/or obligation to adjust premiums. Practically, however, there are limits to the resilience of policyholders.

Limits are laid down for the pandemic scenarios, which affect the portfolio in the shorter term, and the longevity scenarios with their longer-term effect in conformity with the risk strategy. We continue to analyse the sensitivity of the internal model to the input parameters on a regular basis. This relates to the interest rate, the biometric risk drivers and customer behaviour.

Solvency capital requirement – Life and health

The solvency capital requirement increased by 10.0% at Group level. In the reinsurance field of business, the increase in the SCR was due primarily to lower interest rates worldwide and to business growth. The increase in the SCR in the ERGO field of business was triggered above all by lower euro interest rates.

The losses incurred thus far as a result of the coronavirus pandemic are in line with the solvency capital requirement for the life and health reinsurance segment. We will consider this in the validation of the underlying models.

Solvency capital requirements (SCR) – Life and health

	Reinsurance		ERGO		Diversification		Group	
	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year
	€m	€m	€m	€m	€m	€m	€m	€m
Health	247	304	713	602	–61	–51	899	855
Mortality	4,544	4,025	223	247	–15	–16	4,753	4,255
Disability	3,362	2,970	445	418	–30	–22	3,777	3,366
Longevity	1,214	985	662	641	–30	–26	1,846	1,600
Other	524	484					524	484
Diversification	–3,809	–3,242	–710	–694			–4,802	–4,200
Total	**6,082**	**5,525**	**1,332**	**1,215**	**–418**	**–380**	**6,996**	**6,359**

Market risk

We define market risk as the risk of economic losses resulting from price changes in the capital markets. It includes equity risk, general interest-rate risk, specific interest-rate risk, property-price risk and currency risk. The general interest-rate risk relates to changes in the basic yield curves, whereas the specific interest-rate risk arises from changes in credit risk spreads – for example, on euro government bonds from various issuers, or on corporate bonds. We also include in market risk the risk of changes in inflation rates and implicit volatilities (cost of options). Fluctuations in market prices affect not only our investments, but also the underwriting liabilities – especially in life primary insurance. Due to the long-term interest-rate guarantees given in some cases and the variety of options granted to policyholders in traditional life insurance, the amount of the liabilities can be highly dependent on conditions in the capital markets.

Market risks are modelled by means of Monte Carlo simulation of possible future market scenarios. We revalue our assets and liabilities for each simulated market scenario, thus showing the probability distribution for changes to basic own funds.

We use appropriate limit and early-warning systems in our asset-liability management to manage market risks. Derivatives such as equity futures, options and interest-rate swaps – which are used mainly for hedging purposes – also play a role in our management of the risks. The impact of derivatives is taken into account in the calculation of solvency capital requirements. Further information on derivative financial instruments can be found in the Notes to the consolidated financial statements, (8) Other securities at fair value through profit or loss and insurance-related investments.

Solvency capital requirements (SCR) – Market

	Reinsurance		ERGO		Diversification	
	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year
	€m	€m	€m	€m	€m	€m
Equity risk	2,437	2,792	1,692	1,479	–55	–109
General interest-rate risk	1,515	1,549	2,500	2,800	–920	–1,338
Specific interest-rate risk	1,824	1,623	3,829	3,081	–617	–632
Property risk	1,591	1,540	845	758	–87	–55
Currency risk	3,364	4,457	177	232	–108	–59
Subtotal	**10,731**	**11,962**	**9,043**	**8,348**		
Diversification effect	–5,114	–5,705	–2,408	–2,373		
Total	**5,617**	**6,257**	**6,635**	**5,975**	**–1,522**	**–2,152**

	Group		Change	
	31.12.2020	Prev. year		
	€m	€m	€m	%
Equity risk	4,074	4,162	–88	–2.1
General interest-rate risk	3,094	3,012	82	2.7
Specific interest-rate risk	5,037	4,071	966	23.7
Property risk	2,350	2,243	107	4.8
Currency risk	3,433	4,630	–1,197	–25.9
Subtotal	**17,988**	**18,118**	**–130**	**–0.7**
Diversification effect	–7,257	–8,038	781	9.7
Total	**10,730**	**10,080**	**650**	**6.4**

Solvency capital requirement – Market

The solvency capital requirement increased by 6.4% at Group level. Detailed information on the changes in the individual subcategories is available in the following sections.

Equity risk

The year-on-year reduction in the equity-backing ratio from 6.4% to 6.0% (after derivatives) was reflected in a decrease in the equity risk in the reinsurance field of business.

The increased equity risk in the ERGO field of business was primarily a consequence of lower interest rates, which in turn led to a reduction in the risk buffer available to life insurance companies and thus could be seen in this risk category as well.

Interest-rate risk

In the reinsurance field of business, the general interest-rate risk remained nearly unchanged. The increase in the specific interest-rate risk was, on the one hand, attributable to the higher market values of these exposures and, on the other, to the fact that the highly volatile credit risk spreads observed in 2020 and caused by the coronavirus pandemic led to an increased risk assessment.

In the ERGO field of business, the overall increase in the interest-rate risks primarily resulted from the further drop in interest rates. As a consequence, the risk buffers available to our life insurance companies decreased, leaving more interest-rate risks with the shareholder.

In the reinsurance field of business, the market value of interest-sensitive investments as at 31 December 2020 was €73.5bn (€71.0bn). Measured in terms of modified duration, the interest-rate sensitivity of those investments was 6.6 (6.5), while that of the liabilities was 6.7 (6.3). A decrease in interest rates of one basis point would increase available own funds by approximately €11.0m (11.8m).

In the ERGO field of business, the fair value of interest-sensitive investments was €139.6bn (134.4bn). The modified duration was 10.1 (9.4) for interest-sensitive investments and 10.3 (10.1) for liabilities. A decrease in interest rates of one basis point would decrease available own funds by approximately €5.6m (12.5m). This resulted in exposure to falling interest rates arising mainly out of the long-term options and guarantees in life insurance business.

Property risk
The further expansion of the global property portfolio led to an increase in the property risk. This effect was partially offset by the depreciation of foreign currencies against the euro.

Currency risk
The currency risk is falling, primarily due to a decrease in US dollar positions.

Credit risk
We define credit risk as the financial loss that Munich Re could incur as a result of a change in the financial situation of a counterparty. In addition to credit risks arising out of investments in securities and payment transactions with clients, we actively assume credit risk through the writing of credit and financial reinsurance and in corresponding primary insurance business.

Munich Re determines credit risks using a portfolio model, which is calibrated over a longer period (at least one full credit cycle), and which takes account of changes in fair value caused by rating migrations and debtor default. The credit risk arising out of investments (including deposits retained on assumed reinsurance, government bonds and credit default swaps – CDSs) and reserves ceded is calculated by individual debtor. If the credit risk does not exclusively depend on the debtor's creditworthiness, but also on other factors (such as subordination, guarantees or collateralisation), these are also taken into account. We use historical capital-market data to determine the associated migration and default probabilities. Correlation effects between debtors are derived from the sectors and countries in which they operate, and sector and country correlations are based on the interdependencies between the relevant stock indices. The calculation of the credit risk in Other receivables is based on internal expert assessments. We also capitalise the credit risk for highly rated government bonds. Information on ratings can be found in the Notes to the consolidated financial statements, (6) Loans ff.

Risk concentrations are mainly in government bonds issued by countries inside and outside the European Union. In addition, pfandbriefe and similar covered bonds account for a large proportion of the investments. These partly result in issuer risk, and partly in risks related to the assets belonging to the cover pool.

We use a cross-balance-sheet counterparty limit system valid throughout the Group to monitor and control our Group-wide credit risks. The limits for each counterparty (a group of companies or country) are based on its financial situation as determined by the results of our fundamental analyses, ratings and market data, and the risk appetite defined by the Board of Management. The utilisation of limits is calculated on the basis of risk-weighted exposures. There are also volume limits for securities lending and repurchase transactions. Group-wide rules for collateral management – for example, for over-the-counter (OTC) derivatives and catastrophe bonds issued – enable the associated credit risk to be reduced.

In monitoring the country risks, we do not simply rely on the usual ratings, but perform independent analyses of the political, economic and fiscal situation in the most important of the countries issuing paper in which we might potentially invest. On this basis, and taking account of the investment requirements of the fields of business in the respective currency areas and countries, limits or action to be taken are approved. These are mandatory throughout the Group for investments and the insurance of political risks.

With the help of defined stress scenarios, our experts forecast potential consequences for the financial markets, the fair values of our investments, and the present values of our underwriting liabilities. At Group level, we counter any negative effects with the high degree of diversification in our investments and our liability structure, and with our active Group-wide asset-liability management.

The sensitivities in the credit risk model are regularly checked against the most important input parameters. This primarily concerns the recovery rates from insolvent debtors, the probabilities of debtor migration between rating classes, and the parameters for correlations between debtors. All validations demonstrated the appropriateness of the modelling approaches used.

We manage credit default risk in retrocession and external reinsurance with the assistance of limits determined by the Retro Security Committee. Our reserves ceded to reinsurers were assignable to the following rating categories as at 31 December:

Ceded share of technical provisions according to rating

%	31.12.2020	Prev. year
AAA	3.2	0.6
AA	24.5	21.9
A	41.3	36.6
BBB and lower	7.2	6.8
No rating available	23.7	34.1

Further information on the risks arising out of receivables relating to insurance business can be found in the Notes to the consolidated financial statements, (12) Other receivables.

Solvency capital requirement – Credit
The solvency capital requirement increased by 23.9% at Group level. The increase was mainly attributable to lower interest rates, as a result of which the market values of fixed-interest securities rose. Moreover, the risk buffers available to our life insurance companies decreased, leaving more credit risk with the shareholder. We also assessed the simultaneous occurrence of negative scenarios more conservatively on the basis of historical market data.

Operational risk
We define operational risk as the risk of losses resulting from inadequate or failed internal processes, incidents caused by the actions of personnel or system malfunctions, or external events. This includes criminal acts committed by employees or third parties, insider trading, infringements of antitrust law, business interruptions, inaccurate processing of transactions, non-compliance with reporting obligations, and disagreements with business partners.

Operational risks are managed through our internal control system (ICS). It addresses Group management requirements, while complying with local regulations. Appropriate measures – up to and including larger projects – are used to correct identified weaknesses or mistakes. The identification of risks that are significant from a Group perspective is covered by our ICS, and these risks are reviewed by the risk carriers and process owners on a regular basis. Furthermore, the design of the ICS and compliance with the system is regularly reviewed by Group Audit.

A key component of the ICS lies in ensuring the reliability of annual financial statements at both consolidated and solo-undertaking level, and the identification, management and control of risks arising out of the accounting process. The Group has established an accounting manual and a system providing information on changes to rules applied throughout the Group. Financial accounting and reporting are subject to materiality thresholds to ensure that the cost of the internal controls performed is proportionate to the benefits derived. The risks that are significant from a Group perspective for our financial reporting are covered by the ICS and are reviewed by the risk carriers on a regular basis.

We use scenario analyses to quantify operational risks. The results are fed into the modelling of the solvency capital requirement for operational risks and are validated using various sources of information, such as the ICS and internal and external loss data.

The sensitivity in the internal model is regularly checked against the most important input parameters. This mainly relates to the dependence of the result on frequency and loss amounts and the parameters for the correlations between scenarios. The analyses showed no anomalies in the year under review.

Solvency capital requirement – Operational risk
At Group level, the solvency capital requirement increased by 12.8% owing to a more conservative assessment in selected scenarios.

Other risk categories

We use appropriate procedures to specifically identify and analyse reputational risk, strategic risk, security risk and liquidity risk. These risks are also assessed and managed in our risk management process.

Reputational risk
We define reputational risk as the risk of damage to Munich Re's reputation as a consequence of a negative public image resulting in a deterioration in its credit rating, corporate value, etc. The reputational-risk aspect of relevant issues is assessed in the fields of business by reputational risk committees. Where a reputational risk could potentially have an impact on Munich Re, central divisions at Group level are involved in the assessment.

Strategic risk
We define strategic risk as the risk of making wrong business decisions, implementing decisions poorly, or being unable to adapt to changes in the operating environment. Existing and new potential for success in the Group and the fields of business in which it operates creates strategic risks, which we manage by carrying out risk analyses for significant strategic issues and regularly monitoring the implementation of measures deemed necessary. The Group Chief Risk Officer is involved in both the strategic and operational business planning as well as in significant company sales, mergers and acquisitions.

Security risk
We define security risks as risks resulting from threats to the security of our employees, data, information, and property. We are intensifying our analysis of cyber risks in particular in recognition of the increasing importance of information technology for Munich Re's core processes and the dynamic growth of cyber crime.

The Group Chief Information Security Officer (Group CISO), a function that is assigned to risk management, is responsible for the central and Group-wide coordination and control of all activities involving information security risks. Security risk committees have also been set up in the fields of business to assess and manage security risks. The members of the security risk committees are managers from operational units (e.g. IT Security), the control functions (for example: risk management, information security, data protection) and representatives of the divisional units and central divisions.

To further improve cyber security, we are working on initiatives both specific to and across the fields of business to ensure a level of protection in line with our information security strategy. An additional expansion of human resources is also envisaged.

Liquidity risk

Our objective in managing liquidity risk is to ensure that we are in a position to meet our payment obligations at all times. To guarantee this, the liquidity position at our units is continuously monitored and subject to stringent requirements for the availability of liquidity. The short-term and medium-term liquidity planning is submitted to the Board of Management on a regular basis.

The medium-term strategic build-up of more illiquid investments (such as infrastructure investments) is leading to a gradual switch from liquid funds to illiquid assets, which has already been taken into account for the planned investments in the liquidity planning.

The liquidity risk is managed within the framework of our holistic risk strategy, with the Board of Management defining limits on which minimum liquidity requirements for our operations are based. These risk limits are reviewed annually, and compliance with the minimum requirements is continuously monitored. Using quantitative risk criteria, we ensure that Munich Re has sufficient liquidity available to meet its payment obligations even under adverse scenarios, with the liquidity position being assessed both for extreme insurance scenarios and for adverse situations in the capital markets.

Further information on liquidity risks in life and health and property-casualty insurance business can be found in the Notes to the consolidated financial statements, (39) Disclosures on risks from life and health insurance business, and (40) Disclosures on risks from property-casualty insurance business.

Solvency ratio under Solvency II

The solvency ratio under Solvency II is the ratio of the eligible own funds to the solvency capital requirement.

Solvency II ratio[1]

		31.12.2020	Prev. year	Change
Eligible own funds[2]	€m	39,919	41,544	–1,625
Solvency capital requirement	€m	19,180	17,531	1,649
Solvency II ratio	%	208.1	237.0	

1 Eligible own funds excluding the application of transitional measures for technical provisions; including the application of transitional measures for technical provisions, the own funds amounted to €46.1bn (48.1bn); Solvency II ratio: 240% (274%).

2 Negative economic earnings reduced the eligible own funds as at the reporting date by a total of €2.2bn. While the dividend approved by the Board of Management and proposed to the Annual General Meeting for the 2020 financial year also had a reducing effect, the issuing of a subordinated bond and the suspension of the share buy-back – the reducing effect of which had already been recognised as at 31 December 2019 – both had a positive effect. Overall, eligible own funds increased by €0.9bn in the 2020 financial year as a result of capital measures. An amount of –€0.3bn for other measures was also recognised.

The eligible own funds as at the balance sheet date take into account deductions for the dividend of €1.4bn agreed by the Board of Management and proposed to the Annual General Meeting for the 2020 financial year.

Other risks

Economic and financial-market developments and regulatory risks

Munich Re is heavily invested in the eurozone, and in reinsurance in particular in the US dollar currency area. We attach importance to maintaining a correspondingly broad diversification of investments to cover our technical provisions and liabilities. However, low interest rates continue to pose major challenges, in particular for life insurance companies with guaranteed minimum interest rates in the eurozone. We take various risk management measures to counter fluctuations in the capital markets that can lead to volatilities in the Group's own funds.

The further development of the coronavirus pandemic constitutes the greatest risk factor by far for global economic development. If it is not possible to contain the virus with the help of the vaccines, there is also a chance that states will be unable to sustain their support measures. The resultant economic weakness would likely be driven to a greater extent by endogenous factors, such as growing unemployment and company insolvencies – which would have an adverse impact, at least temporarily, on markets for high-risk assets, as occurred last year. Moreover, prolonged restrictions on society and mobility could also contribute to greater political uncertainty.

In geopolitical terms, the focus remains on the large number of major conflicts and trouble spots which – if they escalate – could have perceptible consequences not only at a regional level, but also globally. These include the various crises in the Middle East, tensions between a number of Mediterranean neighbouring states and a possible intensification of the USA's confrontation with Iran, Russia or North Korea. With respect to global capital markets, each of these crises has the potential to dramatically increase uncertainty and volatility, at least in the short term.

In the medium term, there is also a risk of a split in the global technological and economic space driven by the geopolitical conflict between China and the USA. We constantly analyse the potential impact that developments of this sort may have on our risk profile.

A number of political risks persist in the eurozone. The economic damage caused by the pandemic could stoke political crises and, coupled with the disintegrative tendencies sparked by Brexit, lead to an EU crisis. The resultant uncertainty would put a strain on EU assets. Thanks to the cohesion signal sent by the introduction of the EU's recovery instrument, NextGenerationEU, this risk has faded into the background. Given the sharp increase in sovereign debt, however, risks related to a significant increase in refinancing costs exist – for example, in the event of an unexpectedly rapid rise in inflation or the flaring up of national political risks. Higher credit spreads and possible falls in ratings would lead to corresponding declines in market values for the bonds of the affected countries, among other things. Furthermore, the beginning "communitisation" of sovereign debt could lead to German government bonds losing their safe-haven status in the medium term, which would also involve falls in market values.

The exit negotiations between the EU and the United Kingdom have been concluded, and the United Kingdom officially left the EU and entered a transition period on 31 January 2020. With the EU-UK Trade and Cooperation Agreement, the rules were laid down for the future relationship starting on 1 January 2021. The Agreement is initially applied on a provisional basis; final ratification by the European Parliament is expected to take place by the end of April 2021. The United Kingdom has left the EU single market and the customs union. Duty-free and quota-free trade in goods remains possible, though the trade in services has been negatively affected. There will be no more "passporting rights" for financial services, for example.

A number of Munich Re insurance and reinsurance units conduct business in the United Kingdom, and the UK's departure from the EU has implications for that business. We have already adapted our local organisations to the direct effects of Brexit. These preparation measures enable Munich Re to continue to write business in the UK. As things stand at present, we do not expect the Trade and Cooperation Agreement to have any significant negative direct or indirect effects overall on Munich Re's assets, liabilities, financial position or results.

In Germany, government action with implications for private health insurance cannot be ruled out, especially if political parties advocating a "citizens' insurance scheme" influence the policies of a future German Federal Government. At the present time, however, it is not possible to predict what these implications might be.

It is also conceivable that greater emphasis will be placed on climate and environmental policy following the German federal election in 2021, which could also have an impact on the business model for investments or for primary insurance and reinsurance business. This is being monitored closely throughout the Group.

Global players such as Munich Re are subject to increased fiscal pressure nationally and internationally, as well as a higher audit intensity. Given the current political emphasis on an appropriate taxation of international companies and current work at OECD level as regards a global minimum tax rate, this trend is likely to continue and intensify.

Climate change

Climate change represents one of the greatest long-term risks of change for the insurance industry. We expect climate change to lead to a lasting increase in extreme weather events, affecting natural hazard risks. Our risk-management competence built up over many years, the consideration of findings from current climate research and our highly developed risk models allow us to professionally assess these altered natural hazard risks and to adequately account for these risks in the solvency capital requirement as well as in contract wording and pricing. In addition to the physical risks arising out of climate change, our analyses increasingly look at how risks are changing as the transition to low-carbon economies proceeds, due to the replacement of carbon-based energy technologies, for example (transitional risks). We are also closely monitoring developments of direct and indirect climate liability risks. For example, claims for damages as a consequence of greenhouse gas emissions could be recognised in court – for instance, in connection with rising sea levels on coasts.

Legal risks

As part of the normal course of business, Munich Re companies are involved in court, regulatory and arbitration proceedings in various countries. The outcome of pending or impending proceedings is neither certain nor predictable. However, we believe that none of these proceedings will have a significant negative effect on the financial position of Munich Re. Legal risks are dealt with using combined legal expertise within the individual departments and units.

Summary

In accordance with the prescribed processes, our Board committees explicitly defined the risk appetite for significant risk categories in the year under review, and quantified it with key figures. We determined and documented the risk appetite across the Group hierarchy and communicated it throughout the Group. In 2020, risk exposures were regularly quantified and compared with the risk appetite. They were reported on and discussed in the relevant committees. At 208.1%, the Solvency II ratio is within our communicated optimal ranges of 175–220% (without application of transitional measures).

Despite the burden to date caused by the coronavirus pandemic – and with an eye towards the claims expected in 2021 in connection with the pandemic – Munich Re continues to rest on a very solid capital base. Based on up-to-date findings and on our internal pandemic model, Munich Re's Solvency II ratio (without application of transitional measures) would be within the optimal range even in the event of further insurance claims and negative capital-market effects. We therefore assess Munich Re's risk situation to be manageable and under control. For more detailed information, please see Outlook 2021.

Opportunities report

Our diversified business model, strong capitalisation and innovation, good customer focus, and deep knowledge of the industry put us in a good position to benefit from continuously evolving markets and changes in client behaviour, while generating profitable growth by developing customised solutions for our clients. Unless stated otherwise, the opportunities for Munich Re outlined below generally relate equally to all fields of business.

Business environment

We assume that by the end of 2021 the global economy will return to its level prior to the coronavirus pandemic. Full recovery from the recession is likely to take longer in many European economies. The pace of recovery will depend significantly on how the pandemic plays out, and on vaccination possibilities and fiscal policy measures. However, if the important macroeconomic parameters that are especially relevant to us improve even more strongly, additional business opportunities will open up for us. Stronger economic growth tends to have a positive impact on the demand for insurance cover, and it triggers higher premium volume in most classes of insurance. In addition, the coronavirus pandemic has caused many reinsurance and primary insurance clients to recognise that they need increased risk protection. The need for first-class medical care and cover against unforeseeable risks was brought home to consumers, and this could have a positive effect on demand for insurance products, in particular private health insurance.

Economic dynamics, which have been positive for a long period, and the low degree of insurance penetration in many developing and emerging markets represent opportunities for profitable expansion and for the further diversification of our business portfolio. ERGO's activities, in particular in India and China, are an example of this.

The further deterioration in interest rates triggered by the coronavirus pandemic has created a variety of difficulties for our cedants, particularly in life insurance, and poses many challenges for our own investments, although they are partially compensated for by our asset management. A less expansionary monetary policy could lead to higher interest rates and allow the bond markets to normalise. This would entail some investment losses in the short term, but would be favourable to our insurance business and bring higher returns in the long run.

In addition, we expect the hard market in international property insurance to continue for some years, and it will bring numerous opportunities for profitable growth, especially in our reinsurance and industrial insurance portfolios.

Digital transformation

Digitalisation is increasingly transforming the markets, and the continuous changes in customer behaviour are demanding greater flexibility in providing access, coverage and solutions, as well as in our underlying internal structures. Driving digital transformation therefore remains one of Munich Re's strategic priorities.

We are continually adjusting our internal structures and processes to reduce complexity and costs, while at the same time seizing the opportunities that digital transformation offers. We are attempting to automate as much as possible, along the entire value chain and across all units. We want to deliver what our clients and we ourselves expect in terms of quality, rapidity, and security, while continuing to increase efficiency. This applies not just to traditionally client-focused areas such as sales and contract administration, but also for example to the digitalisation of our asset management.

We are taking account of increasing demand for digital products in our research and development activities. At ERGO, for example, we have heavily invested in the development of new technologies, such as robotics and artificial intelligence (AI) solutions. In doing so, we intend to make our processes and operations more efficient and intelligent, and thus enhance our customers' positive experience.

Furthermore, significant investments in data, infrastructure, and human resources make it possible for us to use big data analytics even more systematically for our own business and make the technology available to our clients. We are supporting our transformation towards more innovative products and services through major investments in our digital infrastructure and know-how, as well as through joint ventures with strategic partners such as start-ups. With Munich Re's presence in major start-up hubs, our collaboration with accelerators, and our corporate venture capital activities, numerous new business and cooperation ideas are arising which will help us to expand our business model beyond the insurance value chain, and tap the growth opportunities offered by the digital world. Given our clients' hybrid requirements, we are actively driving the integration of various products and sales channels, and the expansion of direct sales in all classes of primary insurance.

Besides expanding our own digital expertise, we also plan to focus our growth activities on strategic acquiring or partnering with different promising technology companies. By integrating the services offered by our Internet of Things subsidiary Relayr and by cooperating with key players on the industrial IoT market, we are driving new business models, such as Equipment-as-a-Service and Production-as-a-Service, and are helping shape the transformation of the manufacturing industry. Successful examples include the new partnership with the machine tools manufacturer Trumpf, in which we are combining risk solutions, IoT technology and financing, thus enabling new cutting-edge business models. In addition, we have established the FlexFactory joint venture together with Porsche and its subsidiary MHP, where we are bundling manufacturing, software and financial management expertise to realise small production runs flexibly and economically.

Social trends

An ageing population coupled with frequently diminishing state benefits are leading to increasing demand for life and health insurance, which we are catering to with our broad spectrum of products in life primary insurance. MEAG is also playing a key role in this respect with its investment expertise. Moreover, advances in medicine and the increasing significance of prevention in primary insurance are providing us with a host of possibilities for satisfying our clients' most diverse needs and binding them to Munich Re, as well as for expanding our business. In life reinsurance, we also offer our clients integrated reinsurance and financing solutions.

Ecologically and socially sustainable action is becoming more and more important for the insurance industry. Our many different activities in this context offer us the opportunity to be perceived as an attractive partner for clients, investors and staff, and to address societal expectations. Further information is available in our combined non-financial statement.

Climate change and natural catastrophes

We expect climate change to lead to an increase in weather-related natural catastrophes in the long term – despite the global efforts made. This growing loss potential will result in greater demand for primary insurance and reinsurance products. Our expertise in dealing with natural hazard risks allows us to calculate competitive prices for traditional covers, and to develop new solutions for our primary insurance and reinsurance clients.

Expanding the limits of insurability

Together with our clients, we strive to expand the boundaries of insurability in many ways and offer our customers new and enhanced types of cover. For example, in cyber insurance we are now offering our clients diverse coverage concepts for risks and damage caused by faulty product software and cyber attacks. In addition, we are in the process of expanding our palette of integrated cyber services to include preventative measures and the recovery of lost data, in order to better support our customers before, during and after a potential cyber disruption. At the same time, we are developing a broad spectrum of insurance covers for those risks that are rapidly becoming as important as the traditional ones in a changing world: for example, performance guarantees for alternative energy and motors, risks from artificial intelligence and algorithms, parametric risks, or agro and entrepreneurial risks.

A further example is our subsidiary ERGO Mobility Solutions GmbH, in which we are jointly developing innovative service and product solutions together with our cooperation partners in the field of mobility; key achievements in 2020 include the start of sales activities at Great Wall Motors in China and the conclusion of a cooperation agreement with BMW.

Prospects

Our predictions for the forthcoming development of our Group are based on planning figures, forecasts and expectations. Consequently, the following outlook merely reflects our imperfect assumptions and subjective views. We do not accept any responsibility or liability in the event that they are not realised in part or in full.

It is not only the obvious fluctuations in the incidence of major losses that make an accurate forecast of IFRS results impossible. Despite the fact that our assets are geared to the characteristics of our liabilities, forecasts are also made more difficult by the pronounced volatility of the capital markets and exchange rates. There remains a high level of uncertainty, as it is still unclear how the coronavirus pandemic will play out.

Comparison of the prospects for 2020 with the result achieved

Munich Re Group

Comparison of prospects for the Munich Re Group in the 2019 annual report with results achieved

		Target 2020	Adjustment 2020	Result 2020
Gross premiums written	€bn	52	54	54.9
Technical result life and health reinsurance[1]	€m	550	over 100	97
Combined ratio property-casualty reinsurance	%	97	106	105.6
Combined ratio ERGO Property-casualty Germany	%	92	92	92.4
Combined ratio ERGO Property-casualty International	%	94	94	92.7
Return on investment[2]	%	3	3	3.0
Consolidated result	€bn	2.8	1.2	1.2
Economic earnings	€bn	over 2.8	withdrawn	–2.2

1 Including the result from reinsurance treaties with non-significant risk transfer.
2 Excluding insurance-related investments.

The year 2020 was marked by the global spread of COVID-19 and far-reaching restrictions on public, private and economic life. We faced – and are indeed still facing – enormous social, economic and business challenges. Protecting the health of our staff, their families and our business partners remains our highest priority. We are using appropriate models such as flexible working hours and home working in order to secure our business operations.

Owing to the coronavirus pandemic, we were not able to realise all of the targets we originally set ourselves for 2020. Indeed, we retracted some of the targets during the first half-year. With the exception of economic earnings, updated forecasts were published for all previously retracted targets on 1 December 2020.

At the beginning of the year, we projected gross premium of around €52bn for Munich Re for the 2020 financial year. After pleasing performance in the first six months, especially in reinsurance, we raised our forecast to around €54bn. At €54.9bn, we exceeded this target figure.

At the beginning of the year, we had projected a consolidated result of around €2.8bn for the 2020 financial year. On 31 March 2020 we announced that, given the losses already incurred in connection with the cancellation or postponement of major events and the high levels of uncertainty regarding further consequences of COVID-19, Munich Re would not meet its profit guidance of €2.8bn for the whole of 2020. On 1 December 2020, we published a revised profit guidance of €1.2bn for the 2020 financial year. At €1.2bn, we attained this target.

The 2020 investment result generated an overall return of 3.0% in relation to the average market value of our portfolio. We met our target of a return on investment of around 3% thanks to the ability to offset lower regular income and impairment losses on our equity portfolio – resulting from temporary falls in share prices in Q1 – with gains from the disposal of fixed-interest securities and equities as well as gains from the sale of real estate and an improved net balance of derivatives.

For the 2020 financial year, we had originally set the target for economic earnings at "over €2.8bn". Owing to the pandemic, we retracted the Group economic earnings target and, in light of the ongoing high level of uncertainty throughout the year, we did not issue a forecast. Economic earnings amounted to –€2.2bn in 2020. Besides major-loss expenditure being higher than expected owing in particular to COVID-19 losses, this result can be attributed to the negative influence of the capital markets. The depreciation of foreign currencies against the euro, the widening of risk spreads on interest-bearing investments, and the impact of falling share prices in Q1 in particular put a strain on economic earnings. While the decline in risk-free euro interest rates had an adverse impact on ERGO, the fall in risk-free interest rates in all material currency areas positively affected the Group's overall economic earnings thanks to positive effects in reinsurance. Adjusted for COVID-19-related losses, the value added by new business developed positively. Despite COVID-19-related losses, new business made a positive contribution at Group level.

Reinsurance

At the beginning of the financial year, we had forecast gross premiums written of around €34bn in the reinsurance field of business. Following pleasing performance in the first two quarters, we raised the forecast to around €36bn. At €37.3bn, we significantly exceeded this forecast, despite adverse exchange rate developments. Growth in life and health reinsurance primarily derived from Europe and Asia, and to a lesser extent also from North America. The increase in premium in Europe was aided by the conclusion of two new longevity treaties, one of which was written outside the United Kingdom for the very first time. The ongoing strong demand for financially motivated reinsurance also contributed to the development in premium income. In property-casualty reinsurance, business grew significantly across almost all lines and regions. The main drivers were the expansion of, and new business with, selected clients in North America and selective growth in continental Europe, in the United Kingdom, and in Asia and Australia.

At the beginning of the year, we had projected a technical result, including reinsurance treaties with non-significant risk transfer, of €550m in life and health reinsurance. Largely as a result of high claims expenditure related to the coronavirus pandemic, this target was retracted upon publication of the Q2 results in August. The target was adjusted on 1 December 2020, to over €100m. At €97m, we narrowly missed this lower target. COVID-19-related claims amounted to €370m in life and health reinsurance and were dominated by mortality covers in the USA.

The combined ratio envisaged for property-casualty reinsurance at the beginning of the financial year was 97% of net earned premiums. Upon publication of the Q1 results in May, this target was also retracted. On 1 December 2020, we published our revised forecast of 106%. At 105.6%, the combined ratio for the financial year was slightly better than the adjusted expectation at the end of 2020. Amounting to 20.8% of net earned premiums, major-loss expenditure significantly surpassed our major-loss expectation of 12% of net premiums. Man-made major losses were a significant contributory factor, with COVID-19-related expenditure amounting to €3,066m.

The forecast consolidated result in reinsurance was €2.3bn. This target was also retracted upon publication of the Q1 results. On 1 December, we announced our revised forecast of €0.7bn. We attained this target, achieving a consolidated result of €0.7bn.

ERGO

At the beginning of the financial year, we had forecast gross premiums written of slightly more than €17.5bn for the ERGO field of business. We achieved this, with €17.6bn. Our forecast at the start of the year for the combined ratio of the ERGO Property-casualty Germany segment had been around 92% – provided major losses remained within normal bounds. Although the 2020 loss ratio was adversely affected by the coronavirus pandemic, among other things, we only narrowly missed our forecast, with 92.4% at the end of the financial year.

At the beginning of the year, we had aimed for a combined ratio of around 94% in the ERGO International segment, provided major losses remained within normal bounds. The combined ratio saw a significant improvement, especially in Poland – our largest market – and in Austria, and was a pleasing 92.7% at the end of the financial year.

At the beginning of the year, we had set a profit target of around €530m for the ERGO field of business as part of the ERGO Strategy Programme. With an annual result of €517m, we almost achieved this target. The negative impact caused by the coronavirus pandemic amounted to €64m after tax and resulted primarily from business closure and event cancellation insurance in the ERGO property-casualty segment and a decline in premium income from travel insurance in the ERGO Life and Health segment. Nonetheless, thanks in particular to pleasing growth in the ERGO International segment, the result was significantly higher than that of the previous year.

Outlook 2021

Outlook for the Munich Re Group

		2021
Gross premiums written	€bn	55
Technical result life and health reinsurance[1]	€m	400
Combined ratio property-casualty reinsurance	%	96
Combined ratio ERGO Property-casualty Germany	%	92
Combined ratio ERGO Property-casualty International	%	93
Return on investment[2]	%	over 2.5
Consolidated result	€bn	2.8
Economic earnings	€bn	over 2.8

1 Including the result from reinsurance treaties with non-significant risk transfer.
2 Excluding insurance-related investments.

Munich Re anticipates further COVID-19-related losses in 2021, though to a much lesser degree than in 2020. Despite recovery in the financial markets, uncertainty remains as regards the length and severity of the recessions in many countries and the impact these could have on the international financial markets. For Munich Re, this continues to entail risks related to a possible widening of credit risk spreads for bonds. Further loss potential is found in the possible reductions in market values of shares and property, or an additional drop in the interest rate.

Owing to fragile macroeconomic developments, volatile capital markets and the unclear future of the pandemic, all forecasts are subject to considerable uncertainty.

Munich Re Group

For 2021, we estimate that the Group's gross premiums written will total around €55bn.

Overall, we expect an annual return on investment of more than 2.5%.

We aim to achieve a consolidated result of around €2.8bn: €1.6bn higher than the previous year's figure, which was significantly impacted by COVID-19 losses. This profit guidance is subject to claims experience with regard to major losses being within normal bounds, to claims provisions remaining unchanged and to our income statement not being impacted by severe currency or capital market movements, significant changes in tax parameters, or other one-off effects.

For the 2021 financial year, we predict economic earnings of over €2.8bn. The higher target figure compared with the envisaged IFRS result is chiefly due to new business, in particular in the life and health reinsurance segment. In economic metrics, the corresponding profit fully materialises at the start of the treaty, and thus earlier than in IFRS. This projection is based on the assumption of stable conditions and capital markets, unchanged modelling parameters and – with the exception of COVID-19 – normal major-loss incidence. Deviations from these assumptions may have a different impact on economic earnings than on IFRS accounting. Further information on economic earnings as a management tool can be found in the section entitled Tools of corporate management and strategic financial objectives.

Subject to approval by the Annual General Meeting, the dividend will amount to €9.80 per share. This is equivalent to a total payout of €1.4bn.

Reinsurance

Gross premium volume in reinsurance as a whole should be around €37bn in 2021, i.e. at roughly the same level as the previous year. Currency translation effects could potentially have a considerable impact on this estimate. In reinsurance, we anticipate COVID-19-related losses of around €500m and an additional decline in the technical result of around €50m after tax owing to foregone premiums. The consolidated result in reinsurance will thus total around €2.3bn, approximately €1.6bn more than in the previous year.

In life and health reinsurance, we anticipate COVID-19-related losses of around €200m in 2021. Overall, we expect to see a distinctly growing result contribution and we anticipate a technical result, including reinsurance treaties with non-significant risk transfer, of around €400m.

We expect a combined ratio of around 96% in property-casualty reinsurance, with COVID-19-related losses of around €300m. Adjusted for these expected losses related to COVID-19, the combined ratio would be around 95%.

The reinsurance renewals as at 1 January 2021 once again took place in a very competitive market environment. The capacity of reinsurers and capital market participants in the renewals remained high. Prices for the Munich Re portfolio increased by 2.4%. Economic profitability was negatively impacted by the sustained low level of interest rates.

As at 1 January 2021, around two-thirds of the non-life reinsurance business was up for renewal, representing a premium volume of €10.5bn. Total premium volume written increased by 10.9% to around €11.6bn. Thanks to our excellent client relationships and our expertise, we were able to tap into attractive business opportunities across all regions and classes of business. These involved the expansion of existing client relationships as well as new business.

The renewals at 1 April 2021 (above all in Japan) and 1 July 2021 (parts of the portfolio in the USA, Australia and Latin America) will involve the renegotiation of a premium volume of around €5.9bn in reinsurance treaty business. It is Munich Re's expectation that the recent price increases will continue in these renewal rounds, too.

ERGO

Gross premiums written in the ERGO field of business in 2021 should be around the previous year's level at approximately €17.5bn. We anticipate that COVID-19 will have a negative impact on the result amounting to €90–100m after tax. Despite the impact of COVID-19, we predict that the 2021 consolidated result will be at roughly the same level as in 2020, i.e. around €500m.

The combined ratio for the Property-casualty Germany segment should be around 92% provided major losses are at a normal level. Adjusted for the impact of COVID-19, the combined ratio would be around 91%.

Assuming that major losses remain within normal bounds, we are aiming for a combined ratio of around 93% in the ERGO International segment.

Munich Reinsurance Company (information reported on the basis of German accountancy rules)

For the 2020 financial year, Munich Re again utilised the option of publishing a combined management report in accordance with Section 315(5) in conjunction with Section 298(2) of the German Commercial Code (HGB). Supplementary to our Munich Re (Group) reporting, this section provides details on the performance of Munich Reinsurance Company.

The annual financial statements of Munich Reinsurance Company are prepared in accordance with German accounting rules (HGB). By contrast, the consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRSs). As a result, there are some deviations in the accounting policies – mainly with regard to intangible assets, investments, financial instruments, individual underwriting assets and liabilities, and deferred taxes.

Market environment and major factors of influence

The macroeconomic and industry environment of Munich Reinsurance Company essentially corresponds to that of the Group. Please see the section Macroeconomic and industry environment for more detailed information.

Business performance

The business performance of Munich Reinsurance Company improved in the 2020 financial year compared to the previous year, chiefly thanks to lower expenditure for natural catastrophe losses, even though 2020 saw significant COVID-19-related losses (totalling around €2,800m) in a large number of classes of business, in particular event cancellation and business interruption. As a result, major losses were much higher than in the previous year, and significantly exceeded our original expectations. By contrast, the release of loss reserves for prior accident years, which we were able to make following a review of our reserving position, made a positive contribution to the underwriting result before claims equalisation provision.

The accounting result of Munich Reinsurance Company developed as follows:

Condensed income statement for Munich Reinsurance Company

	2020	Prev. year	Change
	€m	€m	%
Earned premiums for own account	20,588	18,734	9.9
Interest on technical provisions for own account	360	367	–2.0
Other underwriting income for own account	53	16	228.8
Claims incurred for own account	–16,500	–13,535	–21.9
Change in other technical provisions for own account	338	229	47.6
Expenses for performance-related and non-performance-related premium refunds for own account	–1	–1	–60.3
Operating expenses for own account	–5,311	–5,641	5.9
Other underwriting expenses for own account	–15	–7	–113.2
Subtotal	**–488**	**162**	**–**
Change in claims equalisation provision and similar provisions	–772	–795	2.8
Underwriting result for own account	**–1,260**	**–632**	**–99.3**
Investment income	7,050	4,856	45.2
Investment expenses	–2,180	–1,754	–24.3
Interest income on technical provisions	–388	–391	0.7
Other income	537	1,288	–58.3
Other expenses	–445	–1,340	66.8
Non-technical result	**4,574**	**2,658**	**72.1**
Operating result before tax	**3,314**	**2,026**	**63.6**
Taxes on income and profit and other taxes	–133	–534	75.0
Profit for the year	**3,180**	**1,492**	**113.2**
Profit brought forward from previous year	41	48	–14.4
Transfers from other revenue reserves	0	0	–
Appropriations to revenue reserves	–1,590	–126	<-1.000,0
Net retained profits	**1,632**	**1,414**	**15.4**

Technical result

In the 2020 financial year, Munich Reinsurance Company's gross premium income totalled €25,152m (22,814m). The year-on-year increase of 10.2% chiefly resulted from the realisation of profitable growth opportunities in writing new business and expanding existing business. Changes in the value of the euro as against other currencies had a slightly dampening effect.

Gross premium volume in life and health reinsurance was higher in 2020 than in the previous year. Gross premium rose by 5.3% to €8,470m (8,041m), chiefly on account of new business in the UK. If exchange rates had remained unchanged, our premium income in life and health reinsurance would have increased by 6.3%.

In property-casualty reinsurance, we posted growth in gross premium income of 12.9% to €16,682m (14,773m) in 2020. The increase was due to an expansion of business across almost all lines and regions, and was dampened slightly by negative currency effects. If exchange rates had remained the same, premium volume would have been up by 13.8%.

Reinsurance treaty renewals once again took place in a very competitive market environment. The slightly positive price trend continued, such that prices improved overall. Price trends varied among market segments in accordance with varying levels of capacity, claims experience, and demand. Prices rose – considerably in some instances – for reinsurance cover in regions and classes of business with high loss experience, while they remained relatively stable in regions and classes of business with low expected losses. Munich Re takes the different price trends into account and has withdrawn from business that no longer met risk-return expectations. All in all, prices for the Munich Re portfolio increased by around 1.8%. Overall, we are adhering to our profit-oriented underwriting policy.

The underwriting result before claims equalisation provision amounted to –€488m in the 2020 financial year, compared with a profit of €162m in the previous year. This decline in the result was essentially due to extremely high major-loss expenditure in comparison with the previous year. Furthermore, our customary review of provisions for the full year resulted in a lower reduction in the provisions for claims from prior years. Over the years, the safety margin in the provisions has remained unchanged at a high level.

Major-loss expenditure totalling €3,565m (2,686m) after retrocession and before tax was significantly higher than in the previous year and exceeded our expectations. There were again a large number of major losses in 2020. The financial year was marked by high losses in connection with COVID-19; these affected a large number of classes of business, especially event cancellation and business interruption, and totalled around €2,800m.

At €196m (1,884m), aggregate losses from natural catastrophes were significantly lower than in the previous year, accounting for 1.3 (13.3) percentage points of the loss ratio in terms of net earned premiums. In property-casualty reinsurance, man-made major losses were up significantly year on year, totalling €3,323m (790m) – mostly owing to very high COVID-19-related losses. This is equivalent to 21.4 (5.6) percentage points of net earned premium.

The combined ratio, which reflects the relation of claims and costs to net earned premiums, came to 103.5% (98.4%) overall, mainly owing to the above effects.

Performance of the classes of business

Life

		2020	Prev. year	Change
				%
Gross premiums written	€m	6,928	6,616	4.7
Underwriting result before claims equalisation provision and similar provisions	€m	65	–61	–

In life reinsurance, the rise in premium income was chiefly attributable to new business from longevity treaties in the UK. The technical result was significantly above the level of the previous year. The previous year's result had chiefly been burdened by losses from our Australian disability business; this impact was significantly reduced in the reporting year.

Health

		2020	Prev. year	Change
				%
Gross premiums written	€m	1,541	1,425	8.1
Combined ratio	%	98.3	98.8	
Underwriting result before claims equalisation provision and similar provisions	€m	18	14	28.6

Premium income in health reinsurance increased in the reporting year thanks to new business, in particular in Asia. The result saw a modest increase year on year due to a reduction in the expense ratio.

Personal accident

		2020	Prev. year	Change
				%
Gross premiums written	€m	297	330	-10.0
Combined ratio	%	127.9	57.8	
Underwriting result before claims equalisation provision and similar provisions	€m	-76	125	–

In personal accident reinsurance, premium income was down in the reporting year owing to the cancellation of unprofitable business. The result before claims equalisation provision decreased substantially owing to much higher claims expenditure than in the previous year.

Third-party liability

		2020	Prev. year	Change
				%
Gross premiums written	€m	2,925	2,220	31.8
Combined ratio	%	106.3	79.2	
Underwriting result before claims equalisation provision and similar provisions	€m	-168	440	–

In third-party liability reinsurance, premium income strongly increased in the reporting year mainly on account of new business and business growth in the UK and Asia. By contrast, the underwriting result before claims equalisation provision worsened significantly compared with the previous year, mostly owing to higher loss and major-loss expenditure, and lower reserve releases for claims from prior accident years.

Motor

		2020	Prev. year	Change
				%
Gross premiums written	€m	3,783	3,788	-0.1
Combined ratio	%	93.3	97.0	
Underwriting result before claims equalisation provision and similar provisions	€m	227	98	131.6

Premium income in motor reinsurance remained almost constant year on year. The improved technical result was mainly due to a lower expense ratio.

Marine

		2020	Prev. year	Change
				%
Gross premiums written	€m	431	394	9.4
Combined ratio	%	90.1	86.7	
Underwriting result before claims equalisation provision and similar provisions	€m	33	42	-21.4

In marine reinsurance, premium income increased in the reporting year, mainly on account of new business. The underwriting result before claims equalisation provision saw a slight decrease year on year owing to a higher loss ratio.

Aviation

		2020	Prev. year	Change
				%
Gross premiums written	€m	586	492	19.1
Combined ratio	%	94.2	166.3	
Underwriting result before claims equalisation provision and similar provisions	€m	32	-315	–

Premium income in aviation reinsurance, which comprises the aviation and space classes, saw an increase in the financial year because of improved rates. The underwriting result before claims equalisation provision, which in the previous year had shown a loss, moved into positive territory, largely owing to a substantial year-on-year decrease in major-loss expenditure.

Fire

		2020	Prev. year	Change
				%
Gross premiums written	€m	2,955	4,099	-27.9
Combined ratio	%	112.5	112.3	
Underwriting result before claims equalisation provision and similar provisions	€m	-305	-410	25.6

Due to a new, more precise categorisation by class of business, there were changes in the distribution of premium income and underwriting results among fire and other classes of business. This was the main reason for the substantial decrease in premium income and the improved underwriting result.

Engineering

		2020	Prev. year	Change
				%
Gross premiums written	€m	776	647	19.9
Combined ratio	%	79.9	77.8	
Underwriting result before claims equalisation provision and similar provisions	€m	137	131	4.6

In engineering reinsurance (machinery, EAR, CAR, EEI, etc.), premium income saw a slight year-on-year increase due to business growth. The underwriting result was up slightly on the previous year.

Other classes

		2020	Prev. year	Change
				%
Gross premiums written	€m	4,928	2,804	75.7
Combined ratio	%	111.0	96.0	
Underwriting result before claims equalisation provision and similar provisions	€m	-451	99	-

Under other classes of business, we subsume the remaining classes of property reinsurance, such as burglary, plate glass, hail (including agricultural reinsurance), water damage, contingency, windstorm, livestock and householders' and homeowners' comprehensive reinsurance as well as credit reinsurance.

Due to a new, more precise categorisation by class of business, there were changes in the distribution of premium income and underwriting results among fire and other classes of business. This was the main reason for the substantial increase in premium income. In addition, the year-on-year increase in premium income was driven by new business and the expansion of existing business in various markets, as well as improved rates. Due to the new categorisation by class of business, negative underwriting result was allocated from fire to other classes of business. In addition, high COVID-19 losses contributed to the significantly negative result.

As the effects from the more precise categorisation by class of business largely balanced each other out across all classes of business, the impact on the underwriting result was minor overall.

Non-technical result

The COVID-19 pandemic and the measures deployed to counteract it in 2020 plunged the global economy into its most severe crisis in decades. Global economic output fell sharply on the previous year. The economies in the United States, the eurozone, Japan and the United Kingdom were in a deep recession. Although the Chinese economy began recovering from its sharp drop as early as the spring, it managed only a low average growth rate in 2020. The rates of inflation in advanced economies were lower on average than in the previous year; in the eurozone and Japan, inflation was very low.

Many central banks took far-reaching measures to cushion the impact of the economic crisis and to stabilise the financial system. Yields on ten-year government bonds in the United States and Germany dropped to record lows in 2020. A minor recovery notwithstanding, yields in late December were still down on the start of the year. Yields on ten-year government bonds in Germany remained in negative territory.

Volatility in international financial markets was very high. Equity markets worldwide fell sharply in response to the rapid spread of the coronavirus, and on account of an escalation in the oil market's price war. Important equity indices, such as the US Dow Jones and the DJ EuroStoxx 50, were down more than a third in mid-March from their levels at the end of 2019. Following massive intervention by central banks and pledges of extensive fiscal measures, a lot of equity markets proceeded to rebound strongly.

Currency markets likewise experienced sharp fluctuations. At the end of December, the US dollar, the Canadian dollar and the British pound were all much lower against the euro compared with the end of 2019.

In the 2020 financial year, Munich Reinsurance Company's return on investment (including deposits retained on assumed reinsurance) totalled 6.4% (4.1%) on the basis of carrying amounts.

Investment result

€m	2020	Prev. year
Regular income	3,192	2,351
Write-ups and write-downs	–559	301
Realised gains/losses on the disposal of investments	2,328	376
Other income/expenses	–92	74
Total	**4,870**	**3,102**

In the 2020 financial year, Munich Reinsurance Company's investment result was up by €1,768m, mainly due to an increase in gains on disposal resulting from property contributions to affiliated companies of Munich Reinsurance Company, taking into account organisational, tax and commercial law aspects.

Opposing effects from higher regular income and a change in net write-ups and write-downs nearly balanced each other out.

Profit for the year

Munich Reinsurance Company generated a profit of €3,180m (1,492m), appreciably up on the previous year's figure. The lower technical result was more than offset by a significantly improved investment result and lower tax expenditure.

The lower tax expenditure was chiefly due to a significant fall in permanent establishments' results. In addition, the utilisation of loss carry-forwards and the German parent company's lower tax burden from previous years helped to further reduce tax expenditure.

Financial position

Balance sheet structure of Munich Reinsurance Company

€m	2020	Prev. year	Change
	€m	€m	%
Intangible assets	147	167	–12.1
Investments	76,765	75,622	1.5
Receivables	19,828	16,526	20.0
Other assets	842	655	28.5
Deferred items	207	203	1.6
Excess of plan assets over pension liabilities	642	570	12.6
Total assets	**98,430**	**93,743**	**5.0**
Equity	12,362	10,894	13.5
Subordinated liabilities	4,903	3,681	33.2
Technical provisions	64,179	63,431	1.2
Other provisions	1,819	2,001	–9.1
Deposits retained on retroceded business	2,049	1,751	17.0
Other liabilities	13,088	11,957	9.5
Deferred items	31	28	12.7
Total equity and liabilities	**98,430**	**93,743**	**5.0**

In the 2020 financial year, Munich Reinsurance Company generated net retained profits of €1,632m (1,414m) according to German accountancy rules (HGB). Including these net retained profits, the Company's revenue reserves amounted to €4,930m (3,474m) as at the reporting date, of which €640m (523m) is subject to a restriction on distribution. The distributable funds thus amount to €4,290m (2,951m).

The shareholders' equity of Munich Reinsurance Company as determined under German accountancy rules is protected against the risk of loss arising from a random accumulation of losses by the claims equalisation provision totalling €10,020m (9,261m). Given our robust capital position according to all calculation methods, we intend – subject to the approval of the Annual General Meeting – to pay our shareholders an unchanged dividend of €9.80 per share for the 2020 financial year, or €1,373m in total, from Munich Reinsurance Company's net retained profits.

The carrying amount of Munich Reinsurance Company's investments excluding deposits retained on assumed reinsurance increased slightly to €67,893m (64,465m).

As at 31 December 2020, 87% of our fixed-interest securities were rated "A" or better. Overall, 95% of our fixed-interest securities were investment-grade at the reporting date.

Equity[1]

€m	2020	Prev. year
Issued capital	588	576
Capital reserve	6,845	6,845
Revenue reserves	3,298	2,059
Net retained profits	1,632	1,414
Equity	**12,362**	**10,894**

1 Information on Section 160(1) no. 2 of the German Stock Corporation Act (AktG) can be found in Note 6 of Munich Reinsurance Company's Annual Report 2020.

Pursuant to German commercial and company law, dividends and share buy-backs may only be paid out of profits and revenue reserves. Besides the expenses and income incurred in the current year, changes in the claims equalisation provision also have a significant influence on the level of profits for the year.

The claims equalisation provision is established for individual classes of property-casualty business. It serves to smooth significant fluctuations in loss experience over a number of years. Its recognition and measurement are largely governed by legal provisions.

If, in a given financial year, loss ratios in individual classes of business are significantly in excess of the long-term average (which amounts to 15 years in most classes), the claims equalisation provision is reduced and the above-average loss expenditure is largely offset. According to current calculations, it is expected that – given normal claims expenditure in the 2021 financial year – the allocations to the claims equalisation provision, which have an adverse impact on the result, will be lower.

The target or maximum amount allowed for the claims equalisation provision, which is essentially calculated on the basis of earned premiums and the standard deviation of the loss ratio in the respective class of insurance, determines the amount of the annual non-performance-related allocation to the claims equalisation provision. The performance-related change in the claims equalisation provision is added to this figure in years in which claims experience is favourable (i.e. when the random occurrence of claims is below average), whereas amounts are withdrawn in years in which claims experience is adverse (i.e. the random occurrence of claims is above average).

The balance sheet item "claims equalisation provision and similar provisions" increased by €772m to €10,609m (9,837m) in the 2020 financial year. Owing to the positive results, we had to allocate significant amounts to the claims equalisation provision in some classes of business – especially in third-party liability €363m (226m), other classes of business a total of €218m (–109m), engineering €134m (145m), motor €61m (164m), fire €61m (–337m) and aviation €43m (0m).

By contrast, due to negative results, the claims equalisation provision in personal accident reinsurance was reduced by €70m (+€174m), credit by €33m (+€480m) and marine by €17m (+€40m).

The current level of the claims equalisation provision is 100% of the legally stipulated maximum amount allowed in the motor class of business, and more than 50% in fire, third-party liability, credit, engineering, marine and personal accident business.

Liquidity

Our liquidity is ensured at all times by means of detailed liquidity planning. As a rule, the Company generates significant liquidity from its premium income, from regular investment income and from investments that mature. We also attach great importance to the credit rating and fungibility of our investments. Given the maturity structure of the outstanding bonds and the credit facilities employed (which are, in any case, relatively insignificant in scope), there are no refinancing requirements.

Statement on Corporate Governance for the 2020 financial year pursuant to Section 289f and Section 315d of the German Commercial Code (HGB)

Munich Reinsurance Company has submitted the Statement of Corporate Governance in accordance with Section 289f of the Commercial Code (HGB), and the Group Statement of Corporate Governance in accordance with Section 315d of the Commercial Code. The statements have been combined and can be found in the section on corporate governance. Pursuant to Section 317(2) sentence 6 of the Commercial Code, the audit of statements by the auditors is limited to whether or not this has been done. The combined Statement on Corporate Governance can be found on the Munich Re website at www.munichre.com/cg-en.

Further information

Risks and opportunities

The business performance of Munich Reinsurance Company is largely subject to the same risks and opportunities as the performance of the reinsurance field of business presented in the consolidated financial statements. Munich Reinsurance Company generally participates in the risks of its shareholdings and subsidiaries in accordance with its respective percentage interest held. Munich Reinsurance Company is integrated in the Group-wide risk management system and internal control system of the Group. Further information is provided in the risk report and the opportunities report.

Remuneration report of Munich Reinsurance Company

The principles regarding the structure and design of the compensation system of Munich Reinsurance Company correspond to those of the Group. Further information is provided in the remuneration report.

Other information

On 31 December 2020, Munich Reinsurance Company had 4,048 employees.

Munich Reinsurance Company has branches in Australia, China, France, the United Kingdom, Hong Kong, India, Italy, Japan, Canada, Malaysia, New Zealand, Singapore, Spain and South Korea.

Prospects

The projections by Munich Reinsurance Company about the future development of its business are essentially subject to the same influences as the reinsurance life and health and reinsurance property-casualty segments presented in the consolidated financial statements. You can find this information in the outlook 2021.

Munich Reinsurance Company anticipates further COVID-19-related losses in 2021, though to a much lesser degree than in 2020. Owing to fragile macroeconomic developments, volatile capital markets and the unclear future of the pandemic, all forecasts are subject to considerable uncertainty.

Munich Reinsurance Company should post gross premium of around €26bn in the 2021 financial year – assuming that exchange rates remain constant. We expect the combined ratio to be around 96% of net earned premium. An accurate forecast is not possible, partly due to the obvious fluctuations in the incidence of major losses. Assuming average claims experience and significantly lower COVID-19-related losses, we project that the overall underwriting result before claims equalisation provision for the 2021 financial year will be better than in the reporting year.

The investment result of Munich Reinsurance Company is expected to decrease substantially in the 2021 financial year, as we expect significantly lower gains on disposals as well as a reduction in regular income.

As things stand at present, we expect to achieve an adequate German GAAP (HGB) result in 2021, although it is likely to be considerably lower than in the reporting year.

Consolidated financial statements and notes

Consolidated balance sheet as at 31 December 2020[1]

Assets

	Notes			31.12.2020	Prev. year		Change
		€m	€m	€m	€m	€m	%
A. Intangible assets							
I. Goodwill	(1)		2,782		2,941	–159	–5.4
II. Other intangible assets	(2)		1,223		1,240	–17	–1.4
				4,005	**4,180**	**–175**	**–4.2**
B. Investments							
I. Land and buildings, including buildings on third-party land	(3)		6,539		5,989	550	9.2
II. Investments in affiliated companies, associates and joint ventures	(5)		3,372		2,847	525	18.4
Thereof: Associates and joint ventures accounted for using the equity method			3,104		2,625	480	18.3
III. Loans	(6)		51,944		52,507	–563	–1.1
IV. Other securities							
1. Available for sale	(7)	155,389			151,558	3,831	2.5
2. At fair value through profit or loss	(8)	2,927			2,781	146	5.2
			158,316		154,338	3,977	2.6
V. Deposits retained on assumed reinsurance	(9)		7,980		7,938	41	0.5
VI. Other investments	(10)		4,800		5,144	–344	–6.7
				232,950	**228,764**	**4,186**	**1.8**
C. Insurance-related investments	**(8)**			**11,033**	**9,163**	**1,870**	**20.4**
D. Ceded share of technical provisions	**(11)**			**5,321**	**4,937**	**384**	**7.8**
E. Receivables							
I. Current tax receivables			765		699	66	9.5
II. Other receivables	(12)		25,431		21,539	3,891	18.1
				26,196	**22,238**	**3,957**	**17.8**
F. Cash at banks, cheques and cash in hand				**5,615**	**4,994**	**621**	**12.4**
G. Deferred acquisition costs	**(13)**						
Gross			9,617		9,664	–47	–0.5
Ceded share			–498		–393	–106	–26.9
Net				9,119	9,272	–153	–1.6
H. Deferred tax assets	**(14)**			**278**	**316**	**–38**	**–12.0**
I. Other assets	**(15)**			**3,215**	**3,289**	**–74**	**–2.2**
J. Non-current assets held for sale	**(16)**			**215**	**400**	**–185**	**–46.2**
Total assets				**297,946**	**287,553**	**10,393**	**3.6**

1 You can download this information as an Excel file; please refer to the Financial Supplement under www.munichre.com/results-reports.

Equity and liabilities

	Notes	31.12.2020		Prev. year		Change
		€m	€m	€m	€m	%
A. Equity	(17)					
I. Issued capital and capital reserve		7,432		7,421	12	0.2
II. Retained earnings		13,568		12,804	764	6.0
III. Other reserves		7,683		7,510	173	2.3
IV. Consolidated result attributable to Munich Reinsurance Company equity holders		1,211		2,724	–1,513	–55.5
V. Non-controlling interests		100		117	–17	–14.4
			29,994	**30,576**	**–582**	**–1.9**
B. Subordinated liabilities	**(19)**		**5,047**	**3,839**	**1,208**	**31.5**
C. Gross technical provisions						
I. Unearned premiums	(20)	10,964		10,518	446	4.2
II. Provision for future policy benefits	(21)	112,928		112,302	626	0.6
III. Provision for outstanding claims	(22)	72,475		70,875	1,600	2.3
IV. Other technical provisions	(23)	22,478		21,011	1,467	7.0
			218,846	**214,706**	**4,139**	**1.9**
D. Gross technical provisions for unit-linked life insurance	**(24)**		**7,955**	**8,172**	**–216**	**–2.6**
E. Other provisions	**(25)**		**5,438**	**5,291**	**147**	**2.8**
F. Liabilities						
I. Bonds and notes issued	(26)	272		297	–24	–8.2
II. Deposits retained on ceded business	(27)	1,261		1,028	233	22.7
III. Current tax liabilities		1,823		1,913	–91	–4.7
IV. Other liabilities	(28)	24,895		19,643	5,251	26.7
			28,251	**22,882**	**5,369**	**23.5**
G. Deferred tax liabilities	**(14)**		**2,293**	**1,908**	**385**	**20.2**
H. Liabilities related to non-current assets held for sale	**(16)**		**123**	**179**	**–57**	**–31.7**
Total equity and liabilities			**297,946**	**287,553**	**10,393**	**3.6**

Consolidated income statement for the 2020 financial year[1, 2]

	Notes			2020	Prev. year		Change
		€m	€m	€m	€m	€m	%
Gross premiums written		**54,890**			**51,457**	**3,433**	**6.7**
1. Earned premiums	**(30)**						
Gross		53,788			50,873	2,915	5.7
Ceded share		−2,566			−2,594	28	1.1
Net			51,223		48,280	2,943	6.1
2. Income from technical interest	**(31)**		**5,270**		**6,745**	**−1,475**	**−21.9**
3. Expenses for claims and benefits	**(32)**						
Gross		−44,635			−41,058	−3,577	−8.7
Ceded share		1,558			1,373	184	13.4
Net			−43,077		−39,685	−3,393	−8.5
4. Operating expenses	**(33)**						
Gross		−13,379			−13,616	237	1.7
Ceded share		564			560	4	0.8
Net			−12,815		−13,056	242	1.9
5. Technical result (1–4)				**600**	**2,283**	**−1,683**	**−73.7**
6. Investment result	**(34)**		**7,398**		**7,822**	**−424**	**−5.4**
Thereof: Income from associates and joint ventures accounted for using the equity method			155		207	−52	−25.0
7. Insurance-related investment result	**(35)**		**105**		**1,182**	**−1,077**	**−91.1**
8. Other operating income	**(36)**		**1,168**		**1,178**	**−9**	**−0.8**
9. Other operating expenses	**(36)**		**−2,016**		**−2,290**	**274**	**12.0**
10. Deduction of income from technical interest			**−5,270**		**−6,745**	**1,475**	**21.9**
11. Non-technical result (6–10)				**1,386**	**1,147**	**239**	**20.8**
12. Operating result				**1,986**	**3,430**	**−1,444**	**−42.1**
13. Other non-operating result	**(37)**			**−83**	**−91**	**8**	**9.3**
14. Currency result	**(37)**			**−200**	**73**	**−272**	**–**
15. Net finance costs	**(37)**			**−223**	**−222**	**−1**	**−0.7**
16. Taxes on income	**(38)**			**−269**	**−483**	**213**	**44.2**
17. Consolidated result				**1,211**	**2,707**	**−1,496**	**−55.3**
Thereof: Attributable to Munich Reinsurance Company equity holders				1,211	2,724	−1,513	−55.5
Attributable to non-controlling interests	(17)			0	−17	17	99.0
	Notes			€	€	€	%
Earnings per share	**(52)**			**8.63**	**18.97**	**−10.33**	**−54.5**

1 Previous year's figures adjusted owing to IAS 1 and IAS 8; see section Changes in accounting policies and other adjustments.
2 You can download this information as an Excel file; please refer to the Financial Supplement under www.munichre.com/results-reports.

Statement of recognised income and expense for the 2020 financial year

€m	2020	Prev. year
Consolidated result	**1,211**	**2,707**
Currency translation		
Gains (losses) recognised in equity	–1,392	422
Recognised in the consolidated income statement	0	0
Unrealised gains and losses on investments		
Gains (losses) recognised in equity	2,939	4,514
Recognised in the consolidated income statement	–1,284	–853
Change resulting from equity method measurement		
Gains (losses) recognised in equity	–21	–15
Recognised in the consolidated income statement	–71	0
Change resulting from cash flow hedges		
Gains (losses) recognised in equity	–2	1
Recognised in the consolidated income statement	0	0
Other changes	–1	4
I. Items where income and expenses recognised directly in equity are reallocated into the consolidated income statement	168	4,073
Remeasurements of defined benefit plans	–204	–411
Other changes	0	0
II. Items where income and expenses recognised directly in equity are not reallocated to the consolidated income statement	–204	–411
Income and expense recognised directly in equity (I + II)	**–36**	**3,661**
Total recognised income and expense	**1,175**	**6,369**
Thereof:		
Attributable to Munich Reinsurance Company equity holders	1,172	6,382
Attributable to non-controlling interests	4	–14

Group statement of changes in equity for the 2020 financial year

€m	Issued capital	Capital reserve
Balance at 31.12.2018	**573**	**6,845**
Allocation to retained earnings	0	0
Consolidated result	0	0
Income and expense recognised directly in equity	0	0
Currency translation	0	0
Unrealised gains and losses on investments	0	0
Change resulting from equity method measurement	0	0
Change resulting from cash flow hedges	0	0
Remeasurements of defined benefit plans	0	0
Other changes	0	0
Total recognised income and expense	0	0
Change in shareholdings in subsidiaries	0	0
Change in consolidated group	0	0
Dividend	0	0
Purchase of own shares	–17	0
Retirement of own shares	21	0
Balance at 31.12.2019	**576**	**6,845**
Allocation to retained earnings	0	0
Consolidated result	0	0
Income and expense recognised directly in equity	0	0
Currency translation	0	0
Unrealised gains and losses on investments	0	0
Change resulting from equity method measurement	0	0
Change resulting from cash flow hedges	0	0
Remeasurements of defined benefit plans	0	0
Other changes	0	0
Total recognised income and expense	0	0
Change in shareholdings in subsidiaries	0	0
Change in consolidated group	0	0
Dividend	0	0
Purchase of own shares	–6	0
Retirement of own shares	17	0
Balance at 31.12.2020	**588**	**6,845**

					Equity attributable to Munich Reinsurance Company equity holders	Non-controlling interests	Total equity
Retained earnings		Other reserves			Consolidated result		
Retained earnings before deduction of own shares	Treasury shares	Unrealised gains and losses	Currency translation reserve	Remeasurement gains/losses from cash flow hedges			
13,883	**–681**	**2,715**	**709**	**16**	**2,310**	**131**	**26,500**
975	0	0	0	0	–975	0	0
0	0	0	0	0	2,724	–17	2,707
–412	0	3,647	422	1	0	3	3,661
0	0	0	422	0	0	0	422
0	0	3,655	0	0	0	6	3,661
–7	0	–8	0	0	0	0	–15
0	0	0	0	1	0	0	1
–409	0	0	0	0	0	–3	–411
4	0	0	0	0	0	0	4
–412	0	3,647	422	1	2,724	–14	6,369
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	–1,335	–1	–1,336
0	–939	0	0	0	0	0	–957
–1,000	979	0	0	0	0	0	0
13,445	**–641**	**6,362**	**1,131**	**17**	**2,724**	**117**	**30,576**
1,351	0	0	0	0	–1,351	0	0
0	0	0	0	0	1,211	0	1,211
–213	0	1,574	–1,393	–8	0	4	–36
0	0	0	–1,393	0	0	0	–1,392
0	0	1,651	0	0	0	4	1,654
–8	0	–77	0	–6	0	0	–91
0	0	0	0	–2	0	0	–2
–205	0	0	0	0	0	1	–204
–1	0	0	0	0	0	0	–1
–213	0	1,574	–1,393	–8	1,211	4	1,175
–3	0	0	0	0	0	–5	–8
0	0	0	0	0	0	–1	–1
0	0	0	0	0	–1,373	–15	–1,388
0	–354	0	0	0	0	0	–359
–1,012	995	0	0	0	0	0	0
13,568	**0**	**7,936**	**–262**	**9**	**1,211**	**100**	**29,994**

Consolidated cash flow statement for the 2020 financial year

€m	2020	Prev. year
Consolidated result	**1,211**	**2,707**
Net change in technical provisions	5,264	11,816
Change in deferred acquisition costs	29	–150
Change in deposits retained	209	96
Change in other receivables and liabilities	597	–2,798
Gains and losses on the disposal of investments and insurance-related investments	–3,838	–1,715
Change in securities at fair value through profit or loss	–95	–889
Change in other balance sheet items	815	1,277
Other non-cash income and expenses	3,027	–850
I. Cash flows from operating activities	7,219	9,493
Change from losing control of consolidated subsidiaries	2	–59
Change from obtaining control of consolidated subsidiaries	–2	–1
Change from the acquisition, sale and maturity of investments	–3,585	–6,564
Change from the acquisition, sale and maturity of insurance-related investments	–2,504	377
Other	–46	–673
II. Cash flows from investing activities	–6,135	–6,919
Inflows from increases in capital and from non-controlling interests	0	0
Outflows to ownership interests and non-controlling interests	–359	–957
Dividend payments	–1,388	–1,336
Change from other financing activities	1,424	–204
III. Cash flows from financing activities	–323	–2,496
Cash flows for the financial year (I + II + III)[1]	**761**	**78**
Effect of exchange-rate changes on cash and cash equivalents	–134	–57
Cash at the beginning of the financial year	4,994	4,986
Cash at the end of the financial year	5,620	5,006
Thereof:		
Cash not attributable to disposal group[2]	5,615	4,994
Cash attributable to disposal group	5	12
Restricted cash	8	11
Additional information		
Income tax paid (net) – included in the cash inflows from operating activities	–263	–392
Dividends received	775	792
Interest received	4,915	5,359
Interest paid	–385	–406

1 Cash mainly comprises cash at banks.
2 For a definition of the disposal group, see Assets J – Non-current assets held for sale.

Notes to the consolidated financial statements

Application of International Financial Reporting Standards (IFRSs)

Munich Re's consolidated financial statements have been prepared on the basis of the International Financial Reporting Standards (IFRSs), as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e(1) of the German Commercial Code (HGB).

Declaration of Conformity with the German Corporate Governance Code in accordance with Section 161 of the German Stock Corporation Act (AktG)

In November 2020, the Board of Management and Supervisory Board of Munich Reinsurance Company published an updated Declaration of Conformity with the German Corporate Governance Code in accordance with Section 161 of the German Stock Corporation Act (AktG), and made this Declaration permanently available to shareholders on the internet at www.munichre.com/cg-en.

Recognition and measurement

Use of judgements and estimates in recognition and measurement

In preparing the consolidated financial statements, preparers must use their judgement in applying accounting policies, and make specific estimates and assumptions that affect the items shown in the consolidated balance sheet, the consolidated income statement and the disclosures on contingent liabilities.

Particularly in primary insurance and reinsurance, the use of estimates is of substantial significance in measuring technical provisions, given that measurement is based on models and the development of future cash flows from insurance contracts cannot be conclusively predicted. Judgements and estimates also play a significant role in the case of other items as well as in determining the basis of consolidation.

Our internal processes are geared to determining amounts as accurately as possible, taking into account all the relevant information. The basis for determining amounts is management's best knowledge regarding the items concerned at the reporting date. Nevertheless, it is in the nature of these items that estimates may have to be adjusted in the course of time to take account of new knowledge.

Discretionary judgements and estimates are of significance for the following items in particular and are described in more detail in the relevant disclosures:

- Consolidated group
- Goodwill and other intangible assets
- Fair values of and impairment losses on financial instruments
- Deferred acquisition costs
- Technical provisions
- Provisions for post-employment benefits
- Deferred tax
- Contingent liabilities

Presentation currency and rounding of figures

Our presentation currency is the euro (€). Amounts are rounded to million euros. Due to rounding, there may be minor deviations in summations and in the calculation of percentages, with figures in brackets referring to the previous year. We only add plus or minus signs where it is not clear from the context whether the amount in question is an expense/outflow or income/inflow.

Figures for previous years

The consolidated income statement and the segment income statement for the 2019 financial year have been adjusted retroactively (see the section entitled Changes in accounting policies and other adjustments). The other previous-year figures have been calculated on the same basis as the figures for the 2020 financial year.

Changes in accounting policies and other adjustments

Application of the recognition, measurement and disclosure methods follows the principle of consistency.

In the 2020 financial year, the following amended IFRSs had to be applied for the first time, after having been adopted into European law.

- Amendments to References to the Conceptual Framework in other IFRSs (rev. 3/2018)
- Amendments to IFRS 3 (rev. 10/2018), Definition of a Business
- Amendments to IAS 1 and IAS 8 (rev. 10/2018), Definition of Material
- Amendments to IFRS 9, IAS 39 and IFRS 7 (rev. 9/2019) with regard to the effects of the IBOR reform (Phase 1)
- Amendments to IFRS 16 (rev. 5/2020), Leases – COVID-19-Related Rent Concessions

The amendments will have little or no material effect on Munich Re, except for the Amendments to IFRS 3 described below.

In addition to a change in the definition of a business, the amendments to **IFRS 3, Definition of a Business,** make it possible in particular to assess more easily whether an acquisition is considered a business with the help of a fair value concentration test.

The high-rise office building at 330 Madison Avenue in New York City acquired on 28 February 2020 was recognised in Q2 2020 as the acquisition of an asset because the fair value of the gross assets acquired was almost entirely attributable to the property. This had no impact on the balance sheet in the Annual Report as at 31 December 2019, in which the acquisition was disclosed as an event after the balance sheet date in the notes to the financial statements.

Munich Re is exercising the option to defer application of IFRS 9, Financial Instruments, until the introduction of IFRS 17, Insurance Contracts, in order to prevent accounting mismatches from arising from the measurement of underwriting liabilities and investments. As a consequence of deferring the introduction of IFRS 9, we must make additional disclosures until we apply the standard for the first time. This will make it possible to compare our presentation of investments and other financial instruments with those of companies that already apply IFRS 9.

To make use of this exception under IFRS 4, it was necessary to document on the basis of the financial statements as at 31 December 2015 that most of the Group's activity is in insurance. Insurance business is considered "predominant" if at the time of measurement more than 90% of total liabilities were related to insurance business. Besides liabilities that fall within the scope of IFRS 4, these also include liabilities from investment contracts measured at fair value and other liabilities resulting from insurance business. At Munich Re, liabilities related to insurance business accounted for a share of around 96.5% of total liabilities as at 31 December 2015.

In the meantime, there have been no changes to our business activities that would necessitate a reassessment.

The measurement of our financial assets under IFRS 9 is partly geared to their contractual cash flows. If these only comprise the payment of principal and interest on the nominal amount outstanding, measurement is based either on amortised cost or – outside profit or loss – on the fair value, depending on the business model. By contrast, equities, derivatives and complex structured products are measured at fair value through profit or loss. The change in the classification criteria as a result of the introduction of IFRS 9 results in a change in the measurement of our financial assets. The following table provides an overview of how we would present these under IFRS 9. The financial assets that meet the cash flow requirement do not include those that are held for trading under IFRS 9 or managed on the basis of their fair value. These are included in the columns that show the instruments which do not meet the cash flow requirement.

Disclosures relating to fair value

	Cash flow requirement met			Cash flow requirement not met		
€m	31.12.2020	Prev. year	Change	31.12.2020	Prev. year	Change
Loans						
Mortgage loans	8,188	7,883	305	0	0	0
Other loans	48,328	48,060	268	8,005	8,491	–487
Other securities available for sale						
Fixed-interest securities						
Government bonds						
Germany	7,349	6,609	740	11	11	0
Rest of EU	28,341	29,922	–1,581	83	91	–8
USA	18,582	17,524	1,058	0	0	0
Other	25,491	21,326	4,165	38	40	–2
Corporate debt securities	**47,971**	**46,898**	**1,073**	**1,131**	**1,092**	**39**
Other	**9,087**	**8,213**	**874**	**320**	**394**	**–74**
Non-fixed-interest securities						
Equities	**0**	**0**	**0**	**10,484**	**13,286**	**–2,802**
Investment funds						
Equity funds	0	0	0	660	453	207
Bond funds	0	0	0	1,677	1,818	–141
Real estate funds	0	0	0	334	328	6
Other	**9**	**0**	**8**	**3,821**	**3,552**	**269**
Other securities at fair value through profit or loss						
Held for trading	15	16	0	2,415	2,220	195
Securities designated as at fair value through profit and loss	116	42	74	381	504	–122
Other investments, deposits with banks	3,441	3,775	–334	0	0	0
Insurance-related investments						
Investments for unit-linked life insurance contracts	0	0	0	7,544	7,726	–182
Insurance contracts without significant risk transfer	0	0	0	10,405	7,272	3,133
Other insurance-related investments	0	0	0	3,489	1,438	
Other receivables, miscellaneous financial receivables	**4,065**	**2,363**	**1,702**			
Cash at banks, cheques and cash in hand	**5,615**	**4,994**	**621**	**0**	**0**	**0**

The following table provides for an assessment of the quality of our investments that will not be measured at fair value through profit or loss in line with IFRS 9 as their contractual cash flows only comprise the payment of principal and interest on the nominal amount outstanding. The amounts shown are the carrying amounts of these investments pursuant to IAS 39, Financial Instruments: Recognition and Measurement.

The table does not include cash with banks, cheques, cash in hand or other receivables. However, these mainly comprise business with counterparties of first-class financial strength with a rating of at least BBB.

Ratings for investments that meet the cash flow requirement

€m	31.12.2020	Prev. year
AAA	65,159	65,957
AA	54,636	53,106
A	24,433	24,722
BBB	26,692	23,622
Lower	7,981	5,765
No rating	886	920
Total	**179,787**	**174,092**

From the Group's perspective, financial assets with a higher credit risk – i.e. rated BB or lower, and measured at amortised cost under IAS 39 – were immaterial.

Financial assets held by subsidiaries already required to use IFRS 9 under national law were also immaterial from the Group's perspective.

On the further discussion of IFRS 9 in conjunction with IFRS 17, Insurance Contracts, see New standards and amendments to standards that are not yet effective.

For several associates and joint ventures that already use IFRS 9 and accounted for in Munich Re's consolidated financial statements using the equity method, we applied the exemption from IAS 28.36 provided in IFRS 4.20O(b) and retained the financial statements of these associates and joint ventures prepared under IFRS 9 when applying the equity method.

Amendments were made to the way we account for project costs, innovation costs and Finance Division costs, in particular in order to show ongoing and one-time expenditure in a more transparent and consistent way. This resulted in reclassifications in the consolidated income statement and segment income statement and in an adjustment of the previous year's figures in line with IAS 1.41. Moreover, the calculation of income from technical interest in the ERGO Life Germany division was developed further, in particular with regard to the consistent allocation of reinsurance. The previous year's figures were adjusted in line with IAS 8.14. Neither change had an impact on the result.

These adjustments affect the consolidated income statement for the year 2019 as follows:

Consolidated income statement

		2019 as originally recognised	Change due to adjustments according to IAS 1 and IAS 8 in 2019	2019
€m				
2.	**Income from technical interest**	**6,729**	**16**	**6,745**
4.	**Operating expenses**			
	Gross	-13,809	193	-13,616
	Net	-13,249	193	-13,056
5.	**Technical result**	**2,074**	**209**	**2,283**
6.	**Investment result**	**7,737**	**85**	**7,822**
7.	**Insurance-related investment result**	**1,176**	**6**	**1,182**
8.	**Other operating income**	**1,093**	**85**	**1,178**
9.	**Other operating expenses**	**-1,347**	**-943**	**-2,290**
10.	**Deduction of income from technical interest**	**-6,729**	**-16**	**-6,745**
11.	**Non-technical result**	**1,930**	**-783**	**1,147**
12.	**Operating result**	**4,004**	**-574**	**3,430**
13.	**Other non-operating result**	**-665**	**574**	**-91**

Material effects on Munich Re as a result of the coronavirus pandemic are mentioned in the combined management report and the Notes. We have subjected all relevant items in the consolidated balance sheet to an appropriate test, including in particular goodwill and fixed-interest securities. With regard to the effects on the technical provisions, please refer to the section Segment reporting and to (21) Provisions for future policy benefits, (22) Provisions for outstanding claims and (32) Expenses for claims and benefits; the effects on our investments are described in (3) Land and buildings, including buildings on third-party land, (7) Other securities available for sale, and (8) Other securities at fair value through profit or loss and insurance-related investments. The analyses conducted did not identify any material impact on further items of the consolidated balance sheet.

New standards and amendments to standards that are not yet effective

Unless otherwise stated, Munich Re intends to initially apply all new standards or amendments to standards that are not yet effective as at the mandatory effective date for entities whose registered office is in the European Union. The relevant dates for mandatory initial application are shown in the following list of new standards.

IFRS 9 (7/2014), Financial Instruments, supersedes the IAS 39 requirements relating to recognition and measurement of financial instruments. In future, financial assets will be categorised on the basis of contractual cash flow characteristics and the business model according to which the asset is managed. Accordingly, they are subsequently measured at amortised cost, at fair value outside profit or loss, or at fair value through profit or loss.

For financial liabilities, there are no changes in the measurement rules except that if the fair value option is applied, value changes attributable to a change in the entity's credit risk must in future be recognised outside profit or loss, provided that this does not create or increase an accounting mismatch.

IFRS 9 sets out an expected loss model for recognising impairment losses, under which – unlike under the current IAS 39 incurred loss model – expected losses are anticipated before they arise and must be recognised as an expense. There will only be one model for recognising impairment losses. It must be used consistently for all financial assets falling under the IFRS 9 impairment rules.

Hedge accounting under IFRS 9 focuses more strongly on the entity's risk management activities than was the case under the current rules of IAS 39.

IFRS 9 requires extensive additional disclosures in the notes that were incorporated in IFRS 7, Financial Instruments: Disclosures.

The requirements are effective for financial years beginning on or after 1 January 2018. As an insurance company, we are exercising the option under IFRS 4 to defer initial application of IFRS 9 in order to implement it at a later date together with IFRS 17. For more information, please see the comments on IFRS 17 below and the section Changes in accounting policies and other adjustments.

A Group-wide project ensures that we implement the required processes within the specified period.

In **IFRS 17 (5/2017), Insurance Contracts,** the IASB has for the first time published a standard that governs the recognition, measurement and disclosure of insurance contracts in a comprehensive and uniform manner. The rules require extensive new disclosures in the notes to the financial statements. The new standard will replace IFRS 4, Insurance Contracts.

IFRS 17 is applicable to all primary insurance contracts, reinsurance contracts and investment contracts with discretionary participation features. The measurement rules are mainly based on a "building block approach", which is made up of a fulfilment value, which comprises the discounted expected future cash flows and an explicit risk adjustment, and a contractual service margin. Under certain conditions, a simplified measurement approach is permitted for short-term contracts. The general measurement model in adjusted form is to be applied to certain primary insurance contracts with participation features and to ceded reinsurance.

Measurement is not made at the individual contract level, but on the basis of portfolios that are subdivided into specified groups based on their profitability and on contracts concluded in annual cohorts. Nearly all cash flows resulting from the rights and obligations under the insurance contracts must be taken into account, which by implication means that certain items currently shown separately in our financial statements will not be included in future.

Another new feature is the clearly stipulated differentiation in the income statement between the technical result – which is precisely defined in IFRS 17 and comprises insurance revenue and insurance service expenses – and insurance finance income or expenses. Insurance revenue is defined in order to allow for comparability with the revenues of other industries. In particular, neither savings premiums ("deposit components") nor certain cedant commissions may now be recognised as revenue components. The new definition will thus require a fundamental rethink of the way we disclose revenue, which currently includes all premium components. If our volume of business remains the same, we thus anticipate appreciable shrinkage in reportable revenues for reinsurance without this affecting the underwriting result.

IFRS 17 contains an option regarding the recognition of changes in value because of amendments to financial inputs. The option allows for recognition either in the income statement or directly in equity. It can be exercised at individual portfolio level.

The new rules require detailed reconciliations to be disclosed for changes to individual measurement components and provision types. Notes about the risks from insurance contracts remain largely unchanged.

In June 2020, a number of substantive amendments to IFRS 17 were published that are geared to improving the quality of the standard and its applicability. For example, it is now possible in many cases for cedants to recognise immediate income from the accounting of reinsurance contracts if these contracts provide cover for loss-producing, underlying primary insurance contracts. In addition, the revised IFRS 17 now provides for a mandatory effective date for financial years beginning on or after 1 January 2023. At the same time, the amendment to IFRS 4 also resulted in a deferral until 2023 of the mandatory initial application of IFRS 9 for those insurance undertakings that do not yet apply this standard, as a result of which the simultaneous initial application of the two standards is still possible.

IFRS 17 will involve fundamental changes to the recognition of insurance and reinsurance contracts and related processes. As the required adjustments involve a considerable amount of work, shortly after the initial publication of the new requirements we set up an implementation project based on preparatory analyses conducted from an early stage in which all the relevant units of reinsurance and primary insurance are involved. Through intense and interdisciplinary cooperation across all units, we continuously ensure that the characteristics of our individual insurance lines of business are considered and implemented in our central IT solution. This includes extensive tests conducted with regard to the accounting of insurance contracts under IFRS 17 and the accounting of financial instruments under IFRS 9.

IFRS 9 was adopted into European law in November 2016 and the amendment to IFRS 4 in December 2020. By contrast, the decision to adopt IFRS 17 at European level is still outstanding and is expected to be taken in the course of 2021.

In August 2020, the IASB published amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (rev. 8/2020) with regard to the effects of the IBOR reform (Phase 2). These new requirements must be applied with effect from 2021, but we will not implement the amendment to IFRS 9 until the initial application of this standard in 2023. In particular, they include rules on how to recognise the adjustments to contractual cash flows that must be made as a result of this amendment. At the same time, disclosures must be made in the notes to the financial statements that enable an assessment of the type and scope of the risks arising from the change in reference rates. Companies must also disclose how they will handle the transition to the new reference rates. We anticipate only minor effects from this transition.

The IASB has also published amendments to the following standards that have not yet been adopted into European law:

- Amendments to IAS 1 (rev. 1/2020), Classification of Liabilities as Current or Non-current and Deferral of Effective Date of this amendment (rev. 7/2020)
- Amendments published under the project Annual Improvements to IFRSs, 2018–2020 (rev. 5/20) Cycle: amendments to IFRS 1, First-time Adoption of International Financial Reporting Standards; amendments to IFRS 9, Financial Instruments; IFRS 16, Leases; and IAS 41, Agriculture
- IFRS 3 (rev. 5/2020), Business Combinations, References to the Conceptual Framework
- IAS 16 (rev. 5/2020), Property, Plant and Equipment – Proceeds before Intended Use
- IAS 37 (rev. 5/2020), Provisions, Contingent Liabilities and Contingent Assets – Cost of Fulfilling a Contract

With the exception of the amendments to IAS 1, which will apply from 2023, these new requirements will become mandatory from 2022. They will have little or no material effects on Munich Re.

Consolidation

Consolidated group

The consolidated financial statements include Munich Reinsurance Company and all the entities over which Munich Reinsurance Company directly or indirectly exercises control (subsidiaries).

Munich Reinsurance Company directly or indirectly holds all, or a clear majority of, the voting rights in most of the entities included in the consolidated group.

We include a small number of entities in the consolidated group on the basis that contractual rights are taken into consideration that result in determination of control over the relevant business activities. In assessing the need to consolidate shares in investment funds, we take particular account of the degree of variability in the remuneration of the fund manager, of dismissal rights, and of the role of the investors in committees and bodies of the investment fund. As a result, an assessment that we do exercise control sometimes occurs even though the shareholding is below 50%.

In assessing whether control exists for structured entities, we focus our analysis on the decisions still to be made within the corresponding unit and on the agency relationships between the parties. For structured entities used by us to issue catastrophe bonds, we focus above all on our relationship to the trustees and our possibilities to influence their decision-making. Generally, we do not control such structured entities, even if we hold their bonds.

A list of all our shareholdings can be found in the section List of shareholdings as at 31 December 2020 in accordance with Section 313(2) of the German Commercial Code (HGB).

Cash flows and net assets from obtaining and losing control of consolidated subsidiaries or other operations are shown in the tables:

Cash flows arising from obtaining control

€m	2020	Prev. year
Total consideration for obtaining control	–2	–5
Non-cash consideration for obtaining control	0	0
Cash consideration for obtaining control	**–2**	**–5**
Cash over which control was obtained	0	4
Total	**–2**	**–1**

Net assets acquired

€m	31.12.2020	Prev. year
Goodwill/gain from bargain purchase	2	1
Other intangible assets	1	0
Investments	1	1
Cash	0	4
Other assets	3	0
Technical provisions (net)	0	–1
Other liabilities	–4	0
Total	**2**	**5**

Cash flows arising from losing control

€m	2020	Prev. year
Total consideration for losing control	2	99
Non-cash consideration for losing control	0	0
Cash consideration for losing control	**2**	**99**
Cash over which control was lost	0	–157
Total	**2**	**–59**

Net assets disposed of

€m	31.12.2020	Prev. year
Goodwill	0	0
Other intangible assets	0	–5
Investments	–8	–415
Cash	0	–157
Other assets	–3	–208
Technical provisions (net)	5	557
Other liabilities	2	81
Total	**–5**	**–147**

The subsidiary, Closed Joint Stock Company ERGO Insurance Company, Minsk, was sold and deconsolidated in Q2 2020. This disposal had a negative impact of less than €1m on the consolidated result.

Business combinations occurring during the reporting period

On 30 January 2020, Munich Re acquired 100% of the voting shares in the wind park company FW Żary Sp. z o.o., Warsaw, via its subsidiary MR RENT-Investment GmbH, Munich. The company has concluded a general contractor agreement for the turnkey construction of a wind park in Poland, with completion scheduled for 2021.

Associates and joint ventures

Entities and special funds are considered associates if we are able to significantly influence their financial and operating policies. We regularly operate on this assumption if we hold between 20% and 50% of the voting power or similar rights, unless the financial and operating policies of the entity or special fund are largely pre-determined.

Entities and special funds are considered joint ventures if we are able to determine their relevant operations solely by unanimous agreement of all parties entitled to joint control, and we only have rights to their net assets.

In 2020, several transactions were completed for Munich Re to acquire further shares in Next Insurance Inc., Wilmington, via its subsidiary, ERGO Group AG, Düsseldorf. The latter now holds 36.44% of the shares.

On 18 June 2020, via its subsidiary, MR Gotham LP, Delaware, Munich Re completed the acquisition of around 20% of the voting shares in Astoria Power Partners Holding LLC, Delaware. The latter indirectly holds 100% of the shares of Astoria Energy I and 55% of the shares of Astoria Energy II. The two combined-cycle power stations in the New York City borough of Queens have a combined total power generation capacity of 1.2 gigawatts and are a cornerstone of reliable energy supply in Greater New York.

Joint operations

A joint operation exists if its relevant operations can only be determined by unanimous agreement of all parties entitled to joint control, and these parties – due to the legal form of the joint operation, contractual provisions or other circumstances – have rights to assets and obligations for the liabilities of the joint operation, instead of rights to net assets.

We recognise our share of assets, liabilities, income and expenses of joint operations in which we have joint control in the balance sheet in accordance with the relevant IFRSs.

Structured entities

Structured entities are entities that have been conceived in a way that voting or comparable rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant business activities are directed by means of contractual arrangements.

Munich Re has interests in both consolidated and unconsolidated structured entities.

Munich Re classifies **unconsolidated structured entities** as either investment funds or securitisation vehicles on the basis of the type of structured entity.

A distinction is made between **investment funds** in which Munich Re invests on its own behalf within the framework of its investment activities and investment funds in which Munich Re invests as part of its insurance-related investments. Investment funds are mainly financed by issuing redeemable shares or units. Some of the investment funds are managed by MEAG MUNICH ERGO AssetManagement GmbH, others by fund managers outside the Group. In the table below, we also report under investment funds all investments in infrastructure, forestry, private equity and other investments.

Munich Re invests in asset-backed securities that are issued by **securitisation vehicles** which are not set up by Munich Re. Furthermore, Munich Re uses securitisation vehicles to issue catastrophe bonds, and it also invests in third-party catastrophe bonds. Securitisation vehicles are self-financed by issuing securities.

In order to protect its own portfolio, Munich Re uses alternative risk transfer in addition to traditional retrocession. Under this process, underwriting risks are transferred to the capital markets with the assistance of securitisation vehicles.

Munich Re also invests in the area of catastrophe risks, for example in various securities whose repayment and interest is generally linked to the occurrence of natural catastrophes. The securities are issued by securitisation vehicles which as a matter of general policy are not set up by Munich Re.

For investment funds, including investments in infrastructure, forestry, private equity and other investments, as well as insurance-related investments, the carrying amount gives an indication of the **size of the structured entity**. For asset-backed securities and the securitisation of underwriting risks, the emission volume (nominal value) is used as an indicator for measuring the size of the structured entity. The size of the funds refers to both the issued volume of the securitisation vehicles set up by Munich Re and that of those securitisation vehicles in which Munich Re has invested.

With the exception of investment funds for investments in unit-linked life insurance, which are recognised as insurance-related investments, the **maximum exposure to loss** is the carrying amount of the respective items on the assets side, and zero for the items on the liabilities side. Therefore, for the items on the assets side, there is usually no difference between the carrying amount of interests in unconsolidated structured entities and the maximum exposure to loss.

Normally, the maximum exposure to loss in the case of investments for unit-linked life insurance contracts is also the carrying amount of the interests. However, this investment is held for the benefit of policyholders who bear the investment risk.

MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH also **manages fund assets** for private clients and institutional investors, for which it receives a management fee. The management fees are recognised as an expense in the consolidated income statement.

The maximum exposure to loss relates to the loss of future management fees. Fund management activities generated income of €46m (43m) in the financial year. The value of fund assets under management provides information about the size of the unconsolidated structured entities. As at 31 December 2020, the managed fund assets amounted to €4,612m (4,622m), and Munich Re itself also holds a small interest in these funds.

To sponsor unconsolidated structured entities Munich Re provides structuring and consultancy services for clients within the context of the foundation and structuring of third-party securitisation vehicles. As at 31 December 2020, Munich Re did not have any interests in these structured entities.

Unconsolidated structured entities

	Investment funds – Munich Re investments	Investment funds – Insurance-related investments	Securiti-sation vehicles – Debt securities	Securiti-sation vehicles – Underwriting risks	Total
€m	31.12.2020	31.12.2020	31.12.2020	31.12.2020	31.12.2020
Loans	155	0	0	0	155
Other securities					
Available for sale	4,685	0	3,659	306	8,650
At fair value through profit or loss	0	0	0	0	0
Deposits retained on assumed reinsurance	0	0	0	934	934
Insurance-related investments	0	7,620	0	0	7,620
Ceded share of technical provisions	0	0	0	109	109
Non-current assets held for sale	0	7	0	0	7
Total assets	**4,840**	**7,627**	**3,659**	**1,350**	**17,476**
Technical provisions	0	0	0	1	1
Other liabilities	0	0	0	1	1
Total equity and liabilities	**0**	**0**	**0**	**2**	**2**
Size of structured entity	4,840	7,627	75,710	8,114	96,291

Unconsolidated structured entities

	Investment funds – Munich Re investments	Investment funds – Insurance-related investments	Securiti-sation vehicles – Debt securities	Securiti-sation vehicles – Underwriting risks	Total
€m	Prev. year	Prev. year	Prev. year	Prev. year	Prev. year
Loans	201	0	0	0	201
Other securities					0
Available for sale	4,136	0	3,251	382	7,769
At fair value through profit or loss	0	0	0	0	0
Deposits retained on assumed reinsurance	0	0	0	869	869
Insurance-related investments	0	7,145	0	0	7,145
Ceded share of technical provisions	0	0	0	98	98
Non-current assets held for sale	1	10	0	0	11
Total assets	**4,338**	**7,155**	**3,251**	**1,349**	**16,094**
Technical provisions	0	0	0	0	0
Other liabilities	0	0	0	3	3
Total equity and liabilities	**0**	**0**	**0**	**3**	**3**
Size of structured entity	4,338	7,155	65,456	8,054	85,004

Assets

A Intangible assets

Goodwill resulting from the first-time consolidation of subsidiaries is tested for impairment at least annually. We additionally carry out ad-hoc impairment tests if there are indications of impairment.

For impairment testing, the goodwill is allocated to the cash-generating units that derive benefit from the synergies of the business combinations. At the same time, the unit to which the goodwill is allocated represents the lowest level at which goodwill is monitored for internal management purposes. Goodwill is allocated in reinsurance to divisions, and in primary insurance to the ERGO segment Property-casualty Germany, and to legal entities. We regard amounts of 10% or more of total Group goodwill as significant.

The **other intangible assets** mainly comprise acquired insurance portfolios and software inventories.

Acquired insurance portfolios are recognised at their present value on acquisition (PVFP – present value of future profits). This is determined as the present value of expected profits from the portfolio acquired, without consideration of new business and tax effects. The acquired insurance portfolios are amortised in accordance with the realisation of the profits from the insurance portfolios underlying the PVFP calculation. They are regularly tested for impairment using a liability adequacy test as per IFRS 4 (see Equity and liabilities C – Gross technical provisions). Write-downs are recognised under operating expenses.

Software assets are carried at cost and are amortised on a straight-line basis over a useful life of three to five years. The depreciations and amortisations are distributed in the consolidated income statement between investment expenses, expenses for claims and benefits, and operating expenses. If it is not possible to allocate impairments to the functional areas, they are shown under “other non-operating result”. If necessary in the case of the software assets, impairment losses are recognised or reversed up to a maximum of the amortised acquisition cost or production cost.

B Investments

Land and buildings shown under investments comprise property used by third parties and are carried at cost. Maintenance expenses are recognised as an expense. Structural measures equivalent to 5% or more of the historical cost of a building are generally assessed with regard to whether they have to be capitalised. Buildings are depreciated on a straight-line basis in accordance with the component approach, depending on the weighted useful life for their specific building class. The underlying useful lives mainly range between 40 and 59 years. If the recoverable amount of land and buildings falls below their carrying amount, the carrying amount is written down to the recoverable amount.

Investments in affiliated companies, associates and joint ventures that are not material for assessing the Group’s financial position are generally accounted for at fair value. Changes in the fair value are recognised in “other reserves” under unrealised gains and losses. For the consolidated financial statements, investments in associates and joint ventures are measured using the equity method, i.e. with our share of their equity. Our share in the earnings is included in the investment result. As a rule, the equity and annual result from the most recent individual or consolidated financial statements of the associate or joint venture are used. In the case of financial statements of important associates or joint ventures, appropriate adjustments are made to ensure they conform with Munich Re’s accounting policies and exceptional transactions are recognised in the same reporting period.

Loans are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are measured at amortised cost in accordance with the effective interest method.

Fixed-interest or non-fixed-interest securities available for sale that are not designated as at fair value through profit or loss or recognised under loans are accounted for at fair value, with resulting changes in value recognised in equity with no effect on profit or loss. Unrealised gains or losses are calculated taking into account interest accrued and, after deduction of deferred taxes and the amounts apportionable to policyholders by the life and health insurers on realisation (provision for deferred premium refunds), are recognised directly in equity under “other reserves”.

Securities at fair value through profit or loss comprise securities held for trading and securities classified as at fair value through profit or loss. Securities held for trading mainly include all derivative financial instruments with positive fair values which we have acquired to manage and hedge risks but which do not meet the requirements of IAS 39 for hedge accounting. The securities that are designated as at fair value through profit or loss include embedded derivatives that must be separated. In addition, loan portfolios are managed based on the fair value of the entire portfolio, which is why it was also designated as at fair value through profit or loss.

Deposits retained on assumed reinsurance are receivables from our cedants for cash deposits that have been retained under the terms of reinsurance agreements; they are accounted for at face value.

Other investments include deposits with banks and investments in renewable energies, physical gold and forestry. With the exception of forestry investments, these are measured at amortised cost. We apply the effective interest method for deposits with banks. Investments in renewable energies are amortised on a straight-line basis over a useful life of 20–30 years, but mostly over 20 years. If required, impairment losses or impairment losses reversed follow the annual impairment test. If the recoverable amount of physical gold is lower than the carrying amount, a write-down for impairment is carried out. If higher, the impairment is reversed, with impact on the income statement. The resultant carrying amount may not exceed the acquisition cost.

Forestry investments fall into the category of biological assets and include standing wood. These investments are measured at fair value less costs of disposal, with impact on profit or loss.

Repurchase agreements and securities lending

Under repurchase agreements we, as the lender, acquire securities against payment of an amount with the obligation to sell them back to the borrower at a later date. As the risks and rewards from the securities remain with the borrower, the amounts paid are not posted as such in our accounts but are shown as a receivable from the borrower under "other investments, deposits with banks". Interest income from these transactions is recognised in the investment result. Similarly, securities sold by us as the borrower are not derecognised, and the amount received from the lender is shown as a liability in our accounts.

Securities that we lend by way of securities lending continue to be recognised in our balance sheet, as the main risks and rewards remain with Munich Re; securities that we have borrowed are not recognised in the balance sheet. Fees from securities lending are recognised in the investment result.

Recognition of financial instruments

Financial assets are accounted for at the trade date.

Offsetting of financial instruments

We offset financial assets and financial liabilities if the requirements are met in accordance with IAS 32, Financial Instruments: Presentation, and if doing so is legally enforceable.

Determining fair values

IFRS 13, Fair Value Measurement, defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. All investments and other assets and liabilities that are recognised at fair value, and such investments and other items for which a fair value is disclosed solely in the Notes, are allocated to one of the fair value hierarchy levels of IFRS 13, which provides for three levels.

The allocation of an instrument to a level indicates the extent to which observable market inputs helped to measure the instrument. The fair value hierarchy categorises three levels of inputs: quoted prices in active markets (Level 1), inputs based on observable market prices (Level 2) and inputs that are not directly observable in active markets (Level 3). If market prices are available, these constitute the most objective yardstick for measurement at fair value and are to be used. If measurement is carried out using a model, any available inputs observable in the market are used first. If necessary, these inputs are supplemented with unobservable input factors and internal estimates.

Information on the valuation models and processes can be found in the Notes to the consolidated balance sheet – Assets (4) Hierarchy for the fair value measurement of assets. An internal process ensures that the measurement basis at every reporting date results in the correct allocation to the individual levels of the fair value hierarchy according to IFRS 13.

In the case of Level 1, valuation is based on quoted prices in active markets for identical financial assets which Munich Re can refer to at the valuation date. The financial instruments we have allocated to this level mainly comprise equities, equity funds, exchange-traded derivatives, and exchange-traded subordinated liabilities.

Assets allocated to Level 2 are valued using models based on observable market data. If the financial instrument concerned has a fixed contract period, the inputs used for valuation must be observable for the whole of this period. In addition, Level 2 includes financial assets for which valuation and the market data required for valuation are provided by price quoters, but for which it is not possible to completely determine to which extent the data used is observable in the market. The financial instruments we have allocated to this level mainly comprise bearer bonds and bond funds, borrowers' note loans, covered bonds, subordinated securities, specified credit structures and derivatives not traded on the stock market.

For assets allocated to Level 3, we use valuation techniques that are also based on unobservable inputs – which influences valuation both immaterially and materially. The inputs used reflect Munich Re's assumptions regarding the factors which market players would consider in their pricing. To this end, we use the best available market information, supplemented with internal company data. The assets allocated to this level of the fair value hierarchy largely comprise land and buildings and real estate funds. Funds that mainly invest in theoretically valued instruments, and investments in infrastructure and in private equity are also allocated to Level 3, along with investments in subsidiaries, associates and joint ventures measured at fair value, as well as insurance derivatives and derivative components of variable annuities.

In the case of loans, bank borrowing, liabilities from financial transactions, and bond and note liabilities not traded on an active market, we decide on a case-by-case basis to which level of the fair value hierarchy to allocate the respective fair values.

To the extent that a change in individual inputs significantly affects the fair value shown, we will disclose the change and the resulting impact. This is particularly applicable to instruments measured under Level 3, as their measurement is predominantly dependent on unobservable inputs.

Investment result

The investment result comprises regular income, income from reversals of impairments, gains and losses on the disposal of investments, other income, impairment losses on investments, management expenses, interest charges and other expenses. Regular income and expenses from investments not measured at fair value through profit or loss are calculated in accordance with the effective interest method, i.e. any premiums or discounts are spread over the period of maturity, with impact on profit or loss.

Impairment

At each balance sheet date, we assess whether there is any substantial objective evidence of impairment in a financial asset or group of financial assets. As the recognition of impairments – both on the merits and in terms of amount – is based on discretionary judgement and estimates, we have established a process that guarantees that at every reporting date all investments that might be subject to impairment are identified and tested for impairment. On the basis of these test results, a list of investments will be prepared for which an impairment must be recognised; this list will then be verified once again with the involvement of management.

IAS 39.59 contains a list providing objective evidence of impairment of financial assets. In addition, IAS 39.61 states that, for equity investments, a significant or prolonged decline in the fair value of the investment below its acquisition cost is objective evidence of impairment. These rules are given more concrete form by means of internal guidelines. For equities quoted on the stock exchange, we assume a significant decline in fair value if the market price at the review date is at least 20% below the average purchase price or has been lower than this amount for at least six months. In the case of fixed-interest securities and loans, the main basis for establishing impairment is an indication of substantial financial difficulty on the part of the issuer, the current market situation or media reports on the issuer.

We determine acquisition cost on the basis of the average purchase price. In the case of an impairment, a write-down is made to the fair value at the balance sheet date and recognised in profit or loss.

C Insurance-related investments

Investments for unit-linked life insurance contracts are measured at fair value. Unrealised gains or losses from changes in fair value are included in the insurance-related investment result. They are matched by corresponding changes in the technical provisions (see Equity and liabilities D – Gross technical provisions for unit-linked life insurance), which are included in the technical result.

Other insurance-related investments are not utilised for asset-liability management. These include insurance derivatives, derivative components of variable annuities, derivatives for hedging variable annuity contracts and, on a limited scale, loans. In the case of loans, contractual wording largely waives the right to reimbursement if and when an insurance event occurs. Similar agreements also exist for quasi-equity instruments. Insurance-linked derivatives include retrocessions in the form of derivatives, the derivative components of natural catastrophe bonds and from securitisations of mortality and morbidity risks, individually structured insurance-linked derivatives, and derivative components which are separated from their host insurance contract in accounting. Other insurance-related investments are predominantly measured at fair value through profit or loss. In addition, we designate contracts containing embedded derivatives that would generally have to be separated as measured at fair value through profit or loss in order to achieve an appropriate accounting statement. Insurance risks are defined as risks which – in a modified form – can also be covered by an insurance contract within the meaning of IFRS 4.

Result from insurance-related investments
The breakdown of the insurance-related investment result matches that of the investment result.

D Ceded share of technical provisions

The share of technical provisions for business ceded by us is determined from the respective technical provisions in accordance with the terms of the reinsurance agreements; see Equity and liabilities – C Gross technical provisions. Appropriate allowance is made for the credit risk.

E Receivables

Current tax receivables are accounted for in accordance with local tax regulations and other receivables at amortised cost. The impairment test of our receivables is performed in a two-stage process, firstly at the level of individual items, and then on the basis of groups of similar receivables. The impairment is recognised as an expense. If, in a subsequent period, the reasons for the impairment cease to apply, the impairment is reversed, with impact on the income statement. The resultant carrying amount may not exceed the amortised cost.

Current tax receivables comprise current taxes on income of the individual companies, based on their respective national taxation. Other tax receivables are shown under “other receivables”.

F Cash at banks, cheques and cash in hand

Cash and cash equivalents as well as other liquid assets are accounted for at face value.

G Deferred acquisition costs

Deferred acquisition costs comprise commissions and other variable costs directly connected with acquisition or renewal of insurance contracts. In life business and long-term health primary insurance, deferred acquisition costs are recognised and amortised over the period of cover in accordance with the anticipated recognition of income. In determining the amount of amortisation, we take into account an actuarial interest rate and changes resulting from the disposal or withdrawal of contracts from the portfolio. In property-casualty business, short-term health primary insurance and health reinsurance, the deferred acquisition costs are customarily amortised on a straight-line basis over the average term of the policies, from one to five years.

H Deferred tax assets

Deferred tax assets must be recognised in cases where asset items have to be valued lower, or liability items higher, in the consolidated balance sheet than in the tax accounts of the Group company concerned and these differences will be eliminated at a later date with a corresponding effect on taxable income (temporary differences). Also included are tax assets deriving from tax loss carry-forwards. Deferred tax assets are recognised to the extent that, on the basis of tax result planning, it is probable that they will be utilised. As a rule, a five-year forecast period is considered. We take into account the tax rates of the countries concerned and the consolidated company’s respective tax situation; in some cases, for purposes of simplification, we use uniform tax rates for individual circumstances or subsidiaries. Changes in tax rates and tax legislation that have already been adopted by the government at the balance sheet date are taken into account.

Deferred tax assets and liabilities are disclosed on a net basis, provided that they refer to the same taxable entity and tax office. The offsetting is made to the extent possible with respect to the underlying tax receivables and liabilities.

I Other assets

Other assets are generally recognised at amortised cost. Amortisations or depreciations mainly occur on a straight-line basis; the weighted average useful life is about 55 years. Where required, impairment losses either are recognised or are reversed up to a maximum of the amortised acquisition cost for the Group's owner-occupied property, plant and equipment. These impairment losses and impairment losses reversed are distributed between the functional areas.

Right-of-use assets under leases are comprised of lease liabilities, lease payments made at the time or before the asset is made available for use, initial direct costs, and restoration obligations. Right-of-use assets are amortised on a straight-line basis over the term of the lease.

J Non-current assets held for sale

Non-current assets held for sale are assets that can be sold in their current condition and whose sale is highly probable. The item may comprise individual assets or groups of assets. We account for non-current assets held for sale at fair value less sales cost, provided the fair value is lower than the carrying amount. They are no longer depreciated. Measurement of financial instruments remains unchanged; the only difference is how they are disclosed.

Equity and liabilities

A Equity

The line item **issued capital and capital reserve** contains the amounts that the equity holders of Munich Reinsurance Company have paid in on shares.

Under **retained earnings**, we show the profits which consolidated companies have earned and retained since becoming part of Munich Re. In addition, the adjustment amount resulting from changes in accounting policies for earlier periods not included in the consolidated financial statements is recognised in the opening balance of the retained earnings for the earliest prior period reported. Retained earnings also include the effects from remeasurement of defined benefit plans.

Own shares are deducted from equity. The purchase, sale or retirement of these shares are recognised in equity items, without impact on profit or loss.

Other reserves primarily contain unrealised gains and losses resulting from the recognition at fair value of other securities available for sale and from interests in unconsolidated affiliated companies, and in associates and joint ventures not accounted for using the equity method. In addition, they include unrealised gains and losses from the measurement of associates and joint ventures using the equity method. Differences resulting from the currency translation of foreign subsidiaries' figures, and remeasurement gains/losses from the hedging of cash flows are also shown under other reserves.

B Subordinated liabilities

Subordinated liabilities are liabilities which, in the event of liquidation or insolvency, are only satisfied after the claims of other creditors. They are measured at amortised cost in accordance with the effective interest method.

C Gross technical provisions

Technical provisions are shown as gross figures in the balance sheet, i.e. before deduction of the ceded share (see the explanatory remarks on Assets – D Ceded share of technical provisions). The ceded share is calculated and accounted for on the basis of the individual reinsurance agreements. Acquisition costs for insurance contracts are recognised and amortised over the terms of the contracts (see Assets – G Deferred acquisition costs).

The measurement of technical provisions is based on US GAAP FAS 60 (life primary insurance without performance-related participation in surplus, health primary insurance and the bulk of reinsurance treaties), FAS 97 (life primary insurance based on the universal life model, unit-linked life insurance and life reinsurance for assumed business based on FAS 97) and FAS 120 (life primary insurance with performance-related participation in surplus).[1] Credit insurance contracts are accounted for in accordance with the rules of IFRS 4.

Unearned premiums are accrued premiums already written for future risk periods. For primary insurance, these premiums are calculated separately for each insurance policy pro rata temporis; for reinsurance, nominal percentages are used in some cases where the data for a calculation pro rata temporis is not available. The posting of unearned premiums is restricted to short-term underwriting business; i.e. property-casualty business and parts of accident and health business. In the case of long-term business, a provision for future policy benefits is established.

The **provision for future policy benefits** in long-term underwriting business is posted for the actuarially calculated value of obligations arising from policyholders' guaranteed entitlements. As well as life insurance, this concerns portions of health and personal accident insurance, insofar as the business is conducted like life insurance. Measurement is usually based on the prospective method, by determining the difference between the present values of future benefits and future premiums. The actuarial assumptions used for their calculation include, in particular, assumptions relating to mortality, disability and morbidity, as well as assumptions regarding interest-rate development, lapses and costs. These are estimated on a realistic basis at the time the insurance contracts are concluded, and they include adequate provision for adverse deviation to make allowance for the risks of change, error and random fluctuations.

In reinsurance, measurement is carried out partly individually for each risk and partly collectively for reinsured portfolios, using biometric actuarial assumptions based on the tables of the national actuarial associations. These are adjusted for the respective reinsured portfolio, in line with the probabilities observed for the occurrence of an insured event. Discount rates are chosen that reflect the best estimate of expected investment income, less a safety margin. For the major part of the portfolio, these assumptions are fixed at the beginning of the contract and not changed over its duration.

1 At initial adoption on 1 January 2005.

In primary insurance, measurement is generally carried out individually for each risk. In German life primary insurance, biometric actuarial assumptions based on the tables of the German Association of Actuaries (Deutsche Aktuarvereinigung e.V.) are used. We also largely use the tables of the national actuarial associations for the rest of primary insurance business. The actuarial interest rate employed for discounting in life primary insurance is limited by the respective maximum actuarial interest rate prescribed by the supervisory authorities. In health primary insurance, discount rates are chosen that reflect the best estimate of expected investment income, less a safety margin.

The **provision for outstanding claims** is for payment obligations arising from insurance contracts in primary insurance and reinsurance where the size of the claim or the timing of the payment is still uncertain. Part of the provision is for known claims for which individually calculated provisions are posted. Another part is for expenses for claims whose occurrence is not yet known. There are also provisions for claims that are known, but whose extent has turned out to be greater than originally foreseen. All these provisions include expenses for internal and external loss adjustments. The provision for outstanding claims is based on estimates: the actual payments may be higher or lower. The amounts posted are the realistically estimated future amounts to be paid; they are calculated on the basis of past experience and assumptions about future developments (e.g. social, economic or technological factors). The claims payments also include estimated adjustments to accounts payable recognised in the previous year with a corresponding impact on the provision; these adjustments are the result of an altered assessment of payment behaviour. Future payment obligations are generally not discounted; exceptions are some provisions for occupational disability pensions and annuities in workers' compensation and other lines of property-casualty business. For determining the provision for outstanding claims, Munich Re uses a range of actuarial projection methods. Where ranges have been calculated, a realistic estimated value for the ultimate loss is determined within these. In applying the statistical methods, we regard large exposures separately.

Other technical provisions mainly include the provision for premium refunds in primary insurance and the provision for profit commission in reinsurance. The former is posted in life and health primary insurance for obligations involving policyholder bonuses and rebates that have not yet been irrevocably allocated to individual contracts at the end of the reporting period. These provisions are posted on the basis of national regulations almost entirely for primary insurance business in Germany; a retrospective approach is usually taken based on supervisory or individual contract regulations.

Besides this, there are provisions for deferred premium refunds, which are posted for the amounts apportionable to policyholders from the measurement differences between IFRS and local GAAP on the basis of the expected future participation quotas. For unrealised gains and losses on investments available for sale, which are recognised directly in equity (see Assets – B Investments – Fixed-interest or non-fixed-interest securities available for sale), the resultant provision for deferred premium refunds is also posted without impact on profit or loss; otherwise, changes in this provision are recognised in the income statement.

Liability adequacy test

All technical provisions are regularly subjected to a **liability adequacy test in accordance with IFRS 4**. If current experience shows that the provisions posted on the basis of the original assumptions – less the related deferred acquisition costs and the present value of the related premiums – are inadequate to cover the expected future benefits, we adjust the relevant technical provisions with recognition in profit or loss and disclose this under impairment losses in the Notes to the consolidated balance sheet (see (2) Other intangible assets, (13) Deferred acquisition costs, and (21) Provision for future policy benefits). The appropriateness of unearned premiums and of the provision for outstanding claims is assessed in relation to the realistically estimated future amount to be paid. The appropriateness of the provision for future policy benefits is assessed on the basis of realistic estimates of the actuarial assumptions, the proportional investment result and, for contracts with participation in surplus, future profit sharing.

D Gross technical provisions for unit-linked life insurance

This item encompasses the provision for future policy benefits in life primary insurance where policyholders bear the investment risk themselves (unit-linked life insurance). The value of the provision for future policy benefits essentially corresponds to the fair value of the relevant investments shown under Assets – C Insurance-related investments – Investments for policyholders under unit-linked life insurance contracts. Changes in this provision are fully recognised in the technical result. Insofar as these changes derive from unrealised gains and losses from alterations in the fair values of the related investments, they are matched by opposite changes of the same amount in the insurance-related investment result.

E Other provisions

This item includes **provisions for post-employment benefits and similar obligations**. Under defined contribution plans, the companies pay fixed contributions to an insurer or a pension fund. This fully covers the companies' obligations. Under defined benefit plans, the staff member is promised a particular level of retirement benefit either by the companies or by a pension fund. The companies' contributions needed to finance this are not fixed in advance. If pension obligations are covered by assets held by a legally separate entity (e.g. a fund or a contractual trust agreement in the form of a two-way trust) – assets that may only be used to cover the pension commitments given and are not accessible to creditors – the pension obligations are shown less the amount of these plan assets. If the fair value of the assets exceeds the related outsourced pension commitments, this reimbursement right is recognised under "Other receivables".

Pension obligations are recognised in accordance with IAS 19, Employee Benefits, using the projected unit credit method. The calculation includes not only the pension entitlements and current pensions known at the end of the reporting period, but also their expected future development. The assumptions for the future development are determined on the basis of the circumstances in the individual countries.

The discount rate applied to the pension obligations is based on the yields for long-term high-quality corporate bonds.

The item also includes **miscellaneous provisions**, which we establish in the amount of the probable requirement. Such amounts are not discounted if the interest-rate effect is insignificant.

F Liabilities

This item comprises bonds and notes issued, deposits retained on ceded business, current tax liabilities, and other liabilities. Financial liabilities are generally recognised at amortised cost. Derivative financial instruments are recognised at fair value. Details of how the fair value is determined are provided under Assets – B Investments – Determining fair values.

We offset financial assets and financial liabilities if the necessary requirements are met in accordance with IAS 32 and doing so is legally enforceable.

Current tax liabilities comprise current taxes on income of the individual companies, based on their respective national taxation. Other tax liabilities are shown under "other liabilities".

Lease liabilities are included in "other liabilities". The lease liability represents the present value of the payment obligations entered into. As a rule, lease payments are discounted at the incremental borrowing rate. Lease payments are discounted at the interest rate on which the lease is based, provided that this rate can be determined.

G Deferred tax liabilities

Deferred tax liabilities must be recognised if asset items have to be valued higher, or liabilities items lower, in the consolidated balance sheet than in the tax accounts of the reporting company, and these differences will be eliminated at a later date with a corresponding impact on taxable income (temporary differences); see Assets – H Deferred tax assets.

H Liabilities related to non-current assets held for sale

Liabilities to be transferred together with disposal groups are recognised in this item (see Assets – J Non-current assets held for sale).

Foreign currency translation

Munich Re's presentation currency is the euro (€). Our subsidiaries largely recognise differences resulting from the translation into their respective national currencies in profit or loss. The thus converted net assets of foreign subsidiaries whose national currency is not the euro are then translated using the year-end exchange rates, and results using quarterly average exchange rates. Any exchange differences arising in the process are recognised in equity.

The following table shows the exchange rates of the most important currencies for our business:

Currency translation rates

	Balance sheet		Income statement				Income statement			
One foreign currency unit is equivalent to €	31.12.2020	Prev. year	Q4 2020	Q3 2020	Q2 2020	Q1 2020	Q4 2019	Q3 2019	Q2 2019	Q1 2019
Australian dollar	0.6307	0.6262	0.6133	0.6118	0.5965	0.5959	0.6174	0.6167	0.6230	0.6273
Canadian dollar	0.6415	0.6870	0.6436	0.6420	0.6554	0.6750	0.6843	0.6810	0.6652	0.6621
Pound sterling	1.1172	1.1801	1.1076	1.1050	1.1272	1.1601	1.1623	1.1086	1.1440	1.1464
Polish zloty	0.2194	0.2352	0.2220	0.2251	0.2219	0.2313	0.2334	0.2315	0.2336	0.2325
Swiss franc	0.9246	0.9200	0.9279	0.9300	0.9424	0.9371	0.9126	0.9122	0.8874	0.8835
US dollar	0.8173	0.8909	0.8383	0.8553	0.9079	0.9073	0.9032	0.8993	0.8899	0.8806
Yen	0.0079	0.0082	0.0080	0.0081	0.0084	0.0083	0.0083	0.0084	0.0081	0.0080
Yuan renminbi	0.1250	0.1279	0.1266	0.1236	0.1281	0.1300	0.1282	0.1282	0.1304	0.1305

Segment reporting

In accordance with the management approach, the segmentation of our business operations is based on the way in which Munich Re is managed internally.

We have identified five segments to be reported:

- Life and health reinsurance (global life and health reinsurance business)
- Property-casualty reinsurance (global property-casualty reinsurance business)
- ERGO Life and Health Germany (German life and health primary insurance business, global travel insurance business and Digital Ventures business)
- ERGO Property-casualty Germany (German property-casualty insurance business, excluding Digital Ventures)
- ERGO International (ERGO's primary insurance business outside Germany)

At the beginning of Q1 2020, we reclassified Group-wide costs in the segment income statement in line with the consolidated income statement without impact on the result (see also Changes in accounting policies and other adjustments). The figures from the previous year were adjusted in line with IAS 1.41.

Certain primary insurers whose business requires special solution-finding competence are coupled to reinsurance as the risk carrier. We therefore transact their business from within reinsurance and consequently allocate them to the reinsurance segments.

The IFRS result contributions are the basis of planning and strategy in all segments, hence the IFRS segment result is the uniform assessment basis for internal control.

Income and expenses from intra-Group loans are shown unconsolidated under Other non-operating result for the segments concerned. These are otherwise shown after elimination of intra-Group transactions and shareholdings.

Segment assets[1]

	Reinsurance			
	Life and health		Property-casualty	
€m	31.12.2020	Prev. year	31.12.2020	Prev. year
A. Intangible assets	**280**	**319**	**2,099**	**2,316**
B. Investments				
I. Land and buildings, including buildings on third-party land	183	190	2,937	2,369
II. Investments in affiliated companies, associates and joint ventures	48	48	1,848	1,827
Thereof: Associates and joint ventures accounted for using the equity method	25	27	1,749	1,761
III. Loans	518	471	595	536
IV. Other securities				
1. Available for sale	22,806	22,661	50,496	50,533
2. At fair value through profit or loss	84	83	990	897
	22,890	22,744	51,486	51,431
V. Deposits retained on assumed reinsurance	4,835	4,791	3,111	3,082
VI. Other investments	416	722	2,381	2,858
	28,890	**28,967**	**62,358**	**62,103**
C. Insurance-related investments	**2,921**	**1,070**	**461**	**290**
D. Ceded share of technical provisions	**2,074**	**1,529**	**2,557**	**2,732**
E. Non-current assets held for sale	**1**	**10**	**17**	**157**
F. Other segment assets	**17,865**	**14,826**	**14,368**	**13,852**
Total segment assets	**52,031**	**46,721**	**81,860**	**81,449**

Segment equity and liabilities[1]

	Reinsurance			
	Life and health		Property-casualty	
€m	31.12.2020	Prev. year	31.12.2020	Prev. year
A. Subordinated liabilities	**1,202**	**956**	**3,832**	**2,871**
B. Gross technical provisions				
I. Unearned premiums	341	337	8,042	7,583
II. Provision for future policy benefits	12,464	12,607	0	26
III. Provision for outstanding claims	9,962	9,563	51,392	50,696
IV. Other technical provisions	391	340	230	274
	23,158	**22,848**	**59,664**	**58,579**
C. Gross technical provisions for unit-linked life insurance contracts	**0**	**0**	**0**	**0**
D. Other provisions	**190**	**233**	**690**	**805**
E. Liabilities related to non-current assets held for sale	**0**	**0**	**0**	**0**
F. Other segment liabilities	**14,381**	**10,522**	**9,020**	**8,049**
Total segment liabilities	**38,932**	**34,559**	**73,206**	**70,303**

1 You can download this information as an Excel file; please refer to the Financial Supplement under www.munichre.com/results-reports.

						ERGO		Total
		Life and Health Germany		Property-casualty Germany		International		
	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year
	173	**199**	**1,279**	**1,170**	**174**	**175**	**4,005**	**4,180**
	3,088	3,101	205	225	126	105	6,539	5,989
	408	378	94	113	974	481	3,372	2,847
	331	322	43	43	956	471	3,104	2,625
	49,002	49,713	1,365	1,433	464	354	51,944	52,507
	59,233	56,676	5,337	5,334	17,517	16,353	155,389	151,558
	1,422	1,336	51	23	379	441	2,927	2,781
	60,656	58,013	5,388	5,357	17,896	16,794	158,316	154,338
	21	43	12	22	0	0	7,980	7,938
	1,734	1,329	123	74	145	161	4,800	5,144
	114,909	**112,577**	**7,188**	**7,222**	**19,605**	**17,895**	**232,950**	**228,764**
	5,259	**5,216**	**0**	**0**	**2,391**	**2,587**	**11,033**	**9,163**
	12	**14**	**102**	**52**	**575**	**610**	**5,321**	**4,937**
	16	**0**	**23**	**0**	**159**	**234**	**215**	**400**
	7,957	**7,034**	**1,706**	**1,637**	**2,528**	**2,760**	**44,423**	**40,109**
	128,325	**125,039**	**10,298**	**10,082**	**25,432**	**24,262**	**297,946**	**287,553**

						ERGO		Total
		Life and Health Germany		Property-casualty Germany		International		
	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year
	0	**0**	**0**	**0**	**13**	**13**	**5,047**	**3,839**
	241	282	522	507	1,817	1,809	10,964	10,518
	90,474	89,698	387	409	9,603	9,562	112,928	112,302
	3,018	2,970	5,083	4,779	3,021	2,868	72,475	70,875
	20,889	19,574	125	99	843	724	22,478	21,011
	114,622	**112,525**	**6,117**	**5,793**	**15,285**	**14,962**	**218,846**	**214,706**
	5,554	**5,572**	**0**	**0**	**2,401**	**2,600**	**7,955**	**8,172**
	2,135	**1,992**	**1,146**	**1,061**	**1,277**	**1,200**	**5,438**	**5,291**
	0	**0**	**0**	**0**	**123**	**179**	**123**	**179**
	5,090	**4,282**	**540**	**631**	**1,513**	**1,306**	**30,544**	**24,790**
	127,400	**124,370**	**7,803**	**7,486**	**20,611**	**20,260**	**267,952**	**256,978**
					Equity		**29,994**	**30,576**
					Total equity and liabilities		**297,946**	**287,553**

Segment income statement[1, 2]

	Reinsurance			
	Life and health		Property-casualty	
€m	2020	Prev. year	2020	Prev. year
Gross premiums written	**12,707**	**11,716**	**24,615**	**22,091**
1. Net earned premiums	11,461	10,540	22,566	20,566
2. Income from technical interest	666	652	1,107	1,215
3. Net expenses for claims and benefits	–10,128	–8,580	–16,866	–13,714
4. Net operating expenses	–2,077	–2,246	–6,978	–6,910
5. Technical result (1–4)	**–78**	**365**	**–171**	**1,157**
6. Investment result	846	1,097	2,347	2,220
7. Insurance-related investment result	69	37	–45	65
8. Other operating result	53	2	–263	–463
9. Deduction of income from technical interest	–666	–652	–1,107	–1,215
10. Non-technical result (6–9)	**303**	**484**	**931**	**607**
11. Operating result	225	849	759	1,764
12. Other non-operating result	1	–10	–11	–47
13. Currency result	–46	47	6	149
14. Net finance costs	–40	–39	–128	–128
15. Taxes on income	–16	–142	–55	–176
16. Consolidated result	123	706	571	1,562

1 Previous year's figures adjusted owing to IAS 1 and IAS 8; see section Changes in accounting policies and other adjustments.
2 You can download this information as an Excel file; please refer to the Financial Supplement under www.munichre.com/results-reports.

In reinsurance, we incurred COVID-19-related losses particularly owing to the cancellation or postponement of major events and higher mortality. These losses totalled €3.4bn, of which €370m was attributable to life and health reinsurance and slightly over €3bn to property-casualty reinsurance. The lines of business most affected by the losses included cancellation-of-events, business interruption, third-party liability and credit.

By contrast, the effects of the pandemic on ERGO were immaterial in all segments. In the ERGO Property-casualty Germany segment, losses from business closure and event cancellation insurance were partly offset by lower losses in personal lines business, particularly in motor. The negative impact arising from COVID-19 totalled €64m after tax.

Other segment disclosures

	Reinsurance			
	Life and heath		Property-casualty	
€m	2020	Prev. year	2020	Prev. year
Interest income	868	899	970	1,137
Interest expenses	–22	–31	–43	–29
Depreciation and amortisation	–51	–58	–110	–118
Other operating income	295	259	387	303
Other operating expenses	–242	–257	–650	–766
Income from associates and joint ventures accounted for using the equity method	1	2	71	162

ERGO						Total	
Life and health Germany		Property-casualty Germany		International			
2020	Prev. year	2020	Prev. year	2020	Prev. year	2020	Prev. year
9,030	**9,238**	**3,677**	**3,500**	**4,861**	**4,912**	**54,890**	**51,457**
9,066	9,191	3,570	3,362	4,560	4,621	51,223	48,280
3,180	4,212	68	75	249	591	5,270	6,745
-10,511	-11,701	-2,254	-2,056	-3,318	-3,633	-43,077	-39,685
-1,382	-1,415	-1,089	-1,077	-1,289	-1,408	-12,815	-13,056
353	**287**	**294**	**303**	**202**	**171**	**600**	**2,283**
3,605	3,916	175	157	425	430	7,398	7,822
24	751	0	0	57	330	105	1,182
-354	-354	-147	-174	-137	-124	-848	-1,112
-3,180	-4,212	-68	-75	-249	-591	-5,270	-6,745
95	**102**	**-39**	**-91**	**96**	**45**	**1,386**	**1,147**
448	389	255	212	298	217	1,986	3,430
-48	-12	-28	-16	4	-6	-83	-91
-161	-41	1	-24	2	-59	-200	73
-22	-23	-6	-5	-27	-27	-223	-222
-86	-127	-64	-19	-48	-19	-269	-483
130	187	157	148	230	105	1,211	2,707

ERGO						Total	
Life and heath Germany		Property-casualty Germany		International			
2020	Prev. year	2020	Prev. year	2020	Prev. year	2020	Prev. year
2,702	2,902	89	99	315	349	4,944	5,387
-44	-60	-11	-17	-16	-23	-136	-161
-53	-52	-47	-45	-65	-70	-326	-344
239	335	141	141	106	140	1,168	1,178
-594	-688	-288	-315	-242	-264	-2,016	-2,290
26	28	0	0	58	15	155	207

Notes on determining the combined ratio[1]

	Reinsurance		ERGO			
	Property-casualty		Property-casualty Germany		International[2]	
€m	2020	Prev. year	2020	Prev. year	2020	Prev. year
Net earned premiums	22,566	20,566	3,570	3,362	3,289	3,309
Net expenses for claims and benefits	–16,866	–13,714	–2,254	–2,056	–2,105	–2,129
Net operating expenses	–6,978	–6,910	–1,089	–1,077	–988	–1,012
Loss-ratio calculation adjustments	7	13	46	30	42	23
Fire brigade tax and other expenses	21	17	18	20	34	28
Expenses for premium refunds	0	0	34	26	2	2
Other underwriting income	–11	–8	–26	–4	–13	–16
Change in other technical provisions and other underwriting expenses	–3	4	21	–11	19	8
Adjusted net expenses for claims and benefits	**–16,860**	**–13,701**	**–2,209**	**–2,025**	**–2,063**	**–2,107**
Loss ratio %	74.7	66.6	61.9	60.3	62.7	63.7
Combined ratio %	105.6	100.2	92.4	92.3	92.7	94.3

1 Information on the combined ratio is provided in the combined management report under Tools of corporate management and strategic financial objectives.
2 Property-casualty business and short-term health business (excluding health insurance conducted like life insurance).

Notes on determining the return on equity (RoE) for the year 2020

	Reinsurance		ERGO		Total	
€m	31.12.2020	31.12.2019	31.12.2020	31.12.2019	31.12.2020	31.12.2019
Segment assets	133,892	128,171	164,055	159,383	297,946	287,553
Segment liabilites	112,138	104,862	155,815	152,116	267,952	256,978
Adjustments used in the calculation of equity and in currency translation						
Unrealised gains and losses, currency translation reserve, remeasurement gains/losses from cash flow hedges	4,994	5,301	2,689	2,209	7,683	7,510
Adjustment item for material asset transfers between reinsurance and ERGO	410	732	–410	–732	0	0
Adjusted equity	**16,350**	**17,275**	**5,961**	**5,791**	**22,311**	**23,066**
	2020		2020		2020	
Average equity	16,812		5,876		22,688	
Consolidated result	694		517		1,211	
Return on equity (RoE) %	**4.1**		**8.8**		**5.3**	

Notes on determining the return on equity (RoE) for the year 2019

	Reinsurance		ERGO		Total	
€m	31.12.2019	31.12.2018	31.12.2019	31.12.2018	31.12.2019	31.12.2018
Segment assets	128,171	116,353	159,383	153,815	287,553	270,168
Segment liabilites	104,862	96,999	152,116	146,669	256,978	243,668
Adjustments used in the calculation of equity and in currency translation						
Unrealised gains and losses, currency translation reserve, remeasurement gains/losses from cash flow hedges	5,301	2,491	2,209	949	7,510	3,440
Adjustment item for material asset transfers between reinsurance and ERGO	732	–80	–732	80	0	0
Adjusted equity	**17,275**	**16,943**	**5,791**	**6,117**	**23,066**	**23,060**
	2019		2019		2019	
Average equity	17,109		5,954		23,063	
Consolidated result	2,268		440		2,707	
Return on equity (RoE) %	**13.25**		**7.39**		**11.74**	

Non-current assets by country[1]

€m	31.12.2020	Prev. year
Germany	7,265	7,322
USA	3,901	3,507
UK	546	554
France	427	429
Sweden	359	368
Spain	276	312
Poland	241	242
Malta	161	194
Italy	161	174
Austria	156	142
Belgium	131	131
Switzerland	92	93
Netherlands	90	94
Denmark	77	54
Portugal	71	71
Finland	63	64
Canada	53	56
Lithuania	52	53
Others	108	104
Total	**14,230**	**13,963**

1 The non-current assets mainly comprise intangible assets (especially goodwill) and our owner-occupied and investment property, as well as investments in renewable energy.

Investments in non-current assets per segment[1]

€m	2020	Prev. year
Life and health reinsurance	35	53
Property-casualty reinsurance	839	276
ERGO Life and Health Germany	67	332
ERGO Property-casualty Germany	166	193
ERGO International	89	73
Total	**1,196**	**926**

1 The non-current assets mainly comprise intangible assets (especially goodwill) and our owner-occupied and investment property, as well as investments in renewable energy.

Gross premiums written[1]

	Total	
€m	2020	Prev. year
Europe		
Germany	13,662	13,285
UK	5,692	5,193
Poland	1,557	1,593
Spain	1,626	1,473
Belgium	931	904
Others	5,611	5,189
	29,080	27,637
North America		
USA	13,104	12,274
Canada	2,336	2,209
	15,440	14,482
Asia and Australasia		
Australia	1,849	1,697
Japan	1,709	1,435
China	1,682	1,381
South Korea	295	300
Others	1,418	1,215
	6,952	6,029
Africa, Middle East		
South Africa	779	694
United Arab Emirates	399	379
Others	763	751
	1,940	1,824
Latin America	1,477	1,486
Total	**54,890**	**51,457**

1 The premiums are generally allocated according to the location of the risks insured.

Notes to the consolidated balance sheet – Assets

1 Goodwill

Changes in goodwill

€m	2020	Prev. year
Gross carrying amount at 31 Dec. previous year	4,498	4,460
Accumulated amortisation and impairment losses at 31 Dec. previous year	–1,557	–1,556
Carrying amount at 31 Dec. previous year	2,941	2,904
Currency translation differences	–159	37
Additions	2	1
Disposals	0	0
Reclassifications	0	0
Amortisation and impairment losses	–2	–1
Carrying amount at 31 Dec. financial year	**2,782**	**2,941**
Accumulated amortisation and impairment losses at 31 Dec. financial year	–1,559	–1,557
Gross carrying amount at 31 Dec. financial year	4,341	4,498

Impairment tests for cash-generating units to which a significant portion of the goodwill was allocated are based on the assumptions shown below.

Cash-generating units	Global Clients and North America Division property-casualty reinsurance	ERGO Property-casualty Germany segment
Allocated goodwill at 31 Dec. 2020 in €m	1,741	928
Basis for calculating the recoverable amount	Value in use	Value in use
Key assumptions regarding the planning calculation (at the time of planning)	In the detailed planning phase (five years) we expected markedly increasing premium income and an improvement in the combined ratio if major losses remained stable. Our general assumption was that there would be moderate upward movement on the equity markets and a stable interest-rate level.	For the detailed planning phase (five years), we expected a moderate rise in premium income with an improved combined ratio. Our general assumption was that there would be moderate upward movement on the equity markets and a stable interest-rate level.
Growth rates after the detailed planning phase	1.0%	0.5%
Discount rates	8.1%	8.7%

The calculation of these values in use is based on distributable target results derived from the current market environment and the latest corporate planning approved by management. Prepared in an interactive process involving the operational units, the responsible controlling units and the Board of Management, the corporate plans are reviewed and updated at least every quarter. The target results were determined based on the assumption that COVID-19 would not adversely affect the earnings prospects of our business models on a permanent basis. The aforementioned key assumptions regarding premium income development and combined ratios derive from the aggregation of the company plans of the individual companies of a cash-generating unit. The key assumptions regarding developments in the equity market and interest-rate level are defined on the basis of the current market environment.

After the detailed planning phase, we estimate the target results achievable long term on the basis of the last adjusted planning year and taking into account growth rates and RoI derived from macroeconomic forecasts.

Cost-of-equity rates derived using the Capital Asset Pricing Model (CAPM) were used as discount rates. As with the target results, we did not assume a permanent increase in cost-of-equity rates due to COVID-19 effects.

Calculations were made after consideration of normalised taxes. In the table, for disclosure purposes, a corresponding discount rate before tax is given in each case. Sensitivity analyses were performed for the discount rates, growth rates and distributable target results. No impairment was identified.

2 Other intangible assets

Development of other intangible assets

	Acquired insurance portfolios		Software			
			Internally developed		Other	
€m	2020	Prev. year	2020	Prev. year	2020	Prev. year
Gross carrying amount at 31 Dec. previous year	1,319	1,299	483	462	1,556	1,343
Accumulated amortisation and impairment losses at 31 Dec. previous year	–974	–926	–459	–418	–1,085	–1,026
Carrying amount at 31 Dec. previous year	346	373	24	44	471	317
Currency translation differences	–17	15	0	0	–12	2
Additions						
Business combinations	0	0	0	0	0	0
Other	0	0	11	25	226	237
Disposals						
Loss of control	0	0	0	0	0	0
Other	0	0	–2	–5	–2	–5
Reclassifications	0	0	0	–2	–1	–4
Impairment losses reversed	0	0	0	0	0	0
Amortisation and impairment losses						
Amortisation	–36	–43	–18	–39	–84	–74
Impairment losses	0	0	0	0	–7	–1
Carrying amount at 31 Dec. financial year	**293**	**346**	**14**	**24**	**590**	**471**
Accumulated amortisation and impairment losses at 31 Dec. financial year	–1,003	–974	–468	–459	–1,150	–1,085
Gross carrying amount at 31 Dec. financial year	1,296	1,319	482	483	1,740	1,556

Continued on next page

€m	Acquired brand names 2020	Acquired brand names Prev. year	Acquired distribution networks/client bases 2020	Acquired distribution networks/client bases Prev. year	Acquired licences/patents 2020	Acquired licences/patents Prev. year
Gross carrying amount at 31 Dec. previous year	214	223	727	661	338	330
Accumulated amortisation and impairment losses at 31 Dec. previous year	-185	-194	-610	-518	-106	-90
Carrying amount at 31 Dec. previous year	29	29	118	143	232	240
Currency translation differences	-2	1	-5	2	-8	5
Additions						
Business combinations	0	0	0	0	1	0
Other	0	1	0	0	0	0
Disposals						
Loss of control	0	0	0	0	0	0
Other	0	0	0	-3	0	0
Reclassifications	0	0	0	0	0	0
Impairment losses reversed	0	0	0	0	0	0
Amortisation and impairment losses						
Amortisation	-2	-2	-22	-23	-14	-14
Impairment losses	0	0	-20	0	-1	0
Carrying amount at 31 Dec. financial year	**25**	**29**	**71**	**118**	**210**	**232**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-182	-185	-619	-610	-119	-106
Gross carrying amount at 31 Dec. financial year	208	214	691	727	329	338

€m	Miscellaneous 2020	Miscellaneous Prev. year	Total 2020	Total Prev. year
Gross carrying amount at 31 Dec. previous year	36	34	4,674	4,352
Accumulated amortisation and impairment losses at 31 Dec. previous year	-15	-19	-3,434	-3,191
Carrying amount at 31 Dec. previous year	21	15	1,240	1,161
Currency translation differences	-1	0	-44	26
Additions				
Business combinations	0	0	1	0
Other	0	8	237	271
Disposals				
Loss of control	0	0	0	0
Other	0	0	-3	-14
Reclassifications	0	0	-1	-7
Impairment losses reversed	0	0	0	0
Amortisation and impairment losses				
Amortisation	-1	-2	-177	-196
Impairment losses	0	0	-29	-1
Carrying amount at 31 Dec. financial year	**19**	**21**	**1,223**	**1,240**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-16	-15	-3,558	-3,434
Gross carrying amount at 31 Dec. financial year	36	36	4,781	4,674

Intangible assets pledged as security and other restrictions on title amounted to €94m (107m). Commitments to acquire intangible assets totalled €46m (82m).

3 Land and buildings, including buildings on third-party land

Development of investments in land and buildings, including buildings on third-party land

€m	2020	Prev. year
Gross carrying amount at 31 Dec. previous year	7,302	7,107
Accumulated amortisation and impairment losses at 31 Dec. previous year	-1,313	-1,255
Carrying amount at 31 Dec. previous year	5,989	5,851
Currency translation differences	-60	11
Additions		
Subsequent acquisition costs	30	38
Business combinations	0	0
Other	801	307
Disposals		
Loss of control	0	0
Other	-33	-22
Impairment losses reversed	20	22
Amortisation and impairment losses		
Amortisation	-142	-130
Impairment losses	-36	-7
Reclassifications	-31	-81
Carrying amount at 31 Dec. financial year	**6,539**	**5,989**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-1,426	-1,313
Gross carrying amount at 31 Dec. financial year	7,965	7,302

The fair value of investment property at the end of the reporting period amounted to €12,131m (11,589m). The portfolio managed by the Group is measured by valuers within the Group, and the portfolio managed by third parties is valued by external valuers. Property is allocated to Level 3 of the fair value hierarchy (see Assets – B Investments – Determining fair values). Determining the sustainability of cash inflows and outflows, taking into account the market conditions at the property location, is material for measurement. The fair value is determined individually per item by discounting the future cash flow as at the measurement date. Depending on the type of property and its individual opportunity/risk profile, discount rates of 1.2% to 3.7% are used for residential buildings and 1.0% to 6.3% for office buildings and commercial property.

The main addition in the reporting year was the high-rise office building at 330 Madison Avenue in New York City. We recognised an impairment loss of €24m owing to the market upheavals triggered by the pandemic on the New York property market. The disposals relate in particular to residential and commercial property in Munich.

Reclassifications mainly related to property reclassified as held for sale, and formerly owner-occupied property now recognised as investment property.

Property pledged as security and other restrictions on title amounted to €1,164m (1,133m). Contractual commitments to acquire property totalled €35m (799m).

4 Hierarchy for the fair value measurement of assets

All assets recognised at fair value are allocated to one of the fair value hierarchy levels of IFRS 13, as are those assets which are not recognised at fair value in the balance sheet but for which a fair value has to be disclosed in the Notes. Information on the criteria for allocation to the individual levels of the fair value hierarchy can be found under Assets – B Investments – Determining fair values. Regularly, at each reporting date, we assess whether the allocation of our assets to the levels of the valuation hierarchy is still appropriate. If changes in the basis of valuation have occurred – for instance, if a market is no longer active or the valuation was performed using inputs requiring another allocation – we make the necessary adjustments.

The following table provides an overview of the models used to measure the fair values of our investments when market prices are not available.

Valuation techniques for assets

Bonds	Pricing method	Parameters	Pricing model
Interest-rate risks			
Loans against borrower's note/ registered bonds	Theoretical price	Sector-, rating- or issuer-specific yield curve	Present-value method
Cat bond (host)	Theoretical price	Interest-rate curve	Present-value method
Mortgage loans	Theoretical price	Sector-specific yield curve considering the profit margin included in the nominal interest rate	Present-value method

Derivatives	Pricing method	Parameters	Pricing model
Equity and index risks			
OTC stock options	Theoretical price	Listing of underlying shares Effective volatilities Money-market interest-rate curve Dividend yield	Black-Scholes (European) Cox, Ross and Rubinstein (American)
Equity forwards	Theoretical price	Listing of underlying shares Money-market interest-rate curve Dividend yield	Present-value method
Interest-rate risks			
Interest-rate swaps	Theoretical price	Swap and CSA curve[1]	Present-value method
Swaptions/interest-rate guarantee	Theoretical price	At-the-money volatility matrix and skew OIS/swap curve	Bachelier/ Normal Black
Interest-rate currency swaps	Theoretical price	Swap and CSA curve[1] Currency spot rates	Present-value method
Inflation swaps	Theoretical price	Zero-coupon inflation swap rates OIS curve	Present-value method
Bond forwards (forward transactions)	Theoretical price	Listing of underlying OIS curve	Present-value method
Currency risks			
Currency options	Theoretical price	Volatility skew Currency spot rates Money-market interest-rate curve	Garman-Kohlhagen (European)
Currency forwards	Theoretical price	Currency spot rates Currency forward rates/ticks Money-market interest-rate curve	Present-value method
Other transactions			
Insurance derivatives (natural and weather risks)	Theoretical price	Fair values of cat bonds Historical event data Interest-rate curve	Present-value method
Insurance derivatives (variable annuities)	Theoretical price	Biometric rates and lapse rates Volatilities Interest-rate curve Currency spot rates	Present-value method
Credit default swaps	Theoretical price	Credit spreads Recovery rates CSA curve[1]	ISDA CDS Standard Model
Total return swaps on commodities	Theoretical price	Listing of underlying index	Index ratio calculation
Commodity options	Theoretical price	Listing of underlying Effective volatilities Money-market interest-rate curve Cost of carry	Black-Scholes (European) Cox, Ross and Rubinstein (American)

Bonds with embedded derivatives	Pricing method	Parameters	Pricing model
Callable bonds	Theoretical price	Swap curve Issuer-specific spreads Volatility matrix	Hull-White model
CMS floaters	Theoretical price	Swap curve Issuer-specific spreads Volatility matrix	Replication model (Hagan)
CMS floaters with variable cap	Theoretical price	Swap curve Issuer-specific spreads Volatility matrix and skews	Replication model (Hagan)
Inverse CMS floaters	Theoretical price	Swap curve Issuer-specific spreads Volatility matrix and skews	Hull-White model
CMS steepeners	Theoretical price	Swap curve Issuer-specific spreads Volatility matrix and skews Correlation matrix	Replication model (Hagan) Stochastic volatility model
Convergence bonds	Theoretical price	Swap curve Issuer-specific spreads Volatility matrix Correlation matrix	Replication model (Hagan) Stochastic volatility model
Multi-tranches	Theoretical price	At-the-money volatility matrix and skew Swap curve Sector-, rating- or issuer-specific yield curve	Bachelier/ Normal Black, Present-value method Hull-White model
FIS loans against borrower's note	Theoretical price	At-the-money volatility matrix and skew Swap curve Sector-, rating- or issuer-specific yield curve	Bachelier/ Normal Black, Present-value method
Swaption notes	Theoretical price	At-the-money volatility matrix and skew Swap curve Money-market interest-rate curve Sector-, rating- or issuer-specific yield curve	Bachelier/ Normal Black, Present-value method

Funds	Pricing method	Parameters	Pricing model
Real estate funds	–	–	Net asset value
Alternative investment funds (e.g. private equity, infrastructure forestry)	–	–	Net asset value

Other	Pricing method	Parameters	Pricing model
Real estate	Theoretical market price	Interest-rate curve Market rents	Present-value method or valuation
Alternative direct investments (e.g. infrastructure, forestry)	Theoretical market price	Interest-rate curve (among others) Electricity price forecast and inflation forecast	Present-value method or valuation
Insurance contracts with non-significant risk transfer	Theoretical market price	Biometric rates and lapse rates Historical event data Interest-rate curve Currency spot rates	Present-value method

1 The OIS curve is used if the quotation currency is the CSA currency.

Insurance derivatives are mostly allocated to Level 3 of the fair value hierarchy, as observable market inputs are often not available. The decision is made on a case-by-case basis, taking into account the characteristics of the instrument concerned. If no observable market inputs are available for customised insurance derivatives, the present-value method on the basis of current interest-rate curves and historical event data is used.

The derivative components of catastrophe bonds are measured based on the values supplied by brokers for the underlying bonds, which is why the extent to which inputs used were not based on observable market data cannot readily be assessed.

The inputs requiring consideration in measuring variable annuities are derived either directly from market data (in particular volatilities, interest-rate curves and currency spot rates) or from actuarial data (especially biometric and lapse rates). The lapse rates used are modelled dynamically depending on the specific insurance product and current situation of the capital markets. The assumptions with regard to mortality are based on client-specific data or published mortality tables, which are adjusted with a view to the target markets and the actuaries' expectations. The dependency between different capital market inputs is modelled by correlation matrices. Where the valuation of these products is not based on observable inputs, which is usually the case, we allocate them to Level 3 of the fair value hierarchy.

The other investments allocated to Level 3 are mainly external fund units (in particular, private equity, real estate and funds that invest in a variety of assets that are subject to theoretical valuation). Since market quotes are not available for these on a regular basis, net asset values (NAVs) are provided by the asset managers. We thus do not perform our own valuations using inputs that are not based on observable market data. We regularly subject the valuations supplied to plausibility tests on the basis of comparable investments.

At 31 December 2020, around 10% (12%) of the investments measured at fair value were allocated to Level 1 of the fair value hierarchy, 85% (84%) to Level 2 and 5% (4%) to Level 3, as shown in the table below.

Among the associates and joint ventures accounted for using the equity method, there is only one company for which a quoted market price is available. This price amounts to €65m (86m) and is allocated to Level 1 of the fair value hierarchy.

The following table but one presents the reconciliation from the opening balances to the closing balances for investments allocated to Level 3 of the fair value hierarchy.

Gains (losses) recognised in the consolidated income statement are shown in the investment result or insurance-related investment result, while gains (losses) recognised in equity are shown in the statement of recognised income and expense under "Unrealised gains and losses on investments, Gains (losses) recognised in equity". Gains (losses) recognised in the consolidated income statement that are attributable to investments recognised at the end of the financial year are shown in the statement of recognised income and expense under "Unrealised gains and losses on investments, Recognised in the consolidated income statement".

Allocation of investments (including insurance-related investments) to levels of the fair value hierarchy

				31.12.2020
€m	Level 1	Level 2	Level 3	Total
Investments measured at fair value				
Investments in affiliated companies measured at fair value	0	0	212	212
Investments in associates and joint ventures measured at fair value	0	0	55	55
Other securities available for sale				
Fixed-interest	228	136,483	1,693	138,404
Non-fixed-interest	10,886	1,630	4,468	16,985
Other securities at fair value through profit or loss				
Held for trading, and hedging derivatives[1]	264	2,181	4	2,449
Designated as at fair value through profit or loss	175	322	0	497
Other investments	0	10	335	345
Insurance-related investments	5,390	4,097	1,547	11,033
Total	**16,943**	**144,723**	**8,315**	**169,980**
Investments not measured at fair value				
Loans	0	53,004	11,712	64,716
Total	**0**	**53,004**	**11,712**	**64,716**

→				Prev. year
€m	Level 1	Level 2	Level 3	Total
Investments measured at fair value				
Investments in affiliated companies measured at fair value	0	0	194	194
Investments in associates and joint ventures measured at fair value	0	0	29	29
Other securities available for sale				
Fixed-interest	60	130,617	1,443	132,120
Non-fixed-interest	13,577	1,747	4,114	19,438
Other securities at fair value through profit or loss				
Held for trading, and hedging derivatives[1]	324	1,939	0	2,263
Designated as at fair value through profit or loss	182	363	0	545
Other investments	0	10	302	313
Insurance-related investments	5,251	3,257	655	9,163
Total	**19,394**	**137,933**	**6,738**	**164,064**
Investments not measured at fair value				
Loans	0	54,369	10,275	64,644
Total	**0**	**54,369**	**10,275**	**64,644**

1 Including hedging derivatives of €19m (27m) accounted for under "Other assets".

Reconciliation for investments allocated to Level 3

	Investments in affiliated companies measured at fair value		Investments in associates and joint ventures measured at fair value	
€m	2020	Prev. year	2020	Prev. year
Carrying amount at 31 Dec. previous year	194	177	29	36
Gains and losses	–10	–16	1	8
Gains (losses) recognised in the consolidated income statement	–35	–15	0	4
Gains (losses) recognised in equity	24	0	1	4
Acquisitions	49	50	26	2
Disposals	–20	–13	–1	–9
Transfer to Level 3	1	4	0	0
Transfer out of Level 3	–1	–8	0	–8
Changes in the fair value of derivatives	0	0	0	0
Carrying amount at 31 Dec. financial year	**213**	**194**	**55**	**29**
Gains (losses) recognised in the consolidated income statement that are attributable to investments shown at the end of the financial year	–35	–14	0	0

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€m	Fixed-interest 2020	Fixed-interest Prev. year	Non-fixed-interest 2020	Non-fixed-interest Prev. year
	Other securities available for sale			
Carrying amount at 31 Dec. previous year	1,443	3,137	4,114	3,410
Gains and losses	98	225	–192	–18
Gains (losses) recognised in the consolidated income statement	93	83	–112	–29
Gains (losses) recognised in equity	5	142	–79	11
Acquisitions	266	1,192	1,115	1,200
Disposals	–114	–510	–571	–470
Transfer to Level 3	0	0	1	0
Transfer out of Level 3	0	–2,602	0	–8
Changes in the fair value of derivatives	0	0	0	0
Carrying amount at 31 Dec. financial year	**1,693**	**1,443**	**4,468**	**4,114**
Gains (losses) recognised in the consolidated income statement that are attributable to investments shown at the end of the financial year	93	84	–144	–31

€m	Designated as at fair value through profit or loss 2020	Designated as at fair value through profit or loss Prev. year	Held for trading, and hedging derivatives 2020	Held for trading, and hedging derivatives Prev. year	Other investments 2020	Other investments Prev. year
Carrying amount at 31 Dec. previous year	0	0	0	1	302	255
Gains and losses	0	0	0	0	–17	53
Gains (losses) recognised in the consolidated income statement	0	0	0	0	6	49
Gains (losses) recognised in equity	0	0	0	0	–23	4
Acquisitions	1	0	4	0	65	23
Disposals	0	–1	0	–1	–15	–29
Transfer to Level 3	0	0	0	0	0	0
Transfer out of Level 3	0	0	0	0	0	0
Changes in the fair value of derivatives	0	0	0	0	0	0
Carrying amount at 31 Dec. financial year	**0**	**0**	**4**	**0**	**335**	**302**
Gains (losses) recognised in the consolidated income statement that are attributable to investments shown at the end of the financial year	0	0	0	0	6	49

€m	Insurance-related investments 2020	Insurance-related investments Prev. year	Total 2020	Total Prev. year
Carrying amount at 31 Dec. previous year	455	233	6,537	7,249
Gains and losses	757	83	637	336
Gains (losses) recognised in the consolidated income statement	763	77	715	169
Gains (losses) recognised in equity	–6	6	–78	167
Acquisitions	–95	198	1,430	2,666
Disposals	–93	–65	–813	–1,097
Transfer to Level 3	0	0	2	4
Transfer out of Level 3	0	0	–1	–2,626
Changes in the fair value of derivatives	–43	6	–43	6
Carrying amount at 31 Dec. financial year	**981**	**455**	**7,749**	**6,537**
Gains (losses) recognised in the consolidated income statement that are attributable to investments shown at the end of the financial year	775	75	695	162

5 Investments in affiliated companies, associates and joint ventures

Reversed impairment losses with respect to associates and joint ventures amounted to €20m (46m). They are distributed between the following segments: €20m (45m) is apportionable to property-casualty reinsurance, and €0m (1m) to life and health reinsurance.

Impairment losses with respect to these companies amounted to €3m (1m), and are almost entirely attributable to property-casualty reinsurance.

In the financial year, shares of losses of associates and joint ventures amounting to €17m (0m) were not recognised in the balance sheet. Overall, losses not recognised in the balance sheet totalled €21m (4m).

Further information about affiliated companies, associates and joint ventures can be found under (48) Contingent liabilities, other financial commitments, (49) Significant restrictions, and in the List of shareholdings as at 31 December 2020 pursuant to Section 313(2) of the German Commercial Code (HGB).

Aggregated financial information on investments in associates and joint ventures accounted for using the equity method

€m	31.12.2020	Prev. year
Overall result for the year after tax from continued operations	77	110
Result after tax from discontinued operations	0	0
Income and expenses recognised directly in equity	12	12
Total recognised income and expenses	**89**	**122**

6 Loans

Breakdown of loans

	Carrying amounts	
€m	31.12.2020	Prev. year
Mortgage loans	7,342	6,792
Loans and advance payments on insurance policies	201	220
Other loans	44,401	45,495
Total	**51,944**	**52,507**

Other loans mainly comprise covered bonds and government bonds.

The fair value of the loans is based on recognised valuation techniques in line with the present value principle and taking observable and, in some cases, non-observable market inputs into account (see (4) Hierarchy for the fair value measurement of assets). The fair value totalled €64,722m (64,654m) at the reporting date.

Rating of Other loans on the basis of amortised cost

€m	31.12.2020	Prev. year
AAA	24,025	26,834
AA	14,100	13,259
A	2,149	1,902
BBB or lower	3,445	2,743
No rating	682	756
Total	**44,401**	**45,495**

The rating categories are based on those of the leading international rating agencies. Virtually no credit risk exists in respect of the mortgage loans or the loans and advance payments on insurance policies.

7 Other securities available for sale

Approximately 35% of the corporate debt securities are covered bonds or government-guaranteed bank issues. The remaining portfolio is composed of securities issued by companies outside the banking sector, with each individual risk making up less than 1%, bonds issued by banks and state central savings banks, and asset-backed securities/ mortgage-backed securities. The asset-backed securities/ mortgage-backed securities are largely rated A or better. Assets pledged as security and other restrictions on title amount to €8,760m (8,518m). Of the securities shown, €2,560m (2,389m) had been loaned to third parties. Loaned securities are not derecognised, as the main resultant risks and rewards remain with Munich Re. Of the €17,293m (14,370m) in unrealised gains and losses, €7.874m (6,223m) has been recognised in equity (other reserves), after deduction of provisions for deferred premium refunds, deferred taxes, non-controlling interests, and consolidation and currency translation effects.

Other securities available for sale also include participating interests pursuant to Section 271(1) of the German Commercial Code (HGB).

We altered our investment policy already in spring 2020 in response to the current coronavirus pandemic. The impact on fixed-interest securities was negligible. Instead, the low-interest-rate policy pursued by central banks resulted in higher valuation reserves and higher realised gains on the disposal of fixed-interest securities.

By contrast, in Q1 2020 we had to recognise impairment losses of €1,347m (68m) on our equity portfolio owing to the sharp decline in share prices. Here too, we altered our investment policy and reduced our equity portfolio or hedged with offsetting derivative positions.

Disposal proceeds

€m	2020	Prev. year
Fixed-interest securities	50,491	57,377
Non-fixed-interest securities		
Quoted	16,574	11,609
Unquoted	11,707	9,480
Total	**78,772**	**78,466**

Realised gains and losses

€m	2020	Prev. year
Gains on disposal	3,645	2,658
Fixed-interest securities	1,900	1,521
Non-fixed-interest securities	1,745	1,137
Losses on disposal	-940	-322
Fixed-interest securities	-272	-221
Non-fixed-interest securities	-668	-100
Total	**2,704**	**2,337**

Rating of fixed-interest securities according to fair values

€m	31.12.2020	Prev. year
AAA	41,152	39,637
AA	42,411	41,733
A	22,242	22,597
BBB	24,613	21,879
Lower	7,419	5,693
No rating	567	581
Total	**138,404**	**132,120**

The rating categories are based on those of the leading international rating agencies.

Breakdown of other securities available for sale

	Carrying amounts		Unrealised gains/losses		Amortised cost	
€m	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year
Fixed-interest securities						
Government bonds						
Germany	7,360	6,620	1,257	1,081	6,103	5,539
Rest of EU	28,424	30,013	4,566	3,469	23,858	26,544
USA	18,582	17,524	1,758	910	16,823	16,614
Other	25,529	21,366	1,741	1,170	23,787	20,196
Corporate debt securities	49,103	47,990	3,474	2,873	45,629	45,117
Other	9,407	8,607	1,630	1,236	7,777	7,371
	138,404	**132,120**	**14,426**	**10,738**	**123,978**	**121,381**
Non-fixed-interest securities						
Shares	10,485	13,287	2,121	2,837	8,363	10,450
Investment funds						
Equity funds	660	453	79	51	581	402
Bond funds	1,677	1,818	69	55	1,608	1,763
Real estate funds	334	328	54	62	280	266
Other	3,829	3,552	543	627	3,286	2,925
	16,985	**19,438**	**2,866**	**3,632**	**14,118**	**15,806**
Total	**155,389**	**151,558**	**17,293**	**14,370**	**138,096**	**137,187**

8 Other securities at fair value through profit or loss and insurance-related investments

Securities at fair value through profit or loss comprise securities of €2,430m (2,236m) held for trading as well as securities and loans of €497m (545m) designated as at fair value through profit or loss.

The securities held for trading are made up of fixed-interest securities totalling €15m (16m), non-fixed-interest securities totalling €76m (121m) and derivatives held for trading amounting to €2,339m (2,099m). The securities designated as at fair value through profit or loss comprise €310m (351m) assignable to fixed-interest securities and loans and €187m (194m) to non-fixed interest securities. Some €3m (43m) of the instruments at fair value through profit or loss is due within one year.

Rating of fixed-interest securities according to fair values

€m	31.12.2020	Prev. year
AAA	7	2
AA	39	49
A	67	49
BBB	42	29
Lower	17	2
No rating	154	235
Total	**326**	**367**

The rating categories are based on those of the leading international rating agencies.

The insurance-related investments include investments for unit-linked life insurance contracts of €7,544m (7,726m). Other insurance-related investments amounted to €3,489m (1,437m), of which €2,870m (1,236m) were accounted for at fair value through profit or loss and €225m (0m) were accounted for at fair value outside profit or loss.

Derivative financial instruments are used by Munich Re to manage and hedge against interest-rate, currency, and other market risks. This is done at the Group companies within the framework of the applicable supervisory regulations and additional internal company guidelines. Given the daily collateral-adjustment process, the risk of default is practically non-existent in the case of products traded on the stock exchange and for centrally cleared and secured over-the-counter (OTC) derivatives. Unsecured OTC products, on the other hand, harbour a theoretical risk in the amount of the replacement costs. Therefore, Munich Re selects only top-quality counterparties for such transactions, and exchanges collateral daily on the basis of current fair values.

As at 31 December 2020, Munich Re held collateral for derivatives in the form of cash collateral and securities with a rating of at least AA. The fair value of the securities amounts to €57m (46m), and the cash collateral approximately €749m (563m). The collateral received is subject to a title transfer collateral arrangement, but is not re-sold or pledged.

We modified our investment policy already in spring 2020 in response to the current coronavirus pandemic. We used derivative financial instruments to economically hedge our equity holdings. Due to the low-interest-rate policy pursued by central banks, we posted an increase in extraordinary gains on interest-rate derivatives.

Disclosure of derivatives by balance sheet item

€m			31.12.2020	Prev. year
Fair value	Qualifying for hedge accounting	Balance sheet item		
Positive	No	Investments, other securities, designated as at fair value through profit or loss	2,339	2,099
	No	Insurance-related investments	3,263	1,437
	Yes	Other assets	19	27
Negative	No Yes	Liabilities, other liabilities	–3,328	–1,726
Total			**2,294**	**1,837**

Although the derivatives used by Munich Re essentially serve to hedge against risks, only an amount of €19m (27m) meets the requirements of IAS 39 for hedge accounting.

IAS 39 distinguishes between fair value hedges and cash flow hedges.

Fair value hedges In the case of fair value hedges, the change in the fair value of the hedging instrument and the change in the fair value of the hedged instrument are generally recognised in profit or loss under the item "investment result". Munich Re regularly uses hedging relationships in the form of fair value hedges to selectively and efficiently mitigate interest-rate and other market risks. The main types of transaction employed for hedging are swaps and forwards. No fair value hedges existed at year-end.

Cash flow hedges play a role in countering fluctuations that may be caused, for example, by variable interest payments. Munich Re uses cash flow hedges chiefly to hedge against interest-rate risks, with interest-rate swaps being the main instruments employed. Changes in the fair value of the hedging instrument are recognised directly in equity for this purpose. Only when the actual cash inflow or outflow takes place – as a result of the hedged circumstance – is the relevant equity item reversed with recognition in profit or loss. The change in fair value assignable to the ineffective portion of the hedging was negligible at the reporting date. At the end of the reporting period, there was an equity item of €9m (17m) from cash flow hedges. The net fair value of the derivatives falling into this category amounted to €19m (27m) at the end of the reporting period.

Periods to maturity and amount of the hedged cash flows at the end of the reporting period

€m	< 1 year	1–2 years	2–3 years	3–4 years	4–5 years	> 5 years	31.12.2020	Prev. year
Notional amounts of hedged transactions	0	0	0	0	0	90	90	229

9 Deposits retained on assumed reinsurance

Deposits retained on assumed reinsurance serve as collateral for technical provisions covering business assumed from cedants in reinsurance. The amount of and changes in deposits retained on assumed reinsurance derive from the values for the changes in the related technical provisions. Deposits retained on assumed reinsurance business thus do not have a fixed maturity date, and their return is generally dependent on the run-off of the corresponding provisions.

10 Other investments

Other investments comprise deposits with banks totalling €3,441m (3,776m), investments in renewable energies amounting to €605m (646m), physical gold of €409m (409m), and forestry investments of €345m (313m). Deposits with banks include receivables of €0m (156m) from borrowers under repurchase agreements that have been booked by us as the lender.

Of the amounts held on deposit with banks, €3,429m (3,770m) is due within one year. With these deposits, the fair values largely correspond to the carrying amounts. Assets pledged as security and other restrictions on title amount to €30m (12m) for deposits with banks.

Development of investments in renewable energies

€m	2020	Prev. year
Gross carrying amount at 31 Dec. previous year	932	907
Accumulated amortisation and impairment losses at 31 Dec. previous year	-285	-245
Carrying amount at 31 Dec. previous year	646	662
Currency translation differences	-4	5
Additions		
Business combinations	0	0
Other	17	19
Disposals		
Loss of control	0	0
Other	0	-4
Impairment losses reversed	0	3
Depreciation and impairment losses		
Depreciation	-45	-40
Impairment losses	-9	0
Reclassification	0	0
Carrying amount at 31 Dec. financial year	**605**	**646**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-336	-285
Gross carrying amount at 31 Dec. financial year	941	932

The expenditures recognised in the carrying amount for assets in the course of construction totalled €14m (0m) for renewable energy investments.

The investments in renewable energies include items pledged as security, and other restrictions on title, amounting to €144m (157m).

Development of forestry investments

€m	2020	Prev. year
Carrying amount at 31 Dec. previous year	313	265
Currency translation differences	-24	5
Additions		
Business combinations	0	0
Acquisitions	65	22
Disposals		
Loss of control	0	0
Sales	-15	-17
Change in fair value less estimated costs to sell	6	49
Other changes	0	-11
Carrying amount at 31 Dec. financial year	**345**	**313**

11 Ceded share of technical provisions

Ceded share of technical provisions

€m	31.12.2020	Prev. year
Unearned premiums	392	443
Provision for future policy benefits	2,064	1,525
Provision for outstanding claims	2,797	2,902
Other technical provisions	67	67
Total	**5,321**	**4,937**

Details of the ceded share of technical provisions are shown under (20) Unearned premiums, (21) Provisions for future policy benefits, (22) Provisions for outstanding claims, (23) Other technical provisions, and in the Credit risks section of the risk report in the combined management report.

12 Other receivables

Breakdown of other receivables

€m	31.12.2020	Prev. year
Amounts receivable on primary insurance business	3,098	3,133
Accounts receivable on reinsurance business	8,558	8,690
Miscellaneous receivables	13,775	9,716
Total	**25,431**	**21,539**

Of the amounts receivable on primary insurance business, €946m (890m) is apportionable to receivables from insurance agents. The miscellaneous receivables include receivables of €9,623m (7,273m) resulting from contracts with non-significant risk transfer, which do not fall within the scope of IFRS 4. Financial assets of €762m (123m) resulting from these contracts are netted with the corresponding liabilities in the balance sheet. Moreover, derivatives with a positive market value of €154m (99m) are recognised on a net basis.

Assets pledged as security and other restrictions on title amount to €87m (82m).

The miscellaneous receivables contain cash collateral of €1,584m (679m), mainly for derivative transactions.

Given that the majority of other receivables, i.e. a total of €15,629m (13,686m), have a period to maturity of less than one year, the fair values largely correspond to the carrying amounts. The miscellaneous receivables include receivables of €9,623m (7,273m) resulting from contracts with non-significant risk transfer. These usually have longer periods to maturity which correspond to the cover and run-off periods of the underlying risks. Their fair value amounted to €10,405m (7,272m). We allocate these to Level 3 of the fair value hierarchy, as their measurement is primarily based on biometric and lapse rates and historical event data.

As at 31 December 2020, our accounts receivable on ceded reinsurance business were split between the following ratings (based on those of Standard & Poor's):

Rating of accounts receivable

€m	31.12.2020	Prev. year
AAA	34	34
AA	59	61
A	74	23
BBB and lower	6	9
No external rating	54	42

Of all our receivables on underwriting business at the end of the reporting period, €496m (460m) were outstanding for more than 90 days. The average default rate for the last three years was 1.8% (1.8%).

13 Deferred acquisition costs

Deferred acquisition costs

€m	31.12.2020	Prev. year
Gross	9,617	9,664
Ceded share	–498	–393
Net	**9,119**	**9,272**

Development of gross deferred acquisition costs

€m	31.12.2020	Prev. year
Status at 31 Dec. previous year	9,664	9,466
Currency translation differences	–279	132
Change in consolidated group/Other	–5	–11
New deferred acquisition costs	4,417	4,047
Changes		
Amortisation	–4,069	–3,811
Impairment losses	–111	–160
Status at 31 Dec. financial year	**9,617**	**9,664**

The amortisation includes accrued interest as well as impairment losses.

The impairment losses resulted from changes in the assumptions underlying the calculations which required an adjustment in the measurement. They were chiefly attributable to the ERGO Life and Health Germany segment, and were driven by changes in interest-rate assumptions.

14 Deferred tax

The deferred tax assets and liabilities recognised in the consolidated balance sheet concern the following balance sheet items:

Deferred tax

€m	31.12.2020 Assets	31.12.2020 Liabilities	Prev. year Assets	Prev. year Liabilities
Assets				
A. Intangible assets	137	113	140	138
B. Investments	2,475	4,291	2,111	3,459
C. Insurance-related investments	1	26	1	16
E. Receivables	154	194	37	261
I. Other assets	588	1,005	387	939
Total assets	**3,355**	**5,629**	**2,676**	**4,813**
Equity and liabilities				
C. Net technical provisions	3,425	5,050	3,169	4,761
E. Other provisions	1,346	271	1,309	270
F. Liabilities	342	94	462	12
Total equity and liabilities	**5,113**	**5,415**	**4,940**	**5,043**
Loss carry-forwards and tax credits	**561**	**0**	**648**	**0**
Total before netting	**9,029**	**11,044**	**8,264**	**9,856**
Netting amount	–8,751	–8,751	–7,948	–7,948
Total	**278**	**2,293**	**316**	**1,908**

No deferred taxes were posted for temporary differences of €136m (125m) in connection with investments in subsidiaries and associates, also referred to as outside basis differences. Likewise, no deferred tax assets were recognised on deductible temporary differences of €28m (214m) due to lack of recoverability.

The available tax loss carry-forwards and tax credits are broken down as follows.

Tax loss carry-forwards and tax credits

€m	31.12.2020 For which deferred tax assets are recognised	31.12.2020 For which deferred tax assets are not recognised	31.12.2020 Total	Prev. year For which deferred tax assets are recognised	Prev. year For which deferred tax assets are not recognised	Prev. year Total
Corporation tax loss carry-forwards						
Expiring in up to three years	63	19	82	11	19	30
Expiring in over three years and up to ten years	87	71	158	176	139	315
Expiring in over ten years	152	33	185	186	6	192
Not expiring	1,010	2,350	3,360	871	2,347	3,218
	1,312	**2,473**	**3,785**	**1,244**	**2,511**	**3,755**
Trade tax loss carry-forwards						
Not expiring	1,495	286	1,781	2,226	285	2,511
	1,495	**286**	**1,781**	**2,226**	**285**	**2,511**
Loss carry-forwards from capital losses						
Expiring in up to three years	0	0	0	0	0	0
Expiring in over three years and up to ten years	0	0	0	0	0	0
Expiring in over ten years	0	0	0	0	0	0
Not expiring	0	0	0	0	0	0
	0	**0**	**0**	**0**	**0**	**0**
Tax credits						
Expiring in up to three years	0	26	26	0	11	11
Expiring in over three years and up to ten years	0	81	81	0	102	102
Expiring in over ten years	0	0	0	0	0	0
Not expiring	0	0	0	0	0	0
	0	**107**	**107**	**0**	**113**	**113**

15 Other assets

These mainly comprise property, plant and equipment, with owner-occupied property totalling €2,045m (2,127m), and operating and office equipment amounting to €213m (234m). Advance payments on insurance amounted to €284m (293m), derivatives totalled €19m (27m), and miscellaneous deferred items came to €181m (158m).

Development of property, plant and equipment

€m	Owner-occupied property		Operating and office equipment		Total	
	2020	Prev. year	2020	Prev. year	2020	Prev. year
Gross carrying amount at 31 Dec. previous year	3,361	3,348	1,012	962	4,373	4,310
Accumulated amortisation and impairment losses at 31 Dec. previous year	-1,234	-1,170	-778	-743	-2,012	-1,913
Carrying amount at 31 Dec. previous year	2,127	2,178	234	219	2,361	2,397
Currency translation differences	-18	6	-6	2	-23	8
Additions						
Business combinations	0	0	0	0	0	0
Other	19	17	75	105	94	122
Disposals						
Loss of control	0	0	0	0	0	0
Other	-1	-18	-5	-9	-6	-27
Impairment losses reversed	8	6	0	0	8	6
Depreciation and impairment losses						
Depreciation	-67	-65	-81	-82	-148	-147
Impairment losses	-3	-1	0	0	-3	-1
Reclassification	-22	5	-3	0	-25	4
Carrying amount at 31 Dec. financial year	**2,045**	**2,127**	**213**	**234**	**2,258**	**2,361**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-1,282	-1,234	-778	-778	-2,060	-2,012
Gross carrying amount at 31 Dec. financial year	3,328	3,361	991	1,012	4,318	4,373

The fair value of the land and buildings amounts to €3,505m (3,495m). This is allocated to Level 3 of the fair value hierarchy (see Assets – B Investments – Determining fair values). The methodology for determining the fair values is described in (3) Land and buildings, including buildings on third-party land.

The expenditures recognised in the carrying amount for assets in the course of construction totalled €19m (12m) for property and €12m (14m) for operating and office equipment. Commitments to acquire property totalled €3m (4m) and commitments to acquire operating and office equipment €9m (14m).

As at 31 December 2020, rights of use from leases amount to €395m (375m). These mainly comprise rights to use land and buildings of €373m (352m). Additions to rights of use in the financial year came to €136m (116m). The depreciation expense came to €88m (82m) in the financial year.

16 Non-current assets held for sale

Four investment properties of ERGO Versicherung Aktiengesellschaft, Düsseldorf, and one investment property of ERGO Lebensversicherung Aktiengesellschaft, Hamburg, were classified as held for sale at the end of the reporting period. No value adjustments were required as a result of the classification. The properties are expected to be sold in the first half of 2021.

An investment property of Munich Reinsurance Company, Munich, classified as held for sale since Q2 2020, was sold in early January 2021. Another investment property of Munich Reinsurance Company, Munich, initially classified as held for sale in Q4 2020, was sold as at the end of the reporting period.

The subsidiary, Closed Joint Stock Company ERGO Insurance Company, Minsk, was sold in Q2 2020. Further information on gains and losses from losing control can be found in the sections Consolidation and Consolidated group.

Since 30 June 2020, the subsidiary ERGO ASIGURARI DE VIATA S.A., Bucharest, has no longer been classified as held for sale. The subsidiaries were reclassified because the requisite conditions were no longer met, which did not result in any material value adjustments.

The shareholding in HDFC ERGO Health Insurance Limited, Hyderabad, classified as held for sale using the equity method, was merged with HDFC ERGO General Insurance Company Ltd., Mumbai, in Q4 2020.

The Cannock Chase Group, a group of seven Dutch subsidiaries belonging to DAS Legal Finance B.V., Amsterdam, was still classified as held for sale as at the end of the reporting period. The sale of the group is expected to occur in the first half of 2021.

In addition, the two eastern European insurance companies ERGO pojist’ovna, a.s., Prague, and ERGO ASIGURARI S.A., Bucharest, were still classified as held for sale as at 31 December 2020. The transactions are subject to the approval of the supervisory authorities. The sales are expected to occur in the course of 2021.

The other reserves of Group equity include an amount of €4.0m for disposal groups mainly attributable to unrealised gains on fixed-interest securities, and €0.9m in unrealised gains on the currency translation reserve.

In our segment reporting, we disclose how the non-current assets held for sale are allocated between the segments. Transactions between the disposal group and the Group’s continuing operations continued to be fully eliminated. The assets and liabilities of the disposal group and non-current assets held for sale are shown in the following table:

Non-current assets and disposal groups held for sale

€m	31.12.2020	Prev. year
Assets		
Land and buildings, including buildings on third-party land	56	77
Other securities available for sale	87	108
Other investments	0	8
Other assets of the disposal group	72	207
Total assets	**215**	**400**
Liabilities		
Gross technical provisions	105	159
Other liabilities of the disposal group	18	20
Total liabilities	**123**	**179**

All of the Other securities available for sale shown in the table were allocated to Level 2 of the fair value hierarchy.

Notes to the consolidated balance sheet – Equity and liabilities

17 Equity

The total share capital of €587,725,396.48 at 31 December 2020 was divided into 140,098,931 no-par-value registered shares, each fully paid up and carrying one vote. The number of shares in circulation was as follows:

Development of shares in circulation

Number of shares	2020	Prev. year
Status at 31 Dec. previous year	141,460,598	145,797,378
Reductions		
Acquisition of shares for retirement (share buy-back programme)	-1,361,667	-4,336,780
Status at 31 Dec. financial year	**140,098,931**	**141,460,598**

On 31 December 2020, no Munich Reinsurance Company shares were held by Group companies.

In the financial year, Munich Re bought back 1,361,667 shares as part of the 2019/2020 share buy-back programme that ended on 9 March 2020.

The 2020/2021 programme approved by the Munich Reinsurance Company Board of Management on 26 February 2020, which provided for the acquisition of shares up to a value of €1bn before the 2021 Annual General Meeting, was initially put on hold until further notice. On 20 July 2020, Munich Re decided that the 2020/2021 share buy-back programme would definitely not be implemented owing to COVID-19.

A total of €1,373m was distributed to Munich Reinsurance Company's equity holders for the financial year 2019 in the form of a dividend of €9.80 per dividend-bearing share.

Composition of the authorised capital

€m	31.12.2020
Authorised Capital 2017 (until 25 April 2022)	280
Total	**280**

Composition of contingent capital

€m	31.12.2020
Contingent Capital 2020 (until 28 April 2025)	117
Total	**117**

Tax effects in the income and expenses recognised directly in equity

	2020			Prev. year		
€m	Before tax	Tax	After tax	Before tax	Tax	After tax
Currency translation	–1,392	0	–1,392	422	0	422
Unrealised gains and losses on investments	2,261	-607	1,654	4,686	–1,025	3,661
Change resulting from equity method measurement	-91	0	-91	–16	0	–15
Change resulting from cash flow hedges	–2	0	–2	2	–1	1
Remeasurements of defined benefit plans	-289	85	-204	-592	181	-411
Other changes	–1	0	–1	4	0	4
Income and expenses recognised directly in equity	**485**	**-522**	**-36**	**4,506**	**-845**	**3,661**

The taxes of –€522m (–845m) recognised directly in equity comprise an amount of –€484m (–854m) for deferred tax assets, and current taxes on unrealised gains and losses of –€38m (9m) on investments.

Information on capital management is provided in the combined management report under Financial position – Capital position.

18 Hierarchy for the fair value measurement of liabilities

All financial liabilities that are recognised at fair value, and such financial instruments that are not recognised at fair value but for which a fair value is disclosed in the Notes, are allocated to one of the fair value hierarchy levels of IFRS 13.

At each reporting date, we assess whether the allocation of these liabilities to the levels of the fair value hierarchy is still appropriate. If changes in the basis of valuation have occurred – for instance, if a market is no longer active or the valuation was performed using inputs requiring another allocation – we make the necessary adjustments.

For information on the valuation models used for measuring derivatives, please see the table and explanations under (4) Hierarchy for the fair value measurement of assets. The measurement of subordinated bonds for which no market prices are available is conducted using the present-value method and taking observable market inputs into account. For the bonds we have issued, we use the market prices provided by price quoters for the corresponding assets. The fair values of our amounts due to banks are determined using the present-value method, in part exclusively using observable market inputs, and partly also taking into account non-observable inputs.

The following table shows the allocation of the financial liabilities to levels of the fair value hierarchy.

Allocation of financial liabilities to levels of the fair value hierarchy

				31.12.2020
€m	Level 1	Level 2	Level 3	Total
Liabilities measured at fair value				
Other liabilities				
Derivatives	22	1,676	1,630	3,328
Total	**22**	**1,676**	**1,630**	**3,328**
Liabilities not measured at fair value				
Subordinated liabilities	5,448	57	2	5,507
Bonds and notes issued	374	0	0	374
Amounts due to banks	0	331	697	1,028
Other liabilities from financial transactions	3	2,771	16	2,790
Total	**5,826**	**3,159**	**714**	**9,699**

→				Prev. year
€m	Level 1	Level 2	Level 3	Total
Liabilities measured at fair value				
Other liabilities				
Derivatives	55	939	731	1,726
Total	**55**	**939**	**731**	**1,726**
Liabilities not measured at fair value				
Subordinated liabilities	4,288	59	2	4,348
Bonds and notes issued	384	0	0	384
Amounts due to banks	0	265	302	567
Other liabilities from financial transactions	0	1,814	16	1,830
Total	**4,671**	**2,138**	**320**	**7,129**

Only derivatives with a negative fair value are currently recognised at fair value. Of these, we mainly allocate the insurance derivatives to Level 3 of the fair value hierarchy, depending on the observation of specific market inputs.

Considering the sensitivity of the applied non-observable inputs, we refer to the remarks found in (4) Hierarchy for the fair value measurement of assets.

The following table presents the reconciliation from the opening balances to the closing balances for these insurance-linked derivatives:

Reconciliation for liabilities allocated to Level 3

	Other liabilities at fair value through profit or loss	
€m	31.12.2020	Prev. year
Carrying amount at 31 Dec. previous year	731	652
Gains and losses	-286	144
Gains (losses) recognised in the income statement	-291	164
Gains (losses) recognised in equity	5	-20
Acquisitions	859	284
Disposals	-203	-66
Transfer to Level 3	0	0
Transfer out of Level 3	0	0
Change in the fair value of derivatives	-43	6
Carrying amount at 31 Dec. financial year	**1,630**	**731**
Gains (losses) recognised in the income statement that are attributable to liabilities shown at the end of the financial year	-262	164

Gains (losses) recognised in the consolidated income statement are shown in the insurance-related investment result, while gains (losses) recognised in equity are shown in the statement of recognised income and expense in the item Unrealised gains and losses on investments, Gains (losses) recognised in equity. Gains (losses) recognised in the consolidated income statement that are attributable to liabilities recognised at the end of the financial year are shown in the statement of recognised income and expense under Unrealised gains and losses on investments, Recognised in the consolidated income statement.

19 Subordinated liabilities

In the financial year, Munich Reinsurance Company issued its first subordinated green bond, with the volume issued amounting to €1,250m.

In the case of Munich Reinsurance Company bonds, annual outflows of liquidity amounting to the respective interest payments occur until the first possible call dates. In the financial year, these amounted to €190m (171m). Thereafter, the liquidity outflows will vary, depending on the respective interest-rate level. For the registered bonds of ERGO Versicherung Aktiengesellschaft, and for the HSB Group bonds, the annual outflow is variable, depending on the respective interest-rate levels.

Possible bond maturities are determined by the terms of the bond.

The fair value of the subordinated liabilities at the end of the reporting period amounted to €5,507m (4,348m). For the Munich Reinsurance Company bonds, we take the stock market prices as fair values. For the other subordinated liabilities, we determine the fair values using net present-value methods with observable market inputs.

Breakdown of subordinated liabilities

€m	A.M. Best	Fitch	Moody's	S&P	31.12.2020	Prev. year
Munich Reinsurance Company, Munich, 1.25% until 2031, thereafter floating, €1,250m, Bonds 2020/2041	–	A	–	A	1,237	0
Munich Reinsurance Company, Munich, 3.25% until 2029, thereafter floating, €1,250m, Bonds 2018/2049	–	A	A2 (hyb)	–	1,262	1,261
Munich Reinsurance Company, Munich, 6.25% until 2022, thereafter floating, €900m, Bonds 2012/2042	a+	A	–	A	932	932
Munich Reinsurance Company, Munich, 6.625% until 2022, thereafter floating, £450m, Bonds 2012/2042	a+	A	–	A	522	552
Munich Reinsurance Company, Munich, 6.00% until 2021, thereafter floating, €1,000m, Bonds 2011/2041	a+	A	–	A	1,035	1,034
ERGO Versicherung Aktiengesellschaft, Vienna, secondary market yield on federal government bonds (Austria) +70 BP, €6m, Registered bonds 2001/perpetual	–	–	–	–	6	6
ERGO Versicherung Aktiengesellschaft, Vienna, secondary market yield on federal government bonds (Austria) +70 BP, €7m, Registered bonds 1998/perpetual	–	–	–	–	7	7
HSB Group Inc., Delaware, LIBOR +91 BP, US$ 67m, Bonds 1997/2027	–	–	–	–	46	48
Total					**5,047**	**3,839**

20 Unearned premiums

Unearned premiums

€m	31.12.2020	Prev. year
Gross	10,964	10,518
Ceded share	-392	-443
Net	**10,571**	**10,075**

Development of gross unearned premiums

€m	31.12.2020	Prev. year
Status at 31 Dec. previous year	10,518	9,790
Currency translation effects	-655	195
Changes in consolidated group/Other	-1	-51
Gross premiums written	54,890	51,457
Earned premiums	-53,788	-50,873
Status at 31 Dec. financial year	**10,964**	**10,518**

The increase in gross unearned premiums to €10,964m (10,518m) is attributable to the increase in premiums written to €54.890m (51,457m).

21 Provision for future policy benefits

Provision for future policy benefits

€m	31.12.2020	Prev. year
Gross	112,928	112,302
Ceded share	–2,064	–1,525
Net	**110,864**	**110,777**

Gross provision for future policy benefits according to type of insurance cover

€m	31.12.2020	Prev. year
Life and health	**112,329**	**111,650**
Reinsurance	12,464	12,607
ERGO	99,866	99,042
Term life insurance	2,257	3,153
Other life insurance	21,247	22,810
Annuity insurance	36,658	34,826
Disability insurance	1,330	1,300
Contracts with combination of more than one risk	7	0
Health	38,366	36,954
Property-casualty	**599**	**652**
Reinsurance	0	26
ERGO	599	627
Total	**112,928**	**112,302**

The provision for future policy benefits in life reinsurance largely involves contracts where the mortality or morbidity risk predominates. In reinsurance, annuity contracts have a significantly lower weight than in primary insurance.

Essentially the same actuarial assumptions have been used as in the previous year for measuring the provisions for future policy benefits for business in force.

In the ERGO Life and Health Germany segment, there was an adjustment in the financial year to the assumptions regarding future lapses and long-term interest-rate levels that are geared to the long-term regular return on investments. The provision for future policy benefits increased as a result of these adjustments. As we expect only a temporary and limited increase in mortality, COVID-19 will not have a significant impact on the provision for future policy benefits.

Further information on the underwriting risks can be found in the risk report in the combined management report, in the section entitled Significant risks.

Development of gross provision for future policy benefits

€m	2020	Prev. year
Status at 31 Dec. previous year	112,302	111,147
Currency translation differences	-535	341
Changes in consolidated group/Other	747	2,825
Changes		
Scheduled	426	–2,008
Unscheduled	–12	-3
Status at 31 Dec. financial year	**112,928**	**112,302**

The change shown under Changes in consolidated group/Other contains €246m (280m) in savings premiums for capitalisation products and €658m (644m) for reclassifications from the provision for premium refunds. It also includes the provision for future policy benefits of the disposal group amounting to –€29m (–17m).

Scheduled changes in the provision for future policy benefits contain the changes deriving from prospective calculation as a result of premium payments, claims and the unwinding of discount in the 2020 financial year.

22 Provision for outstanding claims

Provision for outstanding claims

€m	31.12.2020	Prev. year
Gross	72,475	70,875
Ceded share	–2,797	–2,902
Net	**69,678**	**67,973**

Gross provision by type

€m	31.12.2020	Prev. year
Annuity claims provision	8,107	7,914
Case reserve	25,938	26,102
IBNR reserve	38,431	36,859
Total	**72,475**	**70,875**

The annuity claims provision involves periodic payments for occupational and other disability cases and is usually due long term. A major part of this provision is established in the life and health reinsurance and ERGO Life and Health Germany segments for future annuity payments; a small part refers to provisions for annuities in personal accident, liability and workers' compensation insurance. The biometric actuarial assumptions are selected using appropriate actuarial principles.

Provisions for annuity claims are calculated as the present value of the expected future payments. The discount rates used are presented under (39) Disclosures on risks from life and health insurance business and (40) Disclosures on risks from property-casualty insurance business.

The case reserve reflects the amount which is expected to be needed to settle claims which are known and have already been reported at the balance sheet date. The major part of this provision is measured at face value. The IBNR reserve is calculated using actuarial methods on the basis of historical claims development data and taking into account foreseeable future trends.

Expected payments from the provisions for outstanding claims (property-casualty only)

	Reinsurance		ERGO	
%	31.12.2020	Prev. year	31.12.2020	Prev. year
Up to one year	34.1	34.9	30.7	30.7
Over one year and up to five years	45.8	46.0	37.7	37.5
Over five years and up to ten years	12.7	11.9	15.4	15.7
Over ten years and up to fifteen years	3.4	3.3	5.9	5.7
Over fifteen years	4.0	3.9	10.3	10.4

The expected timing of payments from the provisions for outstanding claims may involve considerable uncertainty.

Development of the claims reserve in the property-casualty segment[1]

	2020			Prev. year		
€m	Gross	Ceded share	Net	Gross	Ceded share	Net
Balance at 31 Dec. previous year	57,809	-2,700	55,109	53,937	-2,776	51,161
Currency translation differences	-3,014	187	-2,827	1,045	-67	979
Changes in consolidated group/Other	-4	0	-4	-228	76	-152
Claims expenses						
For the year under review	22,561	-768	21,794	19,530	-718	18,812
For previous years	-1,361	34	-1,327	-1,780	144	-1,636
Total claims expenses	21,200	-733	20,467	17,750	-574	17,176
Unwinding of discount	33	-1	32	40	-1	39
Less payments						
For the year under review	-5,207	188	-5,019	-4,922	164	-4,758
For previous years	-11,969	426	-11,543	-9,813	478	-9,335
Total payments	-17,176	614	-16,563	-14,735	642	-14,094
Balance at 31 Dec. financial year	**58,848**	**-2,634**	**56,214**	**57,809**	**-2,700**	**55,109**

1 Comprises the segments property-casualty reinsurance, ERGO Property-casualty Germany and the property-casualty section of the ERGO International segment.

The claims expenses for the financial year show payments made for the financial year and expenses for posting the claims reserve in that year. The provisions set up for claims from previous years are regularly updated using best estimates based on exposure and claims information and past claims experience. The respective change is shown under Claims expenses for previous years. The increase in the provisions for outstanding claims resulted from the increase in the IBNR reserve for COVID-19-related losses.

In the financial year, most sectors experienced relatively low claims-reporting activity from previous years, which had a positive influence on the ultimate-loss projection.

Net run-off results in property-casualty business The values in the following run-off triangles cover more than 99% of our Group's portfolio of property-casualty business.

Claims payments for the individual accident years (per calendar year, net)

€m	Accident year											
Calendar year	≤ 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
2010	12,291											
2011	7,670	5,479										
2012	3,921	4,009	5,438									
2013	2,138	1,918	2,813	5,332								
2014	2,367	1,062	1,350	3,088	5,057							
2015	1,729	528	434	1,180	2,739	4,757						
2016	1,813	423	333	648	1,409	2,586	5,007					
2017	593	119	185	436	636	1,272	2,501	4,712				
2018	771	148	203	269	358	744	1,586	4,018	5,269			
2019	799	94	130	161	226	387	775	1,827	4,424	4,565		
2020	594	108	164	165	291	464	464	1,323	2,362	5,104	4,940	15,980

Claims reserves for the individual accident years at the respective reporting dates (net)

€m	Accident year											
Date	≤ 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
31 Dec. 2010	39,724											
31 Dec. 2011	31,412	11,368										
31 Dec. 2012	26,292	7,462	8,406									
31 Dec. 2013	23,756	5,282	5,353	8,407								
31 Dec. 2014	20,502	3,837	3,822	5,516	8,589							
31 Dec. 2015	17,688	3,181	3,193	4,305	5,877	8,170						
31 Dec. 2016	15,328	2,307	2,826	3,382	4,462	5,634	8,784					
31 Dec. 2017	14,441	2,167	2,541	2,877	3,621	4,165	6,134	11,984				
31 Dec. 2018	12,836	1,742	2,091	2,324	3,012	3,213	4,595	7,980	11,710			
31 Dec. 2019	10,881	1,389	1,741	2,015	2,605	2,683	3,646	6,041	8,107	13,372		
31 Dec. 2020	9,578	1,131	1,390	1,494	2,106	2,108	2,841	4,643	6,100	8,752	16,082	56,227

Ultimate loss for the individual accident years at the respective reporting dates (net)

€m	Accident year											
Date	≤ 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
31 Dec. 2010	52,015											
31 Dec. 2011	51,373	16,847										
31 Dec. 2012	50,174	16,950	13,845									
31 Dec. 2013	49,777	16,688	13,604	13,739								
31 Dec. 2014	48,890	16,305	13,423	13,935	13,646							
31 Dec. 2015	47,804	16,176	13,228	13,905	13,673	12,927						
31 Dec. 2016	47,257	15,725	13,194	13,629	13,667	12,977	13,791					
31 Dec. 2017	46,964	15,703	13,094	13,560	13,462	12,780	13,642	16,696				
31 Dec. 2018	46,130	15,427	12,847	13,277	13,211	12,572	13,689	16,710	16,979			
31 Dec. 2019	44,974	15,169	12,627	13,129	13,029	12,429	13,515	16,598	17,800	17,936		
31 Dec. 2020	44,265	15,019	12,440	12,773	12,821	12,318	13,174	16,523	18,155	18,421	21,022	196,932
Net run-off result	7,749	1,828	1,405	966	825	609	617	173	–1,177	–484	n/a	12,511
Change 2019 to 2020	708	150	187	356	208	111	341	74	–355	–484	n/a	1,295

The ultimate loss of an accident year comprises all payments made for that accident year up to the reporting date, plus the claims reserve at the reporting date. Given complete information regarding all losses incurred up to the end of the reporting period, the ultimate-loss status for each accident-year period would remain the same. In practice, however, the ultimate-loss status (based on estimates) is exposed to fluctuations that reflect the growth in knowledge about the claims cases. Changes in the consolidated group, especially new acquisitions or the composition of reportable segments, can also have an influence on the ultimate-loss status.

The run-off triangles are prepared on a currency-adjusted basis. For this purpose, all figures are translated from the respective local currency into the Group currency (euro) based on year-end exchange rates. This ensures that currency translation does not lead to run-off effects.

23 Other technical provisions

Breakdown of other technical provisions

€m	31.12.2020	Prev. year
Provision for premium refunds based on national regulations	9,311	9,312
Provision for deferred premium refunds	12,376	10,957
Thereof resulting from unrealised gains and losses on investments (recognised directly in equity)	6,998	6,168
Thereof resulting from other remeasurements (recognised in profit or loss)	5,379	4,788
Provision for profit commissions	623	611
Other	168	132
Total (gross)	**22,478**	**21,011**

Of the provision for premium refunds based on national regulations, €79m (79m) is apportionable to property-casualty insurance. The provision for deferred premium refunds is established solely for life and health insurance.

The ceded share of Other technical provisions amounts to €67m (67m), of which €1m (3m) is apportionable to the ceded share of the provision for premium refunds based on national regulations.

Development of provision for premium refunds based on national regulations

€m	2020	Prev. year
Status at 31 Dec. previous year	9,312	8,549
Changes in consolidated group	0	175
Allocation/Withdrawal	–1	588
Status at 31 Dec. financial year	**9,311**	**9,312**

Development of provision for deferred premium refunds

€m	2020	Prev. year
Status at 31 Dec. previous year	10,957	8,041
Changes in consolidated group	0	216
Change resulting from unrealised gains and losses on investments (recognised directly in equity)	829	2,915
Change resulting from other remeasurements (recognised in profit or loss)	590	–215
Status at 31 Dec. financial year	**12,376**	**10,957**

The above change resulting from unrealised gains and losses on investments reflects the proportional allocation to expected future policyholders' bonuses of the change in fair values that occurred in the past year.

To determine the portion of the valuation differences allocable to the provision for deferred premium refunds, rates of between 50% and 92.5% after tax were used.

24 Gross technical provisions for unit-linked life insurance

Development of gross provisions

€m	2020	Prev. year
Balance at 31 Dec. previous year	8,172	7,925
Changes in consolidated group/Other	–21	5
Savings premiums	473	510
Unrealised gains/losses on fund assets	41	1,044
Withdrawal for expenses and risk	–34	–32
Withdrawal for benefits	–676	–1,279
Balance at 31 Dec. financial year	**7,955**	**8,172**

These provisions are measured retrospectively. The withdrawal for underwriting risks from the premiums and provision for future policy benefits is made on the basis of prudent assumptions regarding expected mortality and morbidity. Here, as with the provision for future policy benefits for non-unit-linked life insurance, we base the underlying calculation on best estimates, with appropriate provisions for adverse deviation.

The provisions are directly covered by the investments for unit-linked life insurance contracts. Small differences in relation to these investments arise as a result of including unearned revenue liability in these provisions.

25 Other provisions

Breakdown of other provisions

€m	31.12.2020	Prev. year
Provisions for post-employment benefits	4,121	3,748
Other provisions	1,317	1,543
Total	**5,438**	**5,291**

Provisions for post-employment benefits and similar obligations

Munich Re companies generally give pension commitments to their employees in the form of defined contribution plans or defined benefit plans. Special regional economic, legal and tax features are taken into account. The type and amount of the pension obligations are determined by the conditions of the respective pension plan. The pension commitments comprise obligations towards active members or retired members with vested benefits, and current pension payments. Defined benefit plans are funded internally through provisions for post-employment benefits, and externally through funds or insurance contracts concluded to cover the benefit obligations.

Expenses for defined contribution plans in the year under review totalled €65m (68m), and expenses for contributions to state plans amounted to €114m (111m).

The present value of obligations under defined benefit pension plans amounts to €7,742m (7,067m), and the plan assets to be deducted total €4,067m (3,746m). Defined benefit plans comprise the following main plans:

Munich Reinsurance Company's pension obligations account for €1,927m (1,677m) of the present value of obligations under defined benefit pension plans and €2,174m (1,908m) of plan assets. The obligations include disability and old-age pensions, and pensions for surviving dependants. The amount of the pensions generally depends on salary and length of service. The defined benefits granted up to 31 December 2007 are financed through a fund. New members on or after 1 January 2008 receive pension commitments in the form of defined contribution plans financed by means of insurance contracts securing the obligations under pension schemes. The fund and insurance contracts have been grouped in a contractual trust agreement (CTA).

ERGO Group's pension obligations account for €4,193m (3,784m) of the present value of obligations under defined benefit pension plans and €553m (501m) of plan assets. The obligations include disability and old-age pensions, and pensions for surviving dependants. The amount of the pensions generally depends on salary and length of service. The commitments are generally funded through pension provisions. New members receive pension commitments in the form of defined contribution plans financed by means of intra-Group insurance contracts securing the obligations under pension schemes. There are also medical-care benefit obligations.

The pension obligations of Munich Reinsurance America, Inc. account for €746m (749m) of the present value of obligations under defined benefit plans, and €576m (562m) of plan assets. The obligations include pensions for employees and surviving dependants. The amount of the pensions generally depends on includable compensation and length of service. The plan is financed through a fund and pension provisions. The plan was closed to new members effective 1 January 2006 and to all remaining members effective 31 December 2011. With effect from 1 January 2012, all members now receive pension commitments in the form of defined contribution plans. There are also retiree medical-care benefit obligations.

Development of the present value of the defined benefit obligations

€m	2020	Prev. year
Status at 31 Dec. previous year	7,067	5,921
Currency translation differences	–109	47
Changes in consolidated group	–1	–1
Current service cost	162	124
Past service cost	5	38
Gains and losses from plan settlements	0	–6
Contributions by plan participants	3	3
Interest expense	79	127
Payments	–165	–163
Payments from plan settlements	–3	–11
Transfer of obligations	–15	–2
Actuarial gains/losses: Change in demographic assumptions	–11	–327
Actuarial gains/losses: Change in financial assumptions	732	1,290
Actuarial gains/losses: Experience adjustments	0	26
Other	–1	–1
Status at 31 Dec. financial year	**7,742**	**7,067**

The present value of medical-care benefit obligations amounted to €363m (324m) at the end of the reporting period.

The present value of the obligations under defined benefit plans breaks down as follows:

Breakdown of the present value of defined benefit obligations

%	31.12.2020	Prev. year
Active members	49	49
Deferred members	17	17
Pensioners	34	34
Total	**100**	**100**

Pension obligations are measured using assumptions about future developments. The consolidated companies used the following actuarial assumptions (weighted-average values):

Actuarial assumptions

%	2020	Prev. year
Discount rate	0.6	1.2
Future increases in entitlement/salary	1.8	1.8
Future pension increases	1.3	1.5
Medical cost trend rate	3.3	3.5

In the eurozone, the actuarial interest rate was 0.20% (0.75%) as at 31 December 2020. The actuarial losses from changes in financial assumptions amounting to €576m (1,098m) primarily arose from the reduction in the actuarial interest rate.

Munich Re uses generally recognised biometric actuarial assumptions, adjusted as a rule to take account of company-specific circumstances. The average remaining life expectancy of a 65-year-old plan participant is 23.7 years for women and 22.6 years for men.

Development of the fair value of plan assets for defined benefit plans

€m	2020	Prev. year
Balance at 31 Dec. previous year	3,746	3,301
Currency translation differences	–88	45
Changes in consolidated group	–1	–1
Interest income	50	80
Return excluding interest income	386	348
Contributions by the employer	71	66
Contributions by plan participants	1	1
Payments	–80	–83
Payments from plan settlements	–1	–11
Transfer of assets	–15	0
Other	–2	–1
Balance at 31 Dec. financial year	**4,067**	**3,746**

Breakdown of the fair value of plan assets for defined benefit plans

%	31.12.2020	Prev. year
Quoted market price in an active market		
Fixed-interest securities	40	40
Non-fixed-interest securities	21	23
Equities	4	5
Investment funds	17	18
Other	0	0
Other	1	0

Breakdown of the fair value of plan assets for defined benefit plans

%	31.12.2020	Prev. year
No quoted market price in an active market		
Cash or cash equivalents	1	0
Real estate	0	1
Fixed-interest securities	0	0
Non-fixed-interest securities	2	3
Equities	0	0
Investment funds	2	3
Other	0	0
Insurance contracts	34	32
Other	1	1

As in the previous year, the plan assets do not include any own shares.

For the 2021 financial year, capital transfers of €83m (85m) to plan assets are expected.

Development of the reimbursement rights for defined benefit plans

€m	2020	Prev. year
Balance at 31 Dec. previous year	357	292
Changes in consolidated group	0	0
Interest income	3	5
Return excluding interest income	34	47
Contributions by the employer	19	19
Contributions by plan participants	0	0
Payments	–8	–8
Transfer of assets	0	0
Other	0	–1
Balance at 31 Dec. financial year	**404**	**357**

The reimbursement rights derive from insurance concluded to cover the benefit obligations.

There was an effect of €15m (17m) resulting from the asset ceiling on overfunded defined benefit plans.

Funded status of defined benefit plans

€m	31.12.2020	Prev. year
Obligations funded through provisions		
Present value of defined benefit obligations	3,619	3,404
Other	0	0
Net balance sheet liability	3,619	3,404
Obligations funded through plan assets		
Present value of defined benefit obligations	4,123	3,663
Plan assets	–4,067	–3,746
Assets from the defined benefit plan	430	412
Effect of asset ceiling	15	17
Other	0	–2
Net balance sheet liability	502	344
Obligations independent of funded obligations		
Present value of defined benefit obligations	7,742	7,067
Plan assets	–4,067	–3,746
Assets from the defined benefit plan	430	412
Effect of asset ceiling	15	17
Other	0	–2
Net balance sheet liability	**4,121**	**3,748**

The plan assets have the exclusive purpose of fulfilling the defined benefit obligations to which they are allocated and making provision for future outflows. This is required by law in several countries, whilst in other countries plan assets are provided on a voluntary basis.

The relationship between the fair value of the plan assets and the present value of the defined benefit obligations is referred to as the funded status. If the present value of defined benefit obligations exceeds the fair value of the plan assets, this excess of liabilities over assets is financed by means of provisions for post-employment benefits.

If the fair value of the plan assets exceeds the present value of the defined benefit obligations, an asset arises out of the defined benefit plan. As each plan is analysed individually, this may give rise to both a provision for post-employment benefits and an asset from the defined benefit plan.

Market fluctuations may give rise to changes in the fair value of the plan assets over time. Adjustments to the actuarial assumptions (e.g. life expectancy, actuarial interest rate) or deviations in actual risk experience from the risk experience assumed may result in changes in the present value of the defined benefit obligations. Both factors may therefore lead to fluctuations in the funded status. To avoid these fluctuations wherever possible, care is taken, when choosing investments, that fluctuations in the fair value of the plan assets and in the present value of defined benefit obligations offset each other as far as possible whenever changes in certain influencing variables occur (asset-liability matching).

Development of the provision for defined benefit plans

€m	2020	Prev. year
Balance at 31 Dec. previous year	3,748	2,992
Currency translation differences	–26	8
Changes in consolidated group	0	–1
Expenses	198	200
Payments	–84	–80
Payments from plan settlements	–1	0
Capital transfer to plan assets	–72	–67
Transfer of assets	0	0
Transfer to other receivables	22	42
Actuarial gains/losses recognised in equity	301	598
Other	36	57
Balance at 31 Dec. financial year	**4,121**	**3,748**

Breakdown of expenses booked in the financial year

€m	2020	Prev. year
Net interest cost	27	41
Service cost	169	160
Other	1	–1
Total	**198**	**200**

The expenses are distributed between the functional areas and shown mainly under Operating expenses and Expenses for claims and benefits in the consolidated income statement.

The actual return on plan assets amounted to €436m (428m), and the actual gains on reimbursements to €36m (53m).

Contractual period to maturity of pension obligations

€m	31.12.2020	Prev. year
Up to one year	171	167
Over one year and up to five years	761	762
Over five years and up to ten years	1,061	1,076
Over ten years and up to twenty years	2,439	2,514
Over twenty years	5,022	5,519
Total	**9,455**	**10,038**

The weighted average contractual period to maturity of our pension obligations is 21 (20) years.

An increase or decrease in the following essential actuarial assumptions has an impact on the present value of defined benefit obligations:

Sensitivity analysis

€m	31.12.2020	Prev. year
Increase in actuarial discount rate by 50 BP	–753	–668
Decrease in actuarial discount rate by 50 BP	875	773
Increase in salary/entitlement trends by 10 BP	34	31
Decrease in salary/entitlement trends by 10 BP	–30	–29
Increase in pension trends by 10 BP	83	72
Decrease in pension trends by 10 BP	–80	–70
Increase in medical cost trend rate by 100 BP	65	56
Decrease in medical cost trend rate by 100 BP	–54	–46
Increase in mortality rate by 10%	–253	–217
Decrease in mortality rate by 10%	273	233

The calculations for the actuarial assumptions classified as essential were carried out individually in order to display their effects separately.

Miscellaneous provisions

Miscellaneous provisions

€m	Prev. year	Additions	Withdrawals	Reversal	Other changes	31.12.2020
Restructuring	361	56	–82	–39	0	296
Commissions	193	2,094	–2,075	–7	–4	201
Multi-year variable compensation	152	65	–39	–79	–4	95
Early retirement benefits/semi-retirement	149	32	–22	0	–8	152
Salary obligations and other remuneration for desk and field staff	117	59	–106	–32	–2	36
Anniversary benefits	101	10	–1	0	0	110
Miscellaneous	469	296	–219	–107	–13	426
Total	**1,543**	**2,612**	**–2,544**	**–264**	**–31**	**1,317**

The provisions for restructuring mainly concern €212m (246m) for the "ERGO Strategy Programme" and €70m (107m) for the comprehensive restructuring of the sales organisations of the ERGO Group. ERGO also posted further restructuring provisions of €1m (1m) for the discontinuation of new business and the winding up of the sales organisation in Belgium. The provision for multi-year variable remuneration includes components for multi-year performance and for the incentive plans. The Miscellaneous provisions comprise a large number of different items. The provisions for restructuring, early-retirement benefits/semi-retirement, anniversary benefits, multi-year performance and incentive plans are mainly long term, whereas the provisions for commissions, salary obligations and other remuneration for desk and field staff, and miscellaneous are essentially short term.

26 Bonds and notes issued

Breakdown of bonds and notes issued

€m	A.M. Best	Fitch	Moody's	S&P	31.12.2020	Prev. year
Munich Re America Corporation, Wilmington, 7.45%, US$ 334m, Senior Notes 1996/2026	a	A+	A2	A–	272	297
Total					**272**	**297**

Outflows of liquidity occur annually in the amount of the interest payments until the notes mature. These totalled US$ 25m (25m) in the financial year. The fair value at the reporting date amounts to €374m (384m).

27 Deposits retained on ceded business

Deposits retained on ceded business are collateral for technical provisions covering business ceded to reinsurers and retrocessionaires. As a rule, the changes in deposits retained on ceded business derive from the changes in the relevant technical provisions covering ceded business. Deposits retained on ceded business thus do not have a fixed maturity date, their release generally being dependent on run-off of the corresponding provisions.

28 Other liabilities

Breakdown of other liabilities

€m	31.12.2020	Prev. year
Amounts payable on primary insurance business	2,965	2,989
Accounts payable on reinsurance business	5,001	4,293
Amounts due to banks	1,022	557
Lease liabilities	402	374
Miscellaneous liabilities	15,505	11,430
Total	**24,895**	**19,643**

The amounts payable on primary insurance business mainly contain liabilities towards policyholders resulting from accumulated participation in surplus, premium deposits and primary insurance contracts with non-significant risk transfer.

For more information on the interest paid for liabilities from leases in the 2020 financial year, please refer to (36) Other operating result. See (29) Liabilities from financing activities for information on cash outflows for leases in 2020.

Of the amounts due to banks, €63m (78m) is attributable to bank borrowing by Group companies acquired by Munich Re under its infrastructure investment strategy. The fair value of the debts owed to credit institutions at the end of the reporting period amounted to €1,028m (567m).

The miscellaneous liabilities contain liabilities of €6,827m (5,166m) resulting from reinsurance treaties with non-significant risk transfer, derivative financial instruments with a negative fair value of €808m (604m), and negative fair values totalling €2,519m (1,122m) for insurance-linked derivatives and hedging derivatives of variable annuities. The miscellaneous liabilities also include €25m (26m) for social security and €19m (32m) for interest and rent.

Of the liabilities resulting from reinsurance treaties with non-significant risk transfer, €762m (123m) are shown on a net basis in the balance sheet; a total of €154m (98m) was recognised for derivatives with a negative market value.

The following table provides information on the contractual future cash outflows of the items shown under Other liabilities. The amounts payable on primary insurance business are directly linked to the underlying insurance business, and therefore not taken into account here (see (39) Disclosures on risks from life and health insurance business).

Maturity analysis of future cash flows from other liabilities

€m	Non-derivative liabilities		Derivative liabilities	
	31.12.2020	Prev. year	31.12.2020	Prev. year
Up to one year	11,912	9,183	435	470
Over one year and up to two years	2,417	257	–17	7
Over two years and up to three years	347	2,626	26	8
Over three years and up to four years	1,187	274	8	36
Over four years and up to five years	854	298	62	30
Over five years and up to ten years	1,477	1,867	602	359
Over ten years	346	356	1,941	665
Total	**18,540**	**14,861**	**3,056**	**1,575**

Given that the majority of other liabilities have a period to maturity of less than one year, the fair values largely correspond to the carrying amounts. The miscellaneous liabilities include liabilities of €6,827m (5,166m) resulting from reinsurance treaties with non-significant risk transfer. These usually have longer periods to maturity to match the cover and run-off periods of the underlying risks. Their fair value amounted to €7,609m (5,166m). We allocate these to Level 3 of the fair value hierarchy, as their measurement is primarily based on biometric and lapse rates and historical event data.

29 Liabilities from financing activities

The table shows the cash and non-cash changes in liabilities arising from financing activities between the beginning of the financial year and the balance sheet date. The cash changes are included in the consolidated cash flow statement as item III. Cash flows from financing activities.

Change in the liabilities from financing activities

	Short-term borrowings		Long-term borrowings		Lease liabilities		Liabilities from financing activities	
€m	2020	Prev. year	2020	Prev. year	2020	Prev. year	2020	Prev. year
Balance at 31 December previous year	557	674	4,136	3,980	374	341	5,067	4,995
Cash changes	465	–118	1,042	0	-82	-86	1,424	–204
Non-cash changes								
Currency changes	–1	2	–57	36	–13	–3	–71	35
Changes in the fair value	0	0	0	0	0	0	0	0
Changes in consolidated group/other	0	0	199	120	124	122	323	242
Balance at 31 Decmber financial year	**1,022**	**557**	**5,320**	**4,136**	**402**	**374**	**6,743**	**5,068**

Long-term borrowings include subordinated liabilities and bonds and notes issued.

Notes to the consolidated income statement

30 Premiums

Premiums

€m	2020	Prev. year
Total gross premiums	55,769	52,687
Gross premiums written	54,890	51,457
Change in gross unearned premiums	–1,102	–584
Gross earned premiums	**53,788**	**50,873**
Ceded premiums written	–2,550	–2,650
Change in unearned premiums – Ceded share	–16	57
Earned premiums ceded	**–2,566**	**–2,594**
Net earned premiums	**51,223**	**48,280**

The total gross premiums include not only the gross premiums written but also savings premiums from unit-linked life insurance and capitalisation products.

Premiums from long-term insurance business, especially in life primary insurance, are recognised in full as earned premiums and income when they become due. Under gross premiums written, only those parts of the premium from unit-linked life business are included that are used to cover the risks and associated costs.

Of the gross premiums written from short-term insurance business, the portions attributable to periods after the end of the reporting period are recognised as unearned premiums; see (20) Unearned premiums. Over the duration of the contracts, unearned premiums are reversed in accordance with the reduction in risk.

In addition to premiums, Munich Re receives revenues within the meaning of IFRS 15, Revenue from Contracts with Customers, which essentially derive from technical engineering and inspection services, investment management services, and from services in connection with the generation of electricity from renewable energy sources and with the provision of insurance-related software. The income from these services is largely recognised for the period in question. The volume of this revenue under IFRS 15 is around 1% of gross premiums written.

31 Income from technical interest

The income from technical interest is the amount earned by assumed insurance business from the mainly risk-free investment of assets covering the technical provisions. The deposits retained on ceded business are also taken into account as a basis for the technical interest. Thus the portion of investment income corresponding to the deposit interest expense is included as a component in the calculation of the technical interest and reallocated to the technical result.

Quantitative information on technical interest can be found in the segment income statement.

In terms of the assets required to cover the technical provisions, the composition of the technical interest varies from segment to segment, depending on the type of insurance business conducted and the related statutory regulations.

In the life and health reinsurance segment, the income from technical interest in life reinsurance business corresponds to the risk-free interest on our technical provisions. For deposited provisions, income from technical interest corresponds to the agreed interest rate. In health reinsurance business, the interest on long-term reinsurance treaties corresponds to the contractually agreed allocations of interest. For short-term reinsurance business, the income from technical interest is calculated on the basis of the risk-free interest on technical provisions at the relevant national interest rate.

In property-casualty reinsurance, we allow for the fact that provisions established in prior years were invested at higher interest rates than the current level of market interest rates. The income from technical interest therefore corresponds to the risk-free interest on our discounted technical provisions at the respective historical interest rate, taking into account the relevant period of insurance and currency. Short-term interest rates are applied to the difference between the discounted provisions and balance sheet provisions.

In the ERGO Life and Health Germany segment, the income from technical interest for life primary insurance companies comprises the gains and losses from unit-linked life insurance, plus the guaranteed interest rate and profit sharing on the basis of the non-technical result sources. For health primary insurance companies, the income from technical interest corresponds to the allocation of interest to the ageing reserve (actuarial interest) and the allocation to the provision for premium refunds. The latter is based on the allocation of interest to the provision for non-performance-related premium refunds, on the investment result exceeding the actuarial interest rate, and on policyholders' participation in the other non-technical result components.

In the ERGO Property-casualty Germany segment, the income from technical interest is calculated analogously to the procedure in the property-casualty reinsurance segment.

In the ERGO International segment, the income from technical interest for life primary insurance companies corresponds to the risk-free interest on the provision for future policy benefits at the relevant national interest rate, the gains and losses from unit-linked life insurance, and profit sharing where there are types of contract providing for this. The income from technical interest for property-casualty primary insurance companies is calculated analogously to the procedure in the property-casualty reinsurance segment.

The income from technical interest for health primary insurance business is based on the interest on other technical provisions at the relevant national risk-free interest rate and, where applicable, on the interest allocated to the provision for future policy benefits.

32 Expenses for claims and benefits

Expenses for claims and benefits

€m	2020	Prev. year
Gross		
Claims and benefits paid	-37,319	-34,843
Change in technical provisions		
Provision for future policy benefits	-331	-774
Provision for outstanding claims	-5,174	-3,441
Provision for premium refunds	-1,681	-1,876
Other technical result	-129	-125
Gross expenses for claims and benefits	**-44,635**	**-41,058**
Ceded share		
Claims and benefits paid	998	1,058
Change in technical provisions		
Provision for future policy benefits	500	432
Provision for outstanding claims	93	-99
Provision for premium refunds	0	0
Other technical result	-34	-19
Expenses for claims and benefits – Ceded share	**1,558**	**1,373**
Net		
Claims and benefits paid	-36,321	-33,785
Change in technical provisions		
Provision for future policy benefits	169	-342
Provision for outstanding claims	-5,081	-3,539
Provision for premium refunds	-1,681	-1,875
Other technical result	-162	-143
Net expenses for claims and benefits	**-43,077**	**-39,685**

In reinsurance, COVID-19-related losses amounted to €3,436m, of which €370m was attributable to life and health reinsurance and slightly over €3bn to property-casualty reinsurance. At ERGO, the negative impact arising from COVID-19 totalled €64m.

The change in the provision for future policy benefits (net) contains €41m (1,044m) in unrealised gains/losses from unit-linked life insurance. The change in the provision for outstanding claims includes an increase in the gross IBNR provisions of €3,665m (2,980m), in the gross case reserve of €1,080m (51m), and in the gross annuity claims provision of €430m (416m). Expenses for claims and benefits include expenses for policyholders' bonuses. Of this, €735m (1,231m) is for the allocation to the provision for premium refunds on the basis of national regulations, €590m (10m) for the change in the provision for deferred premium refunds recognised in the income statement, and €62m (293m) for direct crediting. The other technical result for life primary insurance mainly includes interest on policyholders' accumulated credit.

Expenses for profit commission in reinsurance are shown under Operating expenses, not under Expenses for claims and benefits.

33 Operating expenses

Operating expenses

€m	2020	Prev. year
Gross		
Acquisition costs, profit commission and reinsurance commission paid	-10,697	-10,492
Administrative expenses	-2,841	-3,132
Change in deferred acquisition costs and contingent commissions, amortisation and impairment losses on acquired insurance portfolios	159	8
Gross operating expenses	**-13,379**	**-13,616**
Ceded share		
Acquisition costs, profit commission and reinsurance commission paid	677	681
Change in deferred acquisition costs and contingent commissions	-113	-121
Operating expenses – Ceded share	**564**	**560**
Net operating expenses	**-12,815**	**-13,056**

Gross operating expenses decreased to €13,379m (13,616m); net operating expenses to €12,815m (13,056m). The combined ratio, which is calculated as the percentage ratio of the sum of net expenses for claims and benefits plus net operating expenses to net earned premiums, came to 105.6% (100.2%) in the property-casualty reinsurance segment, 92.4% (92.3%) in the ERGO Property-casualty Germany segment, and 92.7% (94.3%) in the ERGO International segment.

34 Investment result

Investment result by type of investment (before deduction of income from technical interest)

€m	2020	Prev. year
Land and buildings, including buildings on third-party land	**807**	**550**
Investments in affiliated companies	**-49**	**10**
Investments in associates and joint ventures	**157**	**213**
Loans	**2,240**	**2,070**
Other securities available for sale		
Fixed-interest	4,281	4,214
Non-fixed-interest	62	1,475
Other securities at fair value through profit or loss		
Held for trading		
Fixed-interest	0	0
Non-fixed-interest	7	15
Derivatives	172	–595
Designated at fair value through profit or loss		
Fixed-interest	18	17
Non-fixed-interest	14	51
Deposits retained on assumed reinsurance, and other investments	**288**	**396**
Expenses for the management of investments, other expenses	**-597**	**-592**
Total	**7,398**	**7,822**

The result for land and buildings includes rental income of €563m (513m). The expenses for the management of investments include running costs and expenses for repair and maintenance of property totalling €64m (103m). We earned interest income of €1,708m (1,857m) on loans. Other securities available for sale produced regular income of €3,407m (3,696m), while derivatives generated €128m (146m). Interest expenses on non-derivative investments amounted to €15m (11m), administrative expenses to €385m (363m), and other expenses to €148m (126m).

Impairment losses on non-derivative investments

€m	2020	Prev. year
Land and buildings, including buildings on third-party land	–178	–139
Investments in affiliated companies	-34	-3
Investments in associates and joint ventures	-3	-1
Loans	-1	-21
Other securities available for sale[1]	–1,788	–345
Other securities at fair value through profit or loss	-101	-25
Other investments	-64	-41
Total	**-2,169**	**-575**

1 See (7) Other securities available for sale.

35 Insurance-related investment result

Insurance-related investment result

€m	2020	Prev. year
Result from investments for unit-linked life insurance contracts	62	1,091
Result from other insurance-related investments	43	91
Total	**105**	**1,182**

36 Other operating result

Other operating result

€m	2020	Prev. year
Other operating income	1,168	1,178
Thereof:		
Interest and similar income	229	239
Write-ups of other operating assets	95	25
Other operating expenses	–2,016	–2,290
Thereof:		
Interest and similar charges	–128	–156
Write-downs of other operating assets	-53	–116

Other operating income mainly comprises income of €634m (684m) from services rendered, interest income of €79m (109m), income of €187m (84m) from the release/reduction of miscellaneous provisions and provisions for bad and doubtful debts, and income of €32m (34m) from owner-occupied property, some of which is also leased out.

Other operating expenses include expenses of €612m (672m) for services rendered and interest charges of €116m (142m), thereof €8m (7m) from leases. In addition, they mainly include other impairment losses of €43m (108m), as well as other tax of €124m (138m) and expenses of €16m (15m) for owner-occupied property, some of which is also leased out.

The other operating result also includes a large share of the result from reinsurance treaties with non-significant risk transfer totalling €137m (115m). A total of €136m (114m) derives from the life and health reinsurance segment.

37 Other non-operating result, currency result and net finance costs

Other non-operating result, currency result and net finance costs

€m	2020	Prev. year
Other non-operating result	-83	-91
Currency result	-200	73
Net finance costs	-223	-222

The other non-operating result is unrelated to the conclusion, administration or settlement of insurance contracts or the administration of investments. It essentially comprises the other non-technical result of €28m (14m), impairment losses of €59m (46m) on other intangible assets, and restructuring expenses of €51m (60m).

Net finance costs include all interest income, interest expenses and other expenses directly attributable to strategic debt. Debt has a strategic character for us if it does not have an original, direct link with our operative business.

Net finance costs by financing instrument

€m	2020	Prev. year
Subordinated bonds of Munich Reinsurance Company, Munich	-197	-194
Senior notes of Munich Re America Corporation, Wilmington	-22	-22
Subordinated bonds of HSB Group Inc., Delaware	-3	-3
Other	-1	-2
Total	**-223**	**-222**

38 Taxes on income

This item shows the corporation tax and municipal trade earnings tax paid by the German consolidated companies (including solidarity surcharge) and the comparable taxes on earnings paid by the foreign consolidated companies in the Group. The determination of taxes on income includes the calculation of deferred taxes.

Main components of tax expenses/income

€m	2020	Prev. year
Current tax for financial year	-707	-673
Current tax for other periods	373	114
Deferred tax resulting from the occurrence or reversal of temporary differences	87	-3
Deferred tax resulting from the occurrence or utilisation of loss carry-forwards	-77	184
Valuation allowances for deferred taxes/loss carry-forwards	57	-82
Effects of changes in tax rates on deferred tax	-2	-23
Taxes on income	**-269**	**-483**

The following table shows the reconciliation between the expected taxes on income and the tax on income actually shown. The expected tax expenses are calculated by multiplying the consolidated result before taxes on income (after "other tax") by the Group tax rate. The applicable Group tax rate amounts to 33%. This takes into account corporation tax including solidarity surcharge, and trade tax (GewSt). The municipal trade-tax multipliers range from 240% to 490%.

Reconciliation to effective tax expenses/income

€m	2020	Prev. year
Result before taxes on income (after "other tax")	1,480	3,190
Group tax rate in %	33	33
Derived taxes on income	-489	-1,053
Tax effect of:		
Tax rate differences	31	300
Tax-free income	-82	258
Non-deductible expenses	-121	-181
Valuation allowances for deferred taxes/loss carry-forwards	57	-82
Change in tax rates and tax legislation	-2	88
Tax for prior years	394	273
Trade tax adjustments	32	-1
Other	-89	-85
Taxes on income shown	**-269**	**-483**

The effective tax burden is the ratio between the Taxes on income shown and the Result before taxes on income (after "other tax"). In the 2020 financial year, the tax burden was 18.2% (previous year: 15.1%).

Disclosures on risks from insurance contracts and financial instruments

Munich Re's reporting is based on various legal regulations governing risks it is exposed to as a result of its business operations:

In the Notes to the financial statements, risks from insurance contracts must be reported in accordance with IFRS 4 and risks from financial instruments in accordance with IFRS 7. Further disclosures on risks are required in the risk report in the combined management report on the basis of Section 315 (2) no. 1 of the German Commercial Code (HGB) and German Accounting Standard no. 20 (DRS 20) for management reports.

Since risk reporting concerns not only accounting but also the activities of integrated risk management (IRM) at Munich Re, information on risks is provided in the risk report, in the disclosures on risks from insurance contracts and financial instruments, and in the disclosures on technical provisions and financial instruments in the Notes to the financial statements. Where necessary, we refer to the relevant information in the risk report and information on the respective items.

The disclosures in the risk report largely adopt a purely economic view. The report provides an account of the organisation of risk management and Munich Re's risk strategy, briefly outlines the main risks we are exposed to, and describes the economic risk capital calculated by means of our internal risk model. The report also contains information on specific risk complexes.

The provision – stipulated by the requirements of IFRS 4 – of quantitative data on the effects of changes in the assumptions underlying the measurement of insurance contracts and/or in the market environment is also covered by information about economic risk capital stated in the risk report.

In the Notes to the financial statements, we describe in detail uncertainties involved in measuring insurance contracts. For risks from financial instruments, IFRS 7 stipulates that the disclosures must comprise information on the remaining terms and the rating.

39 Disclosures on risks from life and health insurance business

Significant risks from life and health insurance business comprise underwriting risks, market risks and liquidity risks. These risks are described in detail in the risk report in the combined management report.

Of particular importance for the **underwriting risks** are biometric risks and lapse risks. Biometric risks mainly relate to mortality, disability, morbidity and longevity. The biometric assumptions we use for measuring insurance contracts in our portfolios are regularly reviewed on the basis of updated portfolio information. Especially in primary insurance, this includes considering country-specific reviews by supervisory authorities. We also take account of market standards when checking the adequacy of biometric actuarial assumptions and the trend assumptions included in them. In reinsurance, a lapse risk also derives from the indirect transfer of lapse risks from cedants. As a rule, both this risk and the financial risk from extraordinary termination of reinsurance contracts are largely ruled out through appropriate contract design. The lapse risk in primary insurance is allowed for by means of appropriate liquidity planning and adequate calculation of the surrender value.

Our main **market risk** exposure with regard to our technical provisions is interest-rate risk. A distinction must be made between risks of changes in interest rates on the one hand and interest-rate guarantee risks on the other. Risks of changes in interest rates would result from the discounting of the provision for future policy benefits and of parts of the provision for outstanding claims. In accordance with accounting valuation rules, the discount rate is fixed at contract commencement and will generally not be adjusted during the term of the contract. To this extent, the accounting valuation of these technical provisions does not depend directly on the level of the market interest rates. Economically, however, an interest-rate risk derives in principle from the need to earn a return on the investments covering the provision that is commensurate with the discount rate used in measuring the provision.

In reinsurance, we use the following discount rates for the provision for future policy benefits and the provision for outstanding claims:

Discount rates used for provisions – Reinsurance (gross)

€m	31.12.2020	Prev. year
Without discount rate	4,298	3,907
Discount rate ≤ 2.0%	1,195	1,055
2.0% < discount rate ≤ 3.0%	2,948	2,587
3.0% < discount rate ≤ 4.0%	4,055	4,362
4.0% < discount rate ≤ 5.0%	2,866	3,138
5.0% < discount rate ≤ 6.0%	1,462	1,573
6.0% < discount rate ≤ 7.0%	94	97
7.0% < discount rate ≤ 8.0%	423	476
Discount rate > 8.0%	230	247
Covered by deposits retained on assumed reinsurance	4,839	4,728
Total	**22,409**	**22,171**

If provisions are covered by deposits retained on assumed reinsurance, the interest is directly secured by an inflow of investment income generally guaranteed by the cedants. Consequently, for provisions for which at least the discount rate is guaranteed by the cedants, there is no interest-rate risk.

In life primary insurance, an implicit or explicit interest-rate guarantee is granted for the majority of contracts over their whole duration, based on a fixed interest rate applying at the time the contract is concluded. This exposes the insurance to an interest-guarantee risk. The discount rate used to calculate the provision for future policy benefits is identical with the guaranteed interest rate for the majority of contracts in our portfolios. An appropriate minimum return needs to be earned in the long term from the investment result (possibly also with assistance from the technical result) for the contractually guaranteed benefits. Given that the investments, as a rule, have a shorter duration than the insurance commitments, there is a reinvestment risk. As regards premiums yet to be received, the investment of these amounts involves a certain amount of risk. We counter these risks using our asset-liability management.

The current sustained period of low interest rates is a strain for life primary insurers whose portfolio includes classical guaranteed products. Our life primary insurers address the risks arising from such a phase of low interest rates by pursuing an investment strategy that is geared to the long term and also comprises derivative financial instruments. Furthermore, they take account of these special capital market conditions in their asset-liability management. The additional interest reserve that has already been built up is another tool for ensuring that the interest liabilities assumed are met during low-interest-rate periods, and it has a risk-mitigating effect.

In long-term health primary insurance, a discount rate is also used for calculating the provision for future policy benefits. However, this rate can generally be altered by way of premium adjustment. For short-term business, there is no direct interest-rate risk.

At ERGO, the discount rates relevant for the portfolio in calculating the provision for future policy benefits and the provision for outstanding claims are as follows:

Discount rates used for provisions – ERGO (gross)

		Life		Health		Total
€m	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year
Without discount rate	4,205	4,231	1,753	1,624	5,959	5,854
Discount rate ≤ 2.0%	7,252	6,805	2,304	2,142	9,556	8,947
2.0% < discount rate ≤ 3.0%	21,517	21,563	16,260	14,246	37,777	35,809
3.0% < discount rate ≤ 4.0%	30,109	30,989	15,144	14,612	45,253	45,601
4.0% < discount rate ≤ 5.0%	827	889	3,615	4,963	4,442	5,852
Discount rate > 5.0%	2	2	0	0	2	2
Total	**63,912**	**64,478**	**39,076**	**37,587**	**102,988**	**102,066**

Besides this, in German health primary insurance, discount rates of 2–3.5% are applied for calculating the provision for premium loadings and the provision for future premium reductions, which are both part of the provision for premium refunds and total €5,819m (5,729m). These discount rates can be altered in the event of a premium adjustment.

Other market risks are of particular importance to unit-linked life insurance policies, the lump-sum option in the case of deferred annuity policies and derivatives embedded in variable annuities.

For the unit-linked life insurance contracts in our portfolio, the investments are held for the benefit of life insurance policyholders who bear the investment risk, meaning that there is no direct market risk. Appropriate product design ensures that the necessary premium portions for payment of a guaranteed minimum benefit on occurrence of death are based on the current fund assets.

The lump-sum option in the case of deferred annuity policies gives policyholders the option of having their annuity paid out in a single payment at a fixed date. As a result, there is a potential risk of an unexpectedly large number of policyholders exercising their option at an interest-rate level markedly higher than the discount rate used for the annuity calculation. But there is no direct interest-rate sensitivity or market sensitivity, since the exercise of the option by the policyholder is determined to a crucial extent by individual factors and relates to the insurance components.

Some primary insurance and reinsurance contracts contain derivative components of variable annuities. These are measured separately from the underlying contract and their changes in value are recognised in the insurance-related investment result. The valuation of these embedded derivatives is sensitive to share prices, exchange rates, commodity prices and interest rates, but these sensitivities are nearly fully compensated for by the fact that such derivatives are for the most part directly matched by financial derivatives for hedging purposes.

For Munich Re, there could be a **liquidity risk** if the cash outflow for insurance claims payments and the costs related to the business were to exceed the cash inflow from premiums and investments. For our mainly long-term business, we therefore analyse the expected future balance from cash inflows due to premium payments and outflows for payment of insurance claims and benefits plus costs.

At the balance sheet date, this results in the expected future technical payment balances (including variable annuities) shown in the following table according to duration bands. As only the technical payment flows are considered, inflows from investment income and investments that become free are not included in the quantifications.

Expected future technical cash flow (gross)[1]

€m	31.12.2020	Prev. year
Up to one year	-1,048	-2,597
Over one year and up to five years	-9,039	-9,310
Over five years and up to ten years	-15,270	-15,835
Over ten years and up to 20 years	-32,360	-35,656
Over 20 years	-91,952	-97,453

1 Premiums less benefits guaranteed at the balance sheet date and costs (excluding unit-linked products).

With these numerical estimates, it should be borne in mind that this forward-looking data may involve considerable uncertainty.

40 Disclosures on risks from property-casualty insurance business

Of particular importance for property-casualty insurance contracts is the estimation risk with regard to the amount of the expected claims expenditure for future claims from current insurance contracts (premium risk) and for claims already incurred (reserve risk). There is an interest-rate risk for parts of the portfolio. Liquidity risk also has to be taken into account.

The degree of exposure to **premium risks** differs according to class of business and also between primary insurance and reinsurance. On the basis of the loss ratios and combined ratios of past years shown in the following table, conclusions can be drawn about the historical volatilities in the different classes of business and about possible interdependencies. The differences in volatility are due equally to fluctuations in claims expenditure and fluctuations in the respective market-price level for the covers granted.

Premiums, loss ratios and combined ratios by class of business

	2020	2019	2018	2017	2016
Gross premiums written in €m					
Reinsurance					
Liability	4,473	3,703	3,384	3,013	2,911
Accident	306	416	372	393	316
Motor	5,268	5,291	5,367	3,978	3,943
Marine, aviation, space	1,899	1,617	1,388	1,268	1,308
Fire	5,962	5,064	4,761	4,308	4,375
Engineering	1,565	1,453	1,315	1,311	1,438
Credit and surety	849	787	657	634	641
Other classes of business	4,292	3,760	3,192	2,938	2,895
ERGO	6,747	6,771	6,694	6,531	6,135
Loss ratio in %					
Reinsurance					
Liability	87.6	64.8	71.3	84.8	73.2
Accident	76.8	68.0	10.4	58.0	74.2
Motor	67.8	67.6	71.4	77.0	72.3
Marine, aviation, space	55.4	80.6	40.8	50.3	56.7
Fire	63.3	73.6	69.9	109.5	59.7
Engineering	44.5	40.6	48.5	60.1	48.3
Credit and surety	69.1	20.7	46.0	59.7	71.1
Other classes of business	105.8	71.6	69.2	71.0	55.1
ERGO	59.4	58.6	58.7	59.8	59.7
Combined ratio in %					
Reinsurance					
Liability	119.3	100.5	105.7	119.3	107.4
Accident	112.8	106.9	51.0	94.2	99.2
Motor	98.4	100.3	103.3	107.9	100.9
Marine, aviation, space	86.1	115.0	75.1	81.8	92.3
Fire	87.8	99.1	98.5	137.8	86.3
Engineering	88.6	90.1	95.1	107.8	93.1
Credit and surety	106.6	63.7	89.0	101.8	110.8
Other classes of business	138.5	106.0	107.4	105.9	90.3
ERGO	93.0	93.3	95.2	96.0	97.5

In the pricing of risks assumed in the accident, fire and marine lines of business, and also in sections of engineering reinsurance and ERGO, there is a high degree of sensitivity regarding the underlying assumptions about natural catastrophes. The following table therefore shows the combined ratios for property-casualty reinsurance including and excluding natural catastrophe losses.

Combined ratio in reinsurance for the last ten years[1]

%	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Including natural catastrophes[2]	105.6	100.2	99.4	114.1	95.7	89.7	92.7	92.1	91.0	113.8
Excluding natural catastrophes	101.6	90.2	92.6	92.1	90.2	88.8	89.4	87.4	83.3	84.4

1 In 2012, our segment reporting was modified and no longer has a consolidation column. The figures for the previous year have been adjusted accordingly.
2 The figure for 2011 is not adjusted for relief of 1.4 percentage points from economic risk transfer to the capital markets.

Major losses, by which we mean individual losses exceeding €10m, are of particular relevance for the volatility of property-casualty business in reinsurance. The analysis below shows that the volatility of the individual years in this loss category is mainly attributable to the respective intensity of natural catastrophe losses. As a rule, the other accumulation risks exhibit a distinctly less volatile pattern, although the coronavirus pandemic led to significantly higher major-loss expenditure of €3,066m in the financial year.

Large losses in reinsurance by calendar year (net)

€m	2020	2019	2018	2017	2016
Large losses	–4,689	–3,124	–2,152	–4,314	–1,542
Thereof losses from natural catastrophes	–906	–2,053	–1,256	–3,678	–929
Thereof other accumulation losses	–3,784	–1,071	–896	–636	–613

Further information on risks from large and accumulation losses can be found in the combined management report in the section on business performance, and in the risk report.

The provision for outstanding claims is subject to a **reserve risk**, i.e. the risk that actual claims settlement may be less than or exceed the amount reserved.

A particular sensitivity to reserve risks exists in the case of contracts with long run-off periods. This characteristic applies especially to casualty insurance, where liabilities may manifest themselves after a considerable latency period. Particularly with regard to asbestos insurance liabilities, we cover losses from policies taken out decades ago that manifest themselves after a latency period of as long as 30–50 years. In response, we have posted provisions for claims under long-cancelled general liability policies which provided coverage according to the legal environment applicable at that time.

Provisions for asbestos and environmental claims

	31.12.2020		Prev. year	
€m[1]	Gross	Net	Gross	Net
Asbestos	1,098	941	1,119	986
Environmental	384	314	336	276

1 The previous year's figures have been adjusted to eliminate currency translation effects.

The development of our claims reserves and the corresponding run-off results are shown under (22) Provision for outstanding claims.

Economically, an **interest-rate risk** derives from the need to earn a return on the investments covering the provision that is commensurate with the discount rate used in measuring the provision. In balance sheet terms, the interest-rate risk affects only those parts of the technical provisions that are discounted and for which an inflow of investment income from deposits retained is not secured from cedants in at least the same amount. For discounting technical provisions, we use the interest rates shown in the table below.

Discounted technical provisions by discount rate (gross)

	Reinsurance		ERGO		Total	
€m	31.12.2020	Prev. year	31.12.2020	Prev. year	31.12.2020	Prev. year
Discount rate ≤ 2.0%	44	62	617	432	662	494
2.0% < discount rate ≤ 3.0%	163	176	264	381	427	557
3.0% < discount rate ≤ 4.0%	47	52	372	369	419	421
4.0% < discount rate ≤ 5.0%	730	799	0	0	730	799
Discount rate > 5.0%	0	0	0	0	0	0
Total	**985**	**1,090**	**1,253**	**1,182**	**2,237**	**2,271**

The major part of the discounted provisions in reinsurance is for US workers' compensation business, for which the discount rates are governed by supervisory law and are determined prospectively per accident year. The discounting of the provisions in primary insurance is also largely governed by supervisory law.

For Munich Re, **liquidity risks** could arise if the cash outflow for insurance claims payments and the costs related to the business were to exceed the cash inflow from premiums and investments. The following table shows that in the past calendar years the liquidity situation in underwriting has always been positive. Besides this, we also have extensive, sufficiently liquid investments available to fulfil our liquidity obligations.

Payment flows and liquid funds in the individual calendar years (gross)

€m	2020	2019	2018	2017	2016
Premiums received	31,361	28,857	27,130	24,293	23,786
Claims payments for financial year	–5,321	–5,091	–5,901	–5,360	–5,882
Claims payments for previous years	–12,007	–9,846	–8,873	–6,675	–8,545
Costs	–9,667	–9,511	–9,234	–8,093	–7,719
Balance	**4,366**	**4,408**	**3,122**	**4,165**	**1,639**

Other information

41 Parent

The Group parent is Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München (Munich Reinsurance Company Joint-Stock Company in Munich), Königinstrasse 107, 80802 München.

Its registered seat is Munich, Germany (Commercial register number: HRB 42039, Registrar of Companies: Local Court [Amtsgericht] in Munich).

In addition to its function as a reinsurer, the parent also fulfils the function of holding company for the Group.

42 Related parties

Information on the remuneration of Board members and transactions with these persons can be found in the remuneration report in the combined management report, and under (45) Remuneration report. Transactions between Munich Reinsurance Company and subsidiaries that are to be deemed related parties have been eliminated in consolidation and are not disclosed in the Notes. Business relations with unconsolidated subsidiaries are of subordinate importance as a whole; this also applies to business relations with associates and joint ventures.

Munich Reinsurance Company has established a contractual trust agreement in the form of a two-way trust for its unfunded company pension obligations. The Munich Re pension scheme is considered a related party in accordance with IAS 24. Contributions to the pension scheme are recognised as expenses for defined contribution plans (see (25) Other provisions).

For transactions of related parties with Munich Reinsurance Company shares, please refer to (17) Equity.

43 Personnel expenses

The following personnel expenses are included in the operating expenses, in the expenses for claims and benefits (for claims adjustment) and in the investment result:

Breakdown of personnel expenses

€m	2020	Prev. year
Wages and salaries	-2,740	-2,901
Social security contributions and employee assistance	-514	-503
Expenses for employees' pensions	-260	-270
Total	**-3,513**	**-3,674**

44 Incentive plans

Mid-term incentive plans

In the financial years from 2009 to 2019, Munich Reinsurance Company set up mid-term incentive plans, each with a term of three years. Senior management in Munich are eligible for participation in these cash-settled remuneration plans. The participants receive performance share units (PSUs). In the fourth year after plan commencement, participants are entitled to a bonus payment dependent on the achievement of value-based performance targets and the increase in total shareholder return (TSR).

The value-based performance targets are set in the form of an average target to be achieved over the following three years of the plan and are allocated according to responsibilities.

The basis for the full and partial allocation of the PSUs is the first plan year.

The final number of PSUs is calculated by multiplying the number of PSUs at plan commencement by the percentage achievement of the performance target at plan termination. The number of PSUs may fluctuate between 0 and 1.5 times the initially allocated number. Payment is capped if the TSR doubles. The maximum amount payable is limited to 300%.

The mid-term incentive plan at the end of the reporting period is valued indirectly at the fair value of the liabilities. The fair value takes account of the value-based performance target and total shareholder return (TSR) during the performance period. To this end, the TSR index value observable in the market is updated with the current dividend yield of Munich Re shares at the termination date and discounted with appropriate market interest rates.

In the 2020 financial year, liabilities from the mid-term incentive plans decreased by €17m (+38m). The beneficiaries' entitlements amounted to €33m (71m) at the end of the reporting period.

Munich Re's mid-term incentive plans 2017–2019

	Incentive Plan 2017	Incentive Plan 2018	Incentive Plan 2019
Plan commencement	1.1.2017	1.1.2018	1.1.2019
Plan end	31.12.2019	31.12.2020	31.12.2021
Fair value 2020 for one right	€0.00	€709.92	€743.65
Number of rights (for 100% achievement of objectives) on 1 January 2017	0	0	0
Additions	31,268	0	0
Number of rights (for 100% achievement of objectives) on 31 December 2017	31,268	0	0
Number of rights (for 100% achievement of objectives) on 1 January 2018	31,268	0	0
Additions	0	27,872	0
Number of rights (for 100% achievement of objectives) on 31 December 2018	31,268	27,872	0
Number of rights (for 100% achievement of objectives) on 1 January 2019	31,268	27,872	0
Additions	0	0	26,651
Forfeited	27	104	0
Number of rights (for 100% achievement of objectives) on 31 December 2019	31,241	27,768	26,651
Number of rights (for 100% achievement of objectives) on 1 January 2020	31,241	27,768	26,651
Exercised	31,241	0	0
Forfeited	0	137	494
Number of rights (for 100% achievement of objectives) on 31 December 2020	0	27,631	26,157

Long-term incentive plans
Since 1 January 2020, the companies pertaining to the reinsurance field of business have set up long-term incentive plans. This remuneration component for senior management replaces the long-term remuneration plans previously in place in the respective companies, including the Munich Reinsurance Company Mid-Term Incentive Plan. Plans that are still active will end in accordance with the applicable plan conditions, or have been superseded. The standardised remuneration scheme behind these long-term incentive plans largely corresponds with that of the multi-year bonus of the members of the Board of Management, which is described in the remuneration report in the combined management report.

45 Remuneration report

The members of Munich Reinsurance Company's Board of Management received remuneration totalling €22.8m (23.8m); this includes compensation in the amount of €3.4m (3.3m) paid to a member of the Board by an affiliated company for services performed there. The total remuneration of Munich Reinsurance Company's Supervisory Board amounted to €3.1m (3.2m); included in this figure is €0.1m (0.2m) for membership of supervisory boards at other Group companies.

Payments to retired members of the Board of Management or their surviving dependants totalled €9.2m (12.4m).

Former members of the Board of Management did not accrue any further pension entitlements with an impact on personnel expenses. After deducting plan assets for existing pension commitments held by a separate entity (under a contractual trust agreement), there were no surplus pension provisions or provisions for comparable benefits for retired members of the Board of Management or their surviving dependants.

There are no pension commitments for former members of the Supervisory Board or their surviving dependants.

The members of the Supervisory Board and Board of Management did not receive any cash advances or loans in the year under review. For their service as employees of the Group, Supervisory Board members received remuneration in the amount of €1.2m (1.5m). The Board members hold insurance policies with companies belonging to Munich Re, and have small MEAG fund holdings. There were no other significant transactions between Board members and Munich Re.

All other disclosures on remuneration for Board members, the structure of the remuneration system, and the share ownership of the members of the Board of Management can be found in the remuneration report in the combined management report.

46 Number of staff

The number of staff at year-end totalled 18,636 (18,790) in Germany and 21,006 (20,872) in other countries.

Breakdown of number of staff

	31.12.2020	Prev. year
Reinsurance	12,659	12,362
ERGO	26,983	27,300
Total	**39,642**	**39,662**

47 Auditor's fees

For services rendered to the parent and consolidated subsidiaries by the Group auditor (Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft), the following fees were recognised as an expense in the financial year:

Breakdown of auditor's fees

€k	2020
Audit services	-10,029
Other assurance and appraisal services	-118
Tax consultancy services	0
Other services	-2,264
Total	**-12,411**

The auditor's fees mainly relate to the audits of the consolidated financial statements and the annual financial statements of Munich Reinsurance Company; to various audits of our subsidiaries' annual financial statements, including statutory extensions of the audit assignment (in particular, the audit of the solvency balance sheet); and to audit services agreed with the Audit Committee. In addition, the following were carried out: reviews of interim financial statements and project-related IT audits, and a contractual review of a service provider's internal control system.

Other assurance and appraisal services concern statutory, contractual or voluntary audit and consulting services, including the audit of the non-financial statement and the issuance of a comfort letter in 2020.

Other services essentially relate to quality assurance support in connection with the introduction of regulatory requirements or of new accounting standards, as well as process automation and data analytics; each service is based on solutions and concepts produced by us.

48 Contingent liabilities, other financial commitments

Munich Re enters into contingent liabilities in connection with its normal business operations. At the end of the reporting period, the obligations from guarantees were immaterial. The obligations from legal disputes totalled €30m (32m). There are other contingent liabilities amounting to €57m (32m).

Estimates and judgements are necessary for contingent liabilities where the likely impact cannot be clearly determined. This is the case, for example, with respect to contingent liabilities in legal disputes. Like the evaluation process for other provisions, the assessment is made by experts in the affected units on the basis of the best estimate. Contingent liabilities are stated unless the experts estimate that the possibility of an outflow of resources is remote.

ERGO companies have assumed unlimited liability for the sale of insurance products by insurance intermediaries acting exclusively on their behalf. In this respect, there is a risk of a claim being made by customers. In case of a claim, there is generally a possibility of recourse against the insurance intermediary or the latter's fidelity guarantee insurance carrier.

The application of fiscal regulations may yet be unresolved at the time of calculation of tax refund claims and tax liabilities. The calculation of tax items is based on the regulations most likely to be applied in each case. Regardless of this, the tax authorities may take a different view, which may give rise to additional tax liabilities.

In accordance with the German Insurance Supervision Act (VAG), all German life and health insurers of our Group are obliged to be members of a protection fund. For life insurers, the protection fund can levy special contributions of up to one per mille of total net technical provisions, in addition to a regular contribution of 0.2 per mille of total net technical provisions. For the health insurers, there is no pre-financing, but the fund may levy special contributions of up to two per mille of net technical provisions to fulfil its functions. This could give rise to a potential payment obligation of €164m (166m) at Group level. The functions and powers of the statutory protection fund for life insurance rest with Protektor Lebensversicherungs-AG, and those of the statutory protection fund for health insurance with Medicator AG.

Munich Re is a member of the German Nuclear Reactor Insurance Association (DKVG) and the Pharma Reinsurance Community. If another member of these pools is not able to meet their payment obligations, we may be held liable for a proportional share of their obligations. However, we consider the risk of such a liability arising to be remote.

Besides this, Munich Re has entered into various other financial obligations amounting to €836m (765m) for work and service contracts and €2,911m (2,845m) for investment obligations, of which €12m (13m) is from our investments in joint ventures. There were loan commitments amounting to €1,847m (1,720m) at the end of the reporting period. Many of these loan commitments, totalling €1,282m (849m), can be drawn down within one year; the other €356m (509m) between one and two years. These figures represent undiscounted nominal amounts. There are other financial commitments amounting to €8m (9m).

There are no other financial commitments of significance for the assessment of Munich Re's financial position. No contingent liabilities have been entered into for the benefit of Board members.

49 Significant restrictions

Regulatory, legal or contractual restrictions and protective rights of non-controlling interests may restrict the Group's ability to access or use assets, and settle liabilities.

The carrying amounts of Group assets with restrictions on title can be found in the Notes to the consolidated balance sheet – Assets. The restrictions primarily result from contractual agreements, including pledged securities deposits to collateralise payment obligations from insurance business, the collateralisation of derivative transactions with securities and cash collateral or of bank liabilities with non-financial assets.

Individual national regulations require that assets held to cover insurance liabilities be managed separately. Generally there are special supervisory regulations governing access to these assets and their use.

In addition, we are subject to supervisory requirements that may restrict dividend payments or other capital distributions, loans and advance payments within the Group.

Our subsidiary Munich American Reassurance Company reported a negative earned surplus in its local financial statements as at 31 December 2020 (Statutory Accounting Principles). For this reason, the company can only pay dividends or transfer capital to the parent company with the approval of the competent US regulatory authority.

50 Leases

Munich Re as lessee Please see (15) Other assets and (28) Other liabilities for information on rights of use and lease liabilities.

Short-term leases with terms shorter than 12 months (and no purchase option) and leases for which the underlying asset is of low value are not recognised. Instead they are recognised through profit or loss as an expense of €2m (10m).

Munich Re as lessor Operating leases mainly involve leased property.

Future minimum lease payments under operating leases

€m	31.12.2020	Prev. year
Up to one year	591	341
Over one year and up to five years	872	1,040
Over five years	627	765
Total	**2,090**	**2,145**

There were several finance leases for property at the end of the reporting period, which are listed in the following table:

Due dates

	31.12.2020			Prev. year		
€m	Gross investment	Interest element	Net investment	Gross investment	Interest element	Net investment
Minimum lease payments up to one year	1	0	0	1	0	0
Minimum lease payments of over one year and up to five years	2	1	1	2	1	1
Minimum lease payments of over five years	70	56	14	70	56	14
Total minimum lease payments	**72**	**57**	**16**	**73**	**57**	**16**
Unguaranteed residual values	41	31	10	41	32	10
Total	**114**	**88**	**26**	**114**	**88**	**26**

51 Events after the balance sheet date

The USA, especially the state of Texas, was affected by an extreme cold spell in February, which led to substantial frost damage in particular. As there is still a very high degree of uncertainty at this stage, precise claims forecasts are not yet possible. In consideration of the great uncertainty, Munich Re currently expects claims expenditure in the mid triple-digit million euro range.

52 Earnings per share

There were no diluting effects to be disclosed for the calculation of earnings per share either in the financial year or in the previous year. Earnings per share can potentially be diluted in future through the issue of shares or subscription rights from amounts authorised for increasing the share capital and from contingent capital.

Earnings per share

		2020	Prev. year
Consolidated result attributable to Munich Reinsurance Company equity holders	€m	1,211	2,724
Weighted average number of outstanding shares		140,285,225	143,638,536
Earnings per share	€	8.63	18.97

The retrospective adjustment of the previous year's figures did not result in a change to the earnings per share in the previous year (see Changes in accounting policies and other adjustments).

The number of outstanding shares decreased by 1,361,667 (4,336,780) over the course of the 2020 financial year, due to the share buy-back programme.

53 Proposal for appropriation of profit

Munich Reinsurance Company's net retained profits for 2020 according to its financial statements prepared on the basis of German GAAP accounting amounted to €1,631,560,651.72. The Board of Management will propose to shareholders at the Annual General Meeting that these net retained profits be used for payment of a dividend of €9.80 per dividend-bearing share, with the amount of €258,591,127.92 being appropriated to other revenue reserves.

List of shareholdings as at 31 December 2020 pursuant to Section 313(2) of the German Commercial Code (HGB)

The following disclosures relate to our aggregated directly and indirectly held shareholdings (pursuant to Section 16(2) and (4) of the German Stock Corporation Act – AktG) in entities included in consolidation pursuant to Section 315a of the German Commercial Code, and in participating interests as defined in Section 271(1) of the German Commercial Code.

Company and registered seat	% share of capital
Consolidated subsidiaries	
13th & F Associates Limited Partnership, Washington, D.C.	100.0000
1440 New York Ave. Associates LP, Dover, Delaware	100.0000
330 Madison Associates LLC, Dover, Delaware	100.0000
330 Madison Holdings LLC, Dover, Delaware	100.0000
40 Courcelles SAS, Paris	100.0000
Adelfa Servicios a Instalaciones Fotovoltaicas S.L., Santa Cruz de Tenerife	100.0000
AEVG 2004 GmbH i. L., Frankfurt am Main[4]	0.0000
AGRA Gesellschaft für landwirtschaftliche Entwicklung und Beteiligung mbH, Berlin	100.0000
ALICE GmbH, Düsseldorf	100.0000
ALLYSCA Assistance GmbH, Munich	100.0000
American Alternative Insurance Corporation, Wilmington, Delaware	100.0000
American Digital Title Insurance Company, Brighton, Colorado	100.0000
American Family Home Insurance Company, Jacksonville, Florida	100.0000
American Modern Home Insurance Company, Amelia, Ohio	100.0000
American Modern Home Service Company, Amelia, Ohio	100.0000
American Modern Insurance Company of Florida Inc., Jacksonville, Florida	100.0000
American Modern Insurance Group Inc., Amelia, Ohio	100.0000
American Modern Lloyds Insurance Company, Dallas, Texas	100.0000
American Modern Property & Casualty Insurance Company, Amelia, Ohio	100.0000
American Modern Select Insurance Company, Amelia, Ohio	100.0000
American Southern Home Insurance Company, Jacksonville, Florida	100.0000
American Western Home Insurance Company, Oklahoma City, Oklahoma	100.0000
Atena Uslugi Informatyczne i Finansowe S.A., Sopot	100.0000
ATU Landbau GmbH & Co. KG, Munich	94.9000
Bagmoor Holdings Limited, London	100.0000
Bagmoor Wind Limited, London	100.0000
Bell & Clements (Bermuda) Ltd., Hamilton, Bermuda	100.0000
Bell & Clements (London) Ltd., London	100.0000
Bell & Clements (USA) Inc., Wilmington, Delaware	100.0000
Bell & Clements Inc., Reston, Virginia	100.0000
Bell & Clements Ltd., London	100.0000
Bridgeway Insurance Company, Dover, Delaware	100.0000
Cannock B.V., Leidschendam	100.0000
Cannock Chase Holding B.V., Amsterdam	100.0000
Cannock Connect Center B.V., Brouwershaven	100.0000

Company and registered seat	% share of capital
Cannock Outsourcing B.V., The Hague	100.0000
Cannock PurChase B.V., The Hague	100.0000
Cannock-EDR Holding B.V., Amsterdam	100.0000
Ceres Demetra GmbH, Munich	100.0000
Chinook Silva LLC, Wilmington, Delaware	100.0000
Comino Beteiligungen GmbH, Grünwald	100.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2018-17, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2018-24, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2018-31, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-05, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-10, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-40, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-47, Wilmington, Delaware	95.0000
Corion Pty Ltd, Sydney	100.0000
Cornwall Power (Polmaugan) Limited, London	100.0000
Countryside Renewables (Forest Heath) Limited, London	100.0000
D.A.S. Defensa del Automovilista y de Siniestros – Internacional S.A. de Seguros y Reaseguros, Barcelona	100.0000
D.A.S. Jogvédelmi Biztosíto Részvénytársaság, Budapest	100.0000
D.A.S. Rechtsschutz Aktiengesellschaft, Vienna	100.0000
D.A.S. Société anonyme belge d'assurances de Protection Juridique, Brussels	100.0000
D.A.S. Towarzystwo Ubezpieczen Ochrony Prawnej S.A., Warsaw	100.0000
Daman Health Insurance – Qatar LLC, Doha	100.0000
Dansk Demetra ApS, Frederiksberg C	100.0000
DAS Holding N.V., Amsterdam	51.0000
DAS Law Limited, Bristol	100.0000
DAS Legal Expenses Insurance Co., Ltd., Seoul	100.0000
DAS Legal Expenses Insurance Company Limited, Bristol	100.0000
DAS Legal Finance B.V., Amsterdam	100.0000
DAS MEDICAL ASSIST LIMITED, Bristol	100.0000
DAS Nederlandse Rechtsbijstand Verzekeringmaatschappij N.V., Amsterdam	100.0000
DAS Services Limited, Bristol	100.0000
DAS UK Holdings Limited, Bristol	100.0000
Digital Advantage Insurance Company, Warwick, Rhode Island	100.0000
Digital Affect Insurance Company, New York City, New York	100.0000
Digital Edge Insurance Company, Dover, Delaware	100.0000
DKV Belgium S.A., Brussels	100.0000

Company and registered seat	% share of capital
DKV Deutsche Krankenversicherung Aktiengesellschaft, Cologne	100.0000
DKV Pflegedienste & Residenzen GmbH, Cologne	100.0000
DKV Seguros y Reaseguros S.A. Española, Saragossa	100.0000
DMS QIAIF Platform ICAV (FIVE LABS Subfonds), Dublin	100.0000
DWS Concept SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I4D), Luxembourg	100.0000
DWS Concept SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I6D o.N.), Luxembourg	100.0000
DWS Concept SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I7D o.N.), Luxembourg	100.0000
DWS Concept SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I8D o.N.), Luxembourg	100.0000
E&S Claims Management Inc., Reston, Virginia	100.0000
EIG Co., Wilmington, Delaware	100.0000
ERGO ASIGURARI DE VIATA S.A., Bucharest	100.0000
ERGO ASIGURARI S.A., Bucharest	100.0000
ERGO Austria International AG, Vienna	100.0000
ERGO Beratung und Vertrieb AG, Düsseldorf	100.0000
ERGO Deutschland AG, Düsseldorf	100.0000
ERGO Digital Ventures AG, Düsseldorf	100.0000
ERGO DIREKT Versicherung AG, Fürth	100.0000
ERGO Elfte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
ERGO Fund I LP, Dover, Delaware[1]	100.0000
ERGO Generales Seguros y Reaseguros S.A., Madrid	100.0000
ERGO Group AG, Düsseldorf	100.0000
ERGO Grubu Holding A.Ş., Istanbul	100.0000
ERGO Grundstücksverwaltung GbR, Düsseldorf[1]	100.0000
ERGO Insurance Company Single Member S.A., Athens	100.0000
ERGO Insurance N.V., Brussels	100.0000
ERGO Insurance Pte. Ltd., Singapore	100.0000
ERGO Insurance SE, Tallinn	100.0000
ERGO International Aktiengesellschaft, Düsseldorf	100.0000
ERGO International Services GmbH, Düsseldorf	100.0000
ERGO Invest SIA, Riga	100.0000
ERGO Krankenversicherung AG, Fürth	100.0000
ERGO Lebensversicherung Aktiengesellschaft, Hamburg	100.0000
ERGO Life Insurance SE, Vilnius	100.0000
ERGO Life S.A., Grevenmacher	100.0000
ERGO Neunte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
ERGO Partners N.V., Brussels	100.0000
ERGO Pensionsfonds Aktiengesellschaft, Düsseldorf	100.0000
ERGO Pensionskasse AG, Düsseldorf	100.0000
ERGO pojišťovna, a.s., Prague	100.0000
ERGO Private Capital Dritte GmbH & Co. KG, Düsseldorf	100.0000
ERGO Private Capital Gesundheit GmbH, Düsseldorf	100.0000
ERGO Private Capital Komposit GmbH & Co. KG, Düsseldorf	100.0000
ERGO Private Capital Leben GmbH & Co. KG, Düsseldorf	100.0000
ERGO Private Capital Vierte GmbH & Co. KG, Düsseldorf	100.0000
ERGO Private Capital Zweite GmbH & Co. KG, Düsseldorf	100.0000
ERGO Reiseversicherung AG, Munich	100.0000
ERGO Sechzehnte Beteiligungs-AG, Munich	100.0000
ERGO Technology & Services Management AG, Düsseldorf	100.0000
ERGO Versicherung Aktiengesellschaft, Düsseldorf	100.0000
ERGO Versicherung Aktiengesellschaft, Vienna	100.0000
ERGO Vida Seguros y Reaseguros S.A., Saragossa	100.0000
ERGO Vorsorge Lebensversicherung AG, Düsseldorf	100.0000
ERV Evropská pojišťovna, a.s., Prague	90.0000

Company and registered seat	% share of capital
Euro-Center Holding SE, Prague	83.3332
Europaeiske Rejseforsikring A/S, Copenhagen	100.0000
Everything Legal Ltd., Bristol	100.0000
Fairance GmbH, Düsseldorf	100.0000
Faunus Silva LLC, Wilmington, Delaware	100.0000
Flexitel Telefonservice GmbH, Berlin	100.0000
Forst Ebnath AG, Ebnath	100.0000
FOTOUNO S.r.l., Brixen	100.0000
FOTOWATIO ITALIA GALATINA S.r.l., Brixen	100.0000
FREE MOUNTAIN SYSTEMS S.L., Madrid	100.0000
FS Louisiana I LLC, Wilmington, Delaware	100.0000
FS Louisiana II LLC, Wilmington, Delaware	100.0000
FS San Augustine LLC, Wilmington, Delaware	100.0000
Fundo Invest Exclusivo referenciado di Munich Re Brasil, São Paulo[4]	99.7900
FW Żary Sp.z.o.o., Warsaw	100.0000
Gaucheret S.A., Ixelles	100.0000
Global Standards LLC, Dover, Delaware	100.0000
Globality S.A., Munsbach	100.0000
Great Lakes Insurance SE, Munich	100.0000
Groves, John & Westrup Limited, Liverpool	100.0000
Habiriscos – Investimentos Imobiliarios, S.A., Lisbon	100.0000
Hartford Steam Boiler (M) SDN BHD, Kuala Lumpur	100.0000
Hartford Steam Boiler (Singapore) Pte. Ltd., Singapore	100.0000
Hartford Steam Boiler International GmbH, Rheine	100.0000
Hartford Steam Boiler Ireland Limited, Dublin	100.0000
HMV GFKL Beteiligungs GmbH, Düsseldorf	100.0000
HSB Brasil Servicos de Engenharia e Inspecao Ltda, São Paulo	100.0000
HSB Engineering Finance Corporation, Dover, Delaware	100.0000
HSB Engineering Insurance Limited, London	100.0000
HSB Engineering Insurance Services Limited, London	100.0000
HSB Fund I LP, Dover, Delaware[1]	100.0000
HSB Group Inc., Dover, Delaware	100.0000
HSB International (India) Private Limited, Vadodara	100.0000
HSB Japan K.K., Minato-KU, Tokyo	100.0000
HSB Secure Services Inc., Hartford, Connecticut	100.0000
HSB Solomon Associates Canada Ltd., Saint John, New Brunswick	100.0000
HSB Solomon Associates LLC, Dover, Delaware	100.0000
HSB Specialty Insurance Company, Hartford, Connecticut	100.0000
HSB Technical Consulting & Service (Shanghai) Co. Ltd., Shanghai	100.0000
Ibero Property Portugal – Investimentos Imobiliarios S.A., Lisbon	100.0000
Ibero Property Trust S.A., Madrid	100.0000
IDEENKAPITAL Financial Engineering GmbH, Düsseldorf	100.0000
IDEENKAPITAL Financial Service GmbH i. L., Düsseldorf	100.0000
IDEENKAPITAL GmbH, Düsseldorf	100.0000
IDEENKAPITAL Media Finance GmbH, Düsseldorf	50.1000
IDEENKAPITAL Metropolen Europa GmbH & Co. KG, Düsseldorf	72.3477
iii, Munich[4]	100.0000
IK Einkauf Objekt Eins GmbH & Co. KG, Düsseldorf	100.0000
IK Einkauf Objektmanagement GmbH, Düsseldorf	100.0000
IK Einkaufsmärkte Deutschland GmbH & Co. KG, Düsseldorf	52.0387
IK Premium Fonds GmbH & Co. KG, Düsseldorf	100.0000
IK Premium Fonds zwei GmbH & Co. KG, Düsseldorf	100.0000
IKFE Properties I AG, Zurich	63.5708

Company and registered seat	% share of capital
Imofloresmira – Investimentos Imobiliarios S.A., Lisbon	100.0000
ITERGO Informationstechnologie GmbH, Düsseldorf	100.0000
ITERGO Service GmbH, Düsseldorf	100.0000
JSC "ERV Travel Insurance", Moscow	100.0000
K & P Pflegezentrum Uelzen IMMAC Renditefonds GmbH & Co. KG, Düsseldorf	84.8445
KA Köln.Assekuranz Agentur GmbH, Cologne	100.0000
Kapdom-Invest GmbH, Moscow	100.0000
KS SPV 23 Limited, London	100.0000
LEGIAL AG, Munich	100.0000
Lietuva Demetra GmbH, Munich	100.0000
Lloyds Modern Corporation, Dallas, Texas	100.0000
Longial GmbH, Düsseldorf	100.0000
Lynt Farm Solar Limited, London	100.0000
MAGAZ FOTOVOLTAICA S.L.U., Alcobendas	100.0000
Mandaat B.V., Druten	100.0000
Marina Salud S.A., Alicante	65.0000
Marina Sp.z.o.o., Sopot	100.0000
MEAG Anglo Celtic Fund, Munich[4]	100.0000
MEAG ATLAS, Munich[4]	100.0000
MEAG Benedict, Munich[4]	100.0000
MEAG Cash Management GmbH, Munich	100.0000
MEAG EDK Quantum, Munich[4]	100.0000
MEAG EDL CurryGov, Munich[4]	100.0000
MEAG EDS AGIL, Munich[4]	100.0000
MEAG ERGO Belgium Equities, Munich[4]	100.0000
MEAG ESUS 1, Munich[4]	100.0000
MEAG EUR Global 1, Munich[4]	100.0000
MEAG Euro 1, Munich[4]	100.0000
MEAG Euro 2, Munich[4]	100.0000
MEAG EURO-FONDS, Munich[4]	100.0000
MEAG European Prime Opportunities, Munich[4]	56.7903
MEAG Eurostar, Munich[4]	100.0000
MEAG EURO-Yield, Munich[4]	100.0000
MEAG FlexConcept – Basis, Luxembourg[4]	100.0000
MEAG FlexConcept – Eurobond, Luxembourg[4]	100.0000
MEAG FlexConcept – Wachstum, Luxembourg[4]	100.0000
MEAG GBP Global-STAR, Munich[4]	100.0000
MEAG German Prime Opportunities (GPO), Munich[4]	100.0000
MEAG HBG 1, Munich[4]	100.0000
MEAG HM Sach Rent 1, Munich[4]	100.0000
MEAG HMR 1, Munich[4]	100.0000
MEAG HMR 2, Munich[4]	100.0000
MEAG Hyperion Fund, Munich[4]	100.0000
MEAG IREN, Munich[4]	100.0000
MEAG Janus, Munich[4]	100.0000
MEAG Kapital 2, Munich[4]	100.0000
MEAG Kapital 5, Munich[4]	100.0000
MEAG Kubus 1, Munich[4]	100.0000
MEAG Lambda EUR EM Local, Grünwald[4]	100.0000
MEAG Lambda EUR, Grünwald[4]	100.0000
MEAG Lambda GBP, Grünwald[4]	100.0000
MEAG Lambda USD, Grünwald[4]	100.0000
MEAG Multi Life, Munich[4]	100.0000
MEAG Multi Sach 1, Munich[4]	100.0000
MEAG MUNICH ERGO AssetManagement GmbH, Munich	100.0000
MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH, Munich	100.0000
MEAG Munich Re Placement, Grünwald[4]	100.0000
MEAG New York Corporation, Dover, Delaware	100.0000
MEAG PEGASUS, Munich[4]	100.0000
MEAG Pension Invest, Munich[4]	100.0000

Company and registered seat	% share of capital
MEAG Pensionskasse Nord, Munich[4]	100.0000
MEAG Pensionskasse West, Munich[4]	100.0000
MEAG PREMIUM, Munich[4]	100.0000
MEAG Prof III Beteiligungsgesellschaft mbH, Munich	100.0000
MEAG Property Fund I, Munich[4]	100.0000
MEAG Property Fund III, Munich[4]	100.0000
MEAG RenditePlus, Munich[4]	100.0000
MEAG REVO, Munich[4]	100.0000
MEAG US Fonds, Munich[4]	100.0000
MEAG Venus, Munich[4]	100.0000
MEAG Vidas Rent 3, Munich[4]	100.0000
MEAG VISION, Munich[4]	100.0000
MEAG VLA, Munich[4]	100.0000
MedNet Holding GmbH, Munich	100.0000
Merkur Grundstücks- und Beteiligungs-Gesellschaft mit beschränkter Haftung, Düsseldorf	100.0000
Meshify Inc., Dover, Delaware	100.0000
MFI Munich Finance and Investment Holding Ltd., Ta' Xbiex	100.0000
MFI Munich Finance and Investment Ltd., Ta' Xbiex	100.0000
Midland-Guardian Co., Amelia, Ohio	100.0000
Midwest Enterprises Inc., Tallahassee, Florida	100.0000
MR Bazos LP, Dover, Delaware	100.0000
MR Beteiligungen 1. GmbH, Munich[3]	100.0000
MR Beteiligungen 2. EUR AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen 2. GmbH, Munich	100.0000
MR Beteiligungen 3. EUR AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen 17. GmbH, Munich	100.0000
MR Beteiligungen 18. GmbH & Co. 2. Real Estate KG, Grünwald[2]	100.0000
MR Beteiligungen 18. GmbH & Co. 3. Real Estate KG, Grünwald[2]	100.0000
MR Beteiligungen 18. GmbH & Co. 4. Real Estate KG, Grünwald[2]	100.0000
MR Beteiligungen 18. GmbH & Co. Immobilien KG, Grünwald[2]	100.0000
MR Beteiligungen 18. GmbH & Co. Real Estate KG, Grünwald[2]	100.0000
MR Beteiligungen 19. GmbH, Munich	100.0000
MR Beteiligungen EUR AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen GBP AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen UK AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen USD AG & Co. KG, Grünwald[2]	100.0000
MR Debt Finance GmbH, Munich	100.0000
MR Electra LP, Dover, Delaware	100.0000
MR ERGO Beteiligungen GmbH, Grünwald	100.0000
MR Gotham LP, Dover, Delaware	100.0000
MR Infrastructure Investment GmbH, Munich[3]	100.0000
MR Investment Inc., Dover, Delaware	100.0000
MR Jordan LP, Dover, Delaware	100.0000
MR Olivia LP, Dover, Delaware	100.0000
MR RENT UK Investment Limited, London	100.0000
MR RENT-Investment GmbH, Munich[3]	100.0000
MR Solar GmbH & Co. KG, Düsseldorf	100.0000
MR SOLAR SAS DER WELIVIT SOLAR ITALIA S.r.l., Bolzano	100.0000
MRSG UK Services Limited, London	100.0000
Munich American Life Reinsurance Company, Norcross, Georgia	100.0000
Munich American Reassurance Company, Norcross, Georgia	100.0000
Munich Health Alpha GmbH, Munich[3]	100.0000
Munich Health Daman Holding Ltd., Abu Dhabi	51.0000
Munich Health Holding AG, Munich[3]	100.0000

Company and registered seat	% share of capital
Munich Holdings Ltd., Toronto, Ontario	100.0000
Munich Holdings of Australasia Pty Ltd, Sydney	100.0000
Munich Life Holding Corporation, Dover, Delaware	100.0000
Munich Life Management Corporation Ltd., Toronto, Ontario	100.0000
Munich Re America Corporation, Dover, Delaware	100.0000
Munich Re America Services Inc., Wilmington, Delaware	100.0000
Munich Re Automation Solutions Limited, Dublin	100.0000
Munich Re Capital Limited, London	100.0000
Munich Re CVC Investment Corp., Dover, Delaware	100.0000
Munich Re Digital Partners US Holding Corporation, Dover, Delaware	100.0000
Munich Re do Brasil Resseguradora SA, São Paulo	100.0000
Munich Re Fund I LP, Dover, Delaware[1]	100.0000
Munich Re Innovation Systems Inc., Toronto, Ontario	100.0000
Munich Re Life Insurance Company of Vermont, Burlington, Vermont	100.0000
Munich Re New Ventures Inc., Toronto, Ontario	100.0000
Munich Re of Bermuda Ltd., Hamilton, Bermuda	100.0000
Munich Re of Malta Holding Limited, Ta' Xbiex	100.0000
Munich Re of Malta p.l.c., Ta' Xbiex	100.0000
Munich Re PCC Limited, Ta' Xbiex	100.0000
Munich Re Reserve Risk Financing Inc., Dover, Delaware	100.0000
Munich Re Specialty Group Ltd., London	100.0000
Munich Re Specialty Group N.A. Inc., Wilmington, Delaware	100.0000
Munich Re Syndicate Labuan Limited, Labuan	100.0000
Munich Re Syndicate Limited, London	100.0000
Munich Re Syndicate Middle East Ltd., Dubai	100.0000
Munich Re Syndicate Singapore Ltd., Singapore	100.0000
Munich Re Trading LLC, Dover, Delaware	100.0000
Munich Re UK Services Limited, London	100.0000
Munich Re US Life Corporation, Norcross, Georgia	100.0000
Munich Re Ventures Inc., Dover, Delaware	100.0000
Munich Re Ventures LLC, Dover, Delaware	100.0000
Munich Re Weather & Commodity Risk Holding Inc., Dover, Delaware	100.0000
Munich Reinsurance America Inc., Wilmington, Delaware	100.0000
Munich Reinsurance Company of Africa Ltd, Johannesburg	100.0000
Munich Reinsurance Company of Australasia Ltd, Sydney	100.0000
Munich Reinsurance Company of Canada, Toronto, Ontario	100.0000
Munich-American Holding Corporation, Wilmington, Delaware	100.0000
MunichFinancialGroup GmbH, Munich	100.0000
New Reinsurance Company Ltd., Zurich	100.0000
nexible Versicherung AG, Nuremberg	100.0000
NMU (Specialty) Ltd., Manchester	100.0000
OIK Mediclin, Wiesbaden[4]	70.7073
Pan Estates LLC, Wilmington, Delaware	100.0000
Parachute Digital Solutions Inc., Wilmington, Delaware	100.0000
Parachute Solutions Numériques Inc., Toronto, Ontario	100.0000
Pegasos Holding GmbH, Munich	100.0000
Picus Silva Inc., Wilmington, Delaware	100.0000
Prosper Pass-Thru Trust I Series 2018-1, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2018-2, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2019-01, Wilmington, Delaware	95.0000

Company and registered seat	% share of capital
Prosper Pass-Thru Trust I Series 2019-02, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2019-03, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2019-04, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2019-05, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2019-06, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2020-01, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2020-02, Wilmington, Delaware	95.0000
PS Louisiana I LLC, Wilmington, Delaware	100.0000
PS Louisiana II LLC, Wilmington, Delaware	100.0000
Relayr GmbH, Pullach i. Isartal	100.0000
Relayr Inc., Dover, Delaware	100.0000
Relayr Limited, Watford	100.0000
Relayr Sp. Z o.o., Katowice	100.0000
Renaissance Hotel Realbesitz GmbH, Vienna	60.0000
Roanoke Insurance Group Inc., Schaumburg, Illinois	100.0000
Roanoke International Brokers Limited, London	100.0000
Scout Moor Group Limited, London	100.0000
Scout Moor Holdings (No. 1) Limited, London	100.0000
Scout Moor Holdings (No. 2) Limited, London	100.0000
Scout Moor Wind Farm Limited, London	100.0000
Silvanus Vermögensverwaltungsges. mbH, Munich[3]	100.0000
Solarpark Fusion 3 GmbH, Düsseldorf	100.0000
Solomon Associates Limited, Farnborough	100.0000
Sopockie Towarzystwo Ubezpieczen Ergo Hestia Spolka Akcyjna, Sopot	100.0000
Sopockie Towarzystwo Ubezpieczen na Zycie Ergo Hestia Spolka Akcyjna, Sopot	100.0000
Specialty Insurance Services Corp., Amelia, Ohio	100.0000
Sun Energy & Partners S.r.l., Brixen	100.0000
TEDA a.s., Bratislava	100.0000
Temple Insurance Company, Toronto, Ontario	100.0000
The Atlas Insurance Agency Inc., Amelia, Ohio	100.0000
The Boiler Inspection and Insurance Company of Canada, Toronto, Ontario	100.0000
The Hartford Steam Boiler Inspection and Insurance Company of Connecticut, Hartford, Connecticut	100.0000
The Hartford Steam Boiler Inspection and Insurance Company, Hartford, Connecticut	100.0000
The Midland Company, Amelia, Ohio	100.0000
The Polytechnic Club Inc., Hartford, Connecticut	100.0000
The Princeton Excess and Surplus Lines Insurance Company, Wilmington, Delaware	100.0000
THEC 2019 Zrt. "v.a.", Budapest	100.0000
Tir Mostyn and Foel Goch Limited, London	100.0000
UAB Agra Aurata, Vilnius	100.0000
UAB Agra Corp., Vilnius	100.0000
UAB Agra Optima, Vilnius	100.0000
UAB Agrofondas, Vilnius	100.0000
UAB Agrolaukai, Vilnius	100.0000
UAB Agrora, Vilnius	100.0000
UAB Agrovalda, Vilnius	100.0000
UAB Agrovesta, Vilnius	100.0000
UAB G.Q.F., Vilnius	100.0000
UAB Lila Holdingas, Vilnius	100.0000
UAB Sietuve, Vilnius	100.0000
UAB Terra Culta, Vilnius	100.0000
UAB Ukelis, Vilnius	100.0000

Company and registered seat	% share of capital
UAB Vasaros Brizas, Vilnius	100.0000
UAB VL Investment Vilnius 1, Vilnius	100.0000
UAB VL Investment Vilnius 2, Vilnius	100.0000
UAB VL Investment Vilnius 3, Vilnius	100.0000
UAB VL Investment Vilnius 4, Vilnius	100.0000
UAB VL Investment Vilnius 5, Vilnius	100.0000
UAB VL Investment Vilnius 6, Vilnius	100.0000
UAB VL Investment Vilnius 7, Vilnius	100.0000
UAB VL Investment Vilnius 8, Vilnius	100.0000
UAB VL Investment Vilnius 9, Vilnius	100.0000
UAB VL Investment Vilnius 10, Vilnius	100.0000
UAB VL Investment Vilnius, Vilnius	100.0000
UK Wind Holdings Ltd., London	100.0000
Unión Médica La Fuencisla S.A., Compañía de Seguros, Saragossa	100.0000
US PROPERTIES VA GmbH & Co. KG i. L., Düsseldorf[4]	46.0939
VHDK Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
VICTORIA Asien Immobilienbeteiligungs GmbH & Co. KG, Munich	100.0000
VICTORIA Italy Property GmbH, Düsseldorf	100.0000
Victoria Lebensversicherung Aktiengesellschaft, Düsseldorf	100.0000
Victoria US Property Investment GmbH, Düsseldorf	100.0000
VICTORIA Vierte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
Victoria Vierter Bauabschnitt GmbH & Co. KG, Düsseldorf	100.0000
Vorsorge Service GmbH, Düsseldorf	100.0000
welivit GmbH, Düsseldorf	100.0000
welivit Solarfonds GmbH & Co. KG, Düsseldorf	100.0000
welivit Solarfonds S.a.s. di welivit Solar Italia S.r.l., Bolzano	100.0000
WFB Stockholm Management AB, Stockholm	100.0000
Willow Series Holdings LLC Series C, Wilmington, Delaware	100.0000
Wind Farm Jenasen AB, Hässleholm	100.0000
Wind Farms Götaland Svealand AB, Hässleholm	100.0000
Windpark MR-B GmbH & Co. KG, Bremen[2]	100.0000
Windpark MR-D GmbH & Co. KG, Bremen[2]	100.0000
Windpark MR-N GmbH & Co. KG, Bremen[2]	100.0000
Windpark MR-S GmbH & Co. KG, Bremen[2]	100.0000
Windpark MR-T GmbH & Co. KG, Bremen[2]	100.0000
wse Solarpark Spanien 1 GmbH & Co. KG, Düsseldorf	75.1243
Unconsolidated subsidiaries	
Aleama 150015 S.L., Valencia	100.0000
ANOVA GmbH, Rostock	100.0000
Arridabra 130013 S.L., Valencia	100.0000
ARTES Assekuranzservice GmbH, Düsseldorf	100.0000
Badozoc 1001 S.L., Valencia	100.0000
Bank Austria Creditanstalt Versicherungsdienst GmbH, Vienna	100.0000
Baqueda 7007 S.L., Valencia	100.0000
Bobasbe 6006 S.L., Valencia	100.0000
Botedazo 8008 S.L., Valencia	100.0000
Callopio 5005 S.L., Valencia	100.0000
Camcichu 9009 S.L., Valencia	100.0000
Cannock Factoring B.V., Rotterdam	100.0000
Cannock Incasso Rotterdam B.V., Rotterdam	100.0000
Caracuel Solar Catorce S.L., Valencia	100.0000
Caracuel Solar Cinco S.L., Valencia	100.0000
Caracuel Solar Cuatro S.L., Valencia	100.0000
Caracuel Solar Dieciocho S.L., Valencia	100.0000
Caracuel Solar Dieciseis S.L., Valencia	100.0000

Company and registered seat	% share of capital
Caracuel Solar Diecisiete S.L., Valencia	100.0000
Caracuel Solar Diez S.L., Valencia	100.0000
Caracuel Solar Doce S.L., Valencia	100.0000
Caracuel Solar Dos S.L., Valencia	100.0000
Caracuel Solar Nueve S.L., Valencia	100.0000
Caracuel Solar Ocho S.L., Valencia	100.0000
Caracuel Solar Once S.L., Valencia	100.0000
Caracuel Solar Quince S.L., Valencia	100.0000
Caracuel Solar Seis S.L., Valencia	100.0000
Caracuel Solar Siete S.L., Valencia	100.0000
Caracuel Solar Trece S.L., Valencia	100.0000
Caracuel Solar Tres S.L., Valencia	100.0000
Caracuel Solar Uno S.L., Valencia	100.0000
Centrum Pomocy Osobom Poszkodowanym Sp.z.o.o., Gdańsk	100.0000
Copper Leaf Research, Eaton Rapids, Michigan	100.0000
Cotatrillo 100010 S.L., Valencia	100.0000
D.A.S. Prawo i Finanse Sp.z.o.o., Warsaw	100.0000
D.A.S., Tomasz Niedzinski Kancelaria Prawna Spolka komandytowa, Warsaw	95.0000
DAS Incasso Arnhem B.V., Elst	100.0000
DAS Legal Protection Inc., Toronto, Ontario	100.0000
DAS Legal Services B.V., Amsterdam	100.0000
DAS Lex Assistance S.L., L'Hospitalet de Llobregat	100.0000
DEAX Õigusbüroo OÜ, Tallinn	100.0000
Digital Partners Claims Administrators Inc., Columbus, Ohio	100.0000
DKV Beteiligungs- und Vermögensverwaltungs GmbH & Co. KG, Cologne	100.0000
DKV Erste Beteiligungsgesellschaft mbH, Cologne	100.0000
DKV Servicios S.A., Saragossa	100.0000
DKV-Residenz am Tibusplatz gGmbH, Münster	100.0000
DKV-Residenz in der Contrescarpe GmbH, Bremen	100.0000
DRA Debt Recovery Agency B.V., The Hague	100.0000
Economic Data Resources B.V., The Hague	100.0000
ERGO (China) Management Company Limited, Beijing	100.0000
ERGO Alpha GmbH, Düsseldorf	100.0000
ERGO Digital IT GmbH, Berlin	100.0000
ERGO Direkt AG, Fürth	100.0000
ERGO Fund Golden Aging, Brussels[4]	100.0000
ERGO Gourmet GmbH, Düsseldorf	100.0000
ERGO Infrastructure Investment Gesundheit GmbH, Düsseldorf	100.0000
ERGO Infrastructure Investment Komposit GmbH, Düsseldorf	100.0000
ERGO Infrastructure Investment Leben GmbH, Düsseldorf	100.0000
ERGO Infrastructure Investment Pensionskasse GmbH, Düsseldorf	100.0000
ERGO Infrastructure Investment Victoria Leben GmbH, Düsseldorf	100.0000
ERGO Innovation Solutions GmbH, Düsseldorf	100.0000
ERGO Leben Asien Verwaltungs GmbH, Munich	100.0000
ERGO Mobility Solutions GmbH, Düsseldorf	100.0000
ERGO Private Capital GmbH, Düsseldorf	100.0000
ERGO Private Capital Vorsorge GmbH, Düsseldorf	100.0000
ERGO PRO S.r.l., Verona	100.0000
ERGO Pro, spol.s.r.o., Prague	100.0000
ERGO Rechtsschutz Leistungs-GmbH, Munich	100.0000
ERGO Travel Insurance Services Ltd., London	100.0000
ERGO UK SPECIALTY LIMITED, London	100.0000
ERGO Versicherungs- und Finanzierungs-Vermittlung GmbH, Hamburg	100.0000
ERGO Vorsorgemanagement GmbH, Vienna	100.0000

Company and registered seat	% share of capital
ERGO Zehnte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
ERGO Zwölfte Beteiligungsgesellschaft mbH, Munich	100.0000
ERGO-FESCO Broker Company Limited, Beijing	66.0000
ERV (China) Travel Service and Consulting Ltd., Beijing	100.0000
Etics, s.r.o., Prague	100.0000
Etoblete 160016 S.L., Valencia	100.0000
Euro-Center (Cyprus) Ltd., Larnaca	100.0000
Euro-Center (Thailand) Co., Ltd., Bangkok	100.0000
Euro-Center Cape Town (Pty) Ltd, Cape Town	100.0000
Euro-Center Holding North Asia (HK) Pte. Ltd., Hong Kong	100.0000
Euro-Center Ltda., São Paulo	100.0000
Euro-Center North Asia Consulting Services (Beijing) Co., Ltd., Beijing	100.0000
Euro-Center Prague, s.r.o., Prague	100.0000
EUROCENTER S.A., Palma de Mallorca	100.0000
Euro-Center Sydney Pty Ltd., Sydney	100.0000
Euro-Center USA, Inc., New York City, New York	100.0000
EURO-CENTER YEREL YARDIM HIZMETLERI Ltd. Şti., Istanbul	100.0000
European Assistance Holding GmbH, Munich	100.0000
Evaluación Médica TUW S.L., Barcelona	100.0000
Gamaponti 140014 S.L., Valencia	100.0000
GBG Vogelsanger Straße GmbH, Cologne	94.7826
Gebäude Service Gesellschaft Überseering 35 mbH, Hamburg	100.0000
goDentis – Gesellschaft für Innovation in der Zahnheilkunde mbH, Cologne	100.0000
Great Lakes (Gibraltar) Plc, Gibraltar	100.0000
Guanzu 2002 S.L., Valencia	100.0000
Hamburger Hof Management GmbH, Hamburg	100.0000
Hansekuranz Kontor GmbH, Münster	80.0042
Hartford Steam Boiler Colombia Ltda, Bogotá	100.0000
Hartford Steam Boiler UK Limited, Manchester	100.0000
Hestia Loss Control Sp.z.o.o., Sopot	100.0000
HSB Associates Inc., New York City, New York	100.0000
HSB Sheet Metal EaaS GmbH & Co. KG, Munich	100.0000
HSB Ventures Inc., Dover, Delaware	100.0000
Ideenkapital erste Investoren Service GmbH, Düsseldorf	100.0000
Ideenkapital Fonds Treuhand GmbH, Düsseldorf	100.0000
IDEENKAPITAL Investment GmbH, Düsseldorf	100.0000
Ideenkapital Media Treuhand GmbH, Düsseldorf	100.0000
IDEENKAPITAL Metropolen Europa Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
IDEENKAPITAL PRORENDITA EINS Treuhandgesellschaft mbH, Düsseldorf	100.0000
IDEENKAPITAL Schiffsfonds Treuhand GmbH, Düsseldorf	100.0000
IFS Europe Holding GmbH, Munich	100.0000
IK Einkauf Objektverwaltungsgesellschaft mbH, Düsseldorf	100.0000
IK Einkaufsmärkte Deutschland Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
IK FE Fonds Management GmbH, Düsseldorf	100.0000
IK Komp GmbH, Düsseldorf	100.0000
IK Objekt Bensheim GmbH, Düsseldorf	100.0000
IK Objekt Frankfurt Theodor-Heuss-Allee GmbH i. L., Düsseldorf	100.0000
IK Pflegezentrum Uelzen Verwaltungs-GmbH, Düsseldorf	100.0000
IK Property Eins Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
IK Property Treuhand GmbH, Düsseldorf	100.0000
IoT Financing Services LLC, Dover, Delaware	100.0000

Company and registered seat	% share of capital
Jogszerviz Kft, Budapest	100.0000
JRP (London) Limited, London	100.0000
JRP Insurance Management Limited, London	100.0000
JRP Underwriting Ltd., London	100.0000
Junos Verwaltungs GmbH, Munich	100.0000
K & P Objekt Hamburg Hamburger Straße GmbH, Düsseldorf	100.0000
K & P Objekt Hamburg Hamburger Straße Immobilienfonds GmbH & Co. KG, Düsseldorf[4]	36.6889
K & P Objekt München Hufelandstraße GmbH i. L., Düsseldorf	100.0000
KQV Solarpark Franken 1 GmbH & Co. KG, Düsseldorf	100.0000
Larus Vermögensverwaltungsgesellschaft mbH, Munich	100.0000
Legal Net GmbH, Munich	100.0000
m:editerran Power S.a.s. di welivit Solar Italia S.r.l., Bolzano	100.0000
Marbury Agency Inc., Amelia, Ohio	100.0000
MAYFAIR Financing GmbH i. L., Munich	100.0000
MEAG Center House S.A., Ixelles	100.0000
MEAG EM Rent Nachhaltigkeit (A+I Tranche), Munich[4]	25.2039
MEAG EuroCorpRent, Munich[4]	74.8339
MEAG FlexConcept – EuroGrowth, Luxembourg[4]	100.0000
MEAG Global Real Estate Value (A+I Tranche), Munich[4]	94.0854
MEAG Hong Kong Limited, Hong Kong	100.0000
MEAG Institutional Fund GP S.à.r.l., Luxembourg	100.0000
MEAG Insurance Fund – Tied Assets, Geneva[4]	100.0000
MEAG Luxembourg S.à r.l., Luxembourg	100.0000
MEAG MultiSmart (A+I), Munich[4]	95.5000
MEAG Pension Rent, Munich[4]	100.0000
MEAG Pension Safe, Munich[4]	100.0000
MEAG Vermögensanlage Komfort, Munich[4]	40.4904
MEAG Vermögensanlage Return (A+I Tranche), Munich[4]	56.5907
Mediastream Consulting GmbH i. L., Grünwald	100.0000
Mediastream Dritte Film GmbH i. L., Grünwald	100.0000
Mediastream Film GmbH i. L., Grünwald	100.0000
Mediastream Zweite Film GmbH i. L., Grünwald	100.0000
MedNet Bahrain W.L.L., Manama	100.0000
MedNet Egypt LLC, Cairo	100.0000
MedNet Europa GmbH, Munich	100.0000
MedNet Global Healthcare Solutions LLC, Dubai	100.0000
MedNet Greece S.A., Athens	78.7157
MedNet Jordan Co. W.L.L., Amman	100.0000
MedNet Saudi Arabia LLC, Jeddah	100.0000
MedNet UAE FZ LLC, Dubai	100.0000
miCura Pflegedienste Berlin GmbH, Berlin	100.0000
miCura Pflegedienste Bremen GmbH, Bremen	100.0000
miCura Pflegedienste Düsseldorf GmbH, Düsseldorf	100.0000
miCura Pflegedienste GmbH, Cologne	100.0000
miCura Pflegedienste Hamburg GmbH, Hamburg	100.0000
miCura Pflegedienste Krefeld GmbH, Krefeld	100.0000
miCura Pflegedienste München/Dachau GmbH, Dachau	51.0000
miCura Pflegedienste München GmbH i. L., Munich	100.0000
miCura Pflegedienste München Ost GmbH, Munich	65.0000
miCura Pflegedienste Münster GmbH, Münster	100.0000
miCura Pflegedienste Nürnberg GmbH, Nuremberg	51.0000
MPL Claims Management Ltd., London[4]	50.0000
MR Beteiligungen 2. UK AG & Co. KG, Grünwald	100.0000
MR Beteiligungen 3. GmbH, Munich	100.0000
MR Beteiligungen 15. GmbH, Munich	100.0000
MR Beteiligungen 18. GmbH, Grünwald	100.0000

Company and registered seat	% share of capital
MR Beteiligungen AG, Grünwald	100.0000
MR Financial Group GmbH, Munich	100.0000
MR Forest GmbH, Munich	100.0000
MR Group Investment US Inc., Dover, Delaware	100.0000
MR HealthTech Ltd., Nicosia	100.0000
MR Infrastructure Inc., Dover, Delaware	100.0000
MR McQueen LP, Dover, Delaware	100.0000
MR RENT-Management GmbH, Munich	100.0000
MRV Fund IV LP, Dover, Delaware[1]	100.0000
MU068 MR Placem (FCP), Paris[4]	100.0000
Münchener de Argentina Servicios Técnicos S.R.L., Buenos Aires	100.0000
Münchener de Mexico S.A., Mexico	100.0000
Münchener de Venezuela C.A. Intermediaria de Reaseguros, Caracas	100.0000
Münchener Finanzgruppe AG Beteiligungen, Munich	100.0000
MÜNCHENER RÜCKVERSICHERUNGS – GESELLSCHAFT AKTIENGESELLSCHAFT IN MÜNCHEN ESCRITÓRIO DE REPRESENTAÇÃO NO BRASIL LTDA, São Paulo	100.0000
Munich American Reassurance Company PAC Inc., Norcross, Georgia[4]	0.0000
Munich Canada Systems Corporation, Toronto, Ontario	100.0000
Munich Management Pte. Ltd., Singapore	100.0000
Munich Re America Brokers Inc., Dover, Delaware	100.0000
Munich Re America Management Ltd., London	100.0000
Munich Re Automation Solutions GmbH, Munich	100.0000
Munich Re Automation Solutions Inc., Wilmington, Delaware	100.0000
Munich Re Automation Solutions K.K., Tokyo	100.0000
Munich Re Automation Solutions Pte. Ltd., Singapore	100.0000
Munich Re Automation Solutions Pty Ltd, Sydney	100.0000
Munich Re Capital Markets GmbH, Munich	100.0000
Munich Re Capital No.2 Limited, London	100.0000
Munich Re Digital Partners Limited, London	100.0000
Munich Re Health Services FZ-LLC, Dubai	100.0000
Munich Re India Services Private Limited, Mumbai	100.0000
Munich Re Investment Partners GmbH, Munich	100.0000
Munich Re Risk Solution Ireland Limited, Dublin	100.0000
Munich Re Service GmbH, Munich	100.0000
Munich Re Specialty Group Insurance Services Inc., Schaumburg, Illinois	100.0000
Munich Re Underwriting Agents (DIFC) Ltd., Dubai	100.0000
Munich ReThink GmbH, Munich	100.0000
Munich-Canada Management Corp. Ltd., Toronto, Ontario	100.0000
MunichFinancialGroup AG Holding, Munich	100.0000
MunichFinancialServices AG Holding, Munich	100.0000
Munichre Service Limited, Hong Kong	100.0000
Naretoblera 170017 S.L., Valencia	100.0000
Nerruze 120012 S.L., Valencia	100.0000
nexible GmbH, Düsseldorf	100.0000
Orrazipo 110011 S.L., Valencia	100.0000
P.A.N. Verwaltungs GmbH, Grünwald	100.0000
PLATINIA Verwaltungs-GmbH i. L., Munich	100.0000
Ponga Silva Limited, Rotorua	100.0000
PORT Schiffsverwaltungsgesellschaft mbH, Bramstedt	100.0000
PRORENDITA DREI Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
PRORENDITA EINS Verwaltungsgesellschaft mbH i. L., Düsseldorf	100.0000
PRORENDITA FÜNF Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
PRORENDITA VIER Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
PRORENDITA ZWEI Verwaltungsgesellschaft mbH i. L., Düsseldorf	100.0000
Reaseguradora de las Américas S.A., Havana	100.0000
SAINT LEON ENERGIE S.A.R.L., Saargemünd	100.0000
Schloss Hohenkammer GmbH, Hohenkammer	100.0000
Schrömbgens & Stephan GmbH Versicherungsmakler, Düsseldorf	100.0000
Smart Thinking Consulting (Beijing) Co. Ltd., Beijing	100.0000
Solarfonds Göttelborn 2 GmbH & Co. KG, Düsseldorf[4]	34.4234
Sopockie Towarzystwo Doradcze Sp.z.o.o., Sopot	100.0000
Stichting Aandelen Beheer D.A.S. Holding, Amsterdam	100.0000
Sustainable Finance Risk Consulting GmbH, Munich	100.0000
TAS Touristik Assekuranz-Service GmbH, Frankfurt am Main	100.0000
Tellus Demetra LLC, Wilmington, Delaware	100.0000
TIERdirekt GmbH, Munich	75.0000
Tillobesta 180018 S.L., Valencia	100.0000
TPA Vertriebs- und Marketing GmbH, Hamburg	80.1000
Triple IP B.V. in liquidatie, Utrecht	100.0000
US PROPERTIES VA Verwaltungs-GmbH, Düsseldorf	100.0000
Verwaltungsgesellschaft "PORT ELISABETH" mbH, Bramstedt	100.0000
Verwaltungsgesellschaft "PORT LOUIS" mbH, Bramstedt	100.0000
Verwaltungsgesellschaft "PORT MOUTON" mbH, Bramstedt	100.0000
Verwaltungsgesellschaft "PORT RUSSEL" mbH, Bramstedt	100.0000
Verwaltungsgesellschaft "PORT STEWART" mbH, Bramstedt	100.0000
VICTORIA Immobilien Management GmbH i. L., Munich	100.0000
VICTORIA Immobilien-Fonds GmbH, Düsseldorf	100.0000
VICTORIA US Property Zwei GmbH i. L., Munich	100.0000
Victoria Vierter Bauabschnitt Management GmbH, Düsseldorf	100.0000
Viwis GmbH, Munich	100.0000
VV-Consulting Gesellschaft für Risikoanalyse, Vorsorgeberatung und Versicherungsvermittlung GmbH, Vienna	100.0000
welivit New Energy GmbH, Düsseldorf	100.0000
welivit Solar España GmbH, Düsseldorf	100.0000
welivit Solar Italia s.r.l., Bolzano	100.0000
Windpark Langengrassau Infrastruktur GbR, Bremen[1]	83.3300
WNE Solarfonds Süddeutschland 2 GmbH & Co. KG, Düsseldorf	100.0000
Wohnungsgesellschaft Brela mbH, Hamburg	100.0000
WP Kladrum/Dargelütz GbR, Bremen[1]	55.0000
Zacobu 110011 S.L., Valencia	100.0000
Zacuba 6006 S.L., Valencia	100.0000
Zacubacon 150015 S.L., Valencia	100.0000
Zafacesbe 120012 S.L., Valencia	100.0000
Zapacubi 8008 S.L., Valencia	100.0000
Zarzucolumbu 100010 S.L., Valencia	100.0000
Zetaza 4004 S.L., Valencia	100.0000
Zicobucar 140014 S.L., Valencia	100.0000
Zucaelo 130013 S.L., Valencia	100.0000
Zucampobi 3003 S.L., Valencia	100.0000
Zucarrobiso 2002 S.L., Valencia	100.0000
Zucobaco 7007 S.L., Valencia	100.0000
Zulazor 3003 S.L., Valencia	100.0000
Zumbicobi 5005 S.L., Valencia	100.0000

Company and registered seat	% share of capital
Zumcasba 1001 S.L., Valencia	100.0000
Zuncabu 4004 S.L., Valencia	100.0000
Zuncolubo 9009 S.L., Valencia	100.0000
Associated and joint ventures accounted for using the equity method	
1818 Acquisition LLC, Dover, Delaware	20.6400
Arcapark SAS, Rueil Malmaison[5]	15.1000
Astoria Power Partners Holding LLC, Dover, Delaware	20.0000
Bazos CIV LP, Wilmington, Delaware[7]	100.0000
Consorcio Internacional de Aseguradores de Crédito S.A., Madrid[5]	15.0353
D.A.S. Difesa Automobilistica Sinistri, S.p.A. di Assicurazione, Verona	49.9920
EGM Wind SAS, Paris	40.0000
ERGO China Life Insurance Co., Ltd., Jinan, Shandong Province	50.0000
Europai Utazasi Biztosito Rt, Budapest	26.0000
Europäische Reiseversicherungs-Aktiengesellschaft, Vienna	25.0100
GHGH Holdings Inc., Surrey, British Columbia	40.0000
Global Aerospace Underwriting Managers Ltd., London[7]	51.0000
HDFC ERGO General Insurance Company Ltd., Mumbai	48.4555
Infra Foch Topco SAS, Puteaux[5]	10.7900
Invesco MEAG US Immobilien Fonds IV B, Luxembourg	37.1670
KarstadtQuelle Finanz Service GmbH i. L., Düsseldorf	50.0000
King Price Financial Services (Pty) Ltd, Pretoria[5]	15.0000
Marchwood Power Limited, Southampton	50.0000
MEAG Pacific Star Holdings Ltd. i. L., Hong Kong	50.0000
MEDICLIN Aktiengesellschaft, Offenburg	35.0042
National Health Insurance Company – Daman – PJSC, Abu Dhabi	20.0000
Next Insurance Inc., Wilmington, Delaware	36.4373
Poolbeg Investments Limited, London	37.5000
RP Vilbeler Fondsgesellschaft mbH i. L., Frankfurt am Main	40.0000
Sana Kliniken AG, Munich	22.4904
SAS Le Point du Jour, Paris	50.0000
SNIC Insurance B.S.C. (c), Manama	22.5000
SR Texas Wind Holdings 1 LLC, Dover, Delaware	49.0000
STEAG Fernwärme GmbH, Essen	49.0000
Storebrand Helseforsikring AS, Oslo	50.0000
Super Home Inc., Wilmington, Delaware[5]	17.3800
Suramericana S.A., Medellin[5]	18.8672
Taunus Holding B.V., Rotterdam	23.1913
Thaisri Insurance Public Company Limited, Bangkok	40.2576
T-Solar Global Operating Assets S.L., Madrid	37.0000
Vier Gas Investments S.à r.l., Luxembourg	43.7516
Associates and joint ventures accounted for at fair value	
"PORT ELISABETH" GmbH & Co. KG, Bramstedt	31.9660
"PORT LOUIS" GmbH & Co. KG, Bramstedt	26.0495
Assistance Partner GmbH & Co. KG, Munich	21.6600
Augury Inc., Wilmington, Delaware[5]	9.1000
carexpert Kfz-Sachverständigen GmbH, Walluf	25.0000
Cyber Sepio Systems Limited, Tel Aviv[5]	12.9400
Dayforward Inc., Wilmington, Delaware[5]	8.5000
Fernkälte Geschäftsstadt Nord Gesellschaft bürgerlichen Rechts, Hamburg[1]	36.7183
Finsure Investments (Private) Limited, Harare	24.5000
FlexFactory GmbH, Stuttgart	50.0000
GIG City Nord GmbH, Hamburg	20.0000
Hartford Research LLC, Lewes, Delaware	41.7500

Company and registered seat	% share of capital
High Definition Vehicle Insurance Inc., Dover, Delaware[5]	9.2679
Inshur Holdings Corp, Wilmington, Delaware[5]	18.1000
LCM Logistic Center Management GmbH, Hamburg	50.0000
MEAG Pacific Star Asset Management Pte. Ltd., Singapore	50.0000
Orbit Fab Inc., Dover, Delaware[5]	5.2700
PERILS AG, Zurich[5]	10.0000
SIP Social Impact Partners GmbH, Munich	50.0000
Span.IO Inc., Dover, Delaware[5]	9.1700
Spruce Holdings Inc., Wilmington, Delaware[5]	11.8200
Teko – Technisches Kontor für Versicherungen Gesellschaft mit beschränkter Haftung, Düsseldorf	30.0000
Tianjin Yihe Information Technology Co. Ltd., Tianjin	24.9000
T-Solar Luxembourg GP S.à.r.l., Luxembourg	37.0000
versdiagnose GmbH, Hanover	49.0000
Volksbanken-Versicherungsdienst GmbH, Vienna	25.2319
VV Immobilien Verwaltungs und Beteiligungs GmbH, Munich	30.0000
We Predict Limited, Swansea[5]	17.5900
Windpark Osterhausen-Mittelhausen Infrastruktur GbR, Bremen[1, 7]	58.9400
Companies included on a pro-rata basis (joint operation pursuant to IFRS 11)	
"Pensionsfonds" des Versorgungswerks MetallRente bei der Allianz Pensionsfonds AG, Stuttgart	17.5000
Shareholdings exceeding 5% of the voting rights in large companies as defined in Section 271(1) of the German Commercial Code (HGB)	
Admiral Group plc, Cardiff (equity: €47,146k; result for year: €323,614k)	10.1450
Extremus Versicherungs-Aktiengesellschaft, Cologne (equity: €64,100k; result for year: €42k)	16.0000
Protektor Lebensversicherungs-AG, Berlin (equity: €7,851k; result for year: €7k)	10.7631
Saudi Enaya Cooperative Insurance Company, Jeddah (equity: €32,539k; result for year: -€24,778k)	15.0000
Wataniya Insurance Company, Jeddah (equity: €56,264k; result for year: €4,304k)	10.0000
Other shareholdings as defined in Section 271(1) of the German Commercial Code (HGB)	
Acko Technology & Services Private Limited, Bangalore (equity: €58,606k; result for year: -€39,298k)	5.0000
At-bay Inc., Wilmington, Delaware (equity: €1,414k; result for year: -€5,315k)	4.1800
Autobahn Tank & Rast Gruppe GmbH & Co. KG, Bonn (equity: €194,821k; result for year: -€59,419k)	9.9980
Autobahn Tank & Rast Management GmbH, Bonn (equity: €24k; result for year: €2k)	10.0020
B3i Services AG, Zurich (equity: €18,498k; result for year: -€9,993k)	2.7705
Babylon Holdings Limited, St. Helier (equity: €160,064k; result for year: -€198,191k)	0.3700
Bought by Many Limited "BBM", London (equity: €9,869k; result for year: -€12,174k)	10.8000
CBRE U.S. Core Partners Parallel Limited Partnership, Wilmington, Delaware[6] (equity: €28,583k; result for year: €2,244k)	99.9000
Craigmore Permanent Crop LP, Christchurch[6] (equity: €93,794k; result for year: €1,323k)	44.1121
Deutsches Forschungszentrum für Künstliche Intelligenz GmbH, Kaiserslautern (equity: €22,901k; result for year: €1,539k)	2.5000

Company and registered seat	% share of capital
Fair Financial Corp., Wilmington, Delaware (equity: €82,293k; result for year: -€246,395k)	1.1100
FIA Timber Partners II LP, Wilmington, Delaware[6] (equity: €115,137k; result for year: €1,976k)	39.0800
Forge Global Inc., Wilmington, Delaware (equity: €34,477k; result for year: -€6,462k)	5.3100
Fraugster Services GmbH, Berlin (equity: €2,237k; result for year: -€5,648k)	6.3900
Green Acre LLC, Wilmington, Delaware[6] (equity: €45,947k; result for year: €1,887k)	31.9361
Hancock Timberland XII LP, Wilmington, Delaware (equity: €267,267k; result for year: €27,712k)	15.1500
heal.capital I GmbH & Co. KG, Berlin (equity: €0k; result for year: -€1,010k)	17.9371
Helium Systems Inc., Dover, Delaware (equity: €10,770k; result for year: -€7,840k)	5.0300
Hines India Fund LP, Wilmington, Delaware (equity: €38,164k; result for year: €4,042k)	11.8333
Hippo Analytics Inc., Wilmington, Delaware (equity: €114,407k; result for year: -€11,758k)	1.2100
IK Objekt Bensheim Immobilienfonds GmbH & Co. KG, Düsseldorf (equity: €18,020k; result for year: -€464k)	16.2445
M 31 Beteiligungsgesellschaft mbH & Co. Energie KG, Düsseldorf (equity: €1,089,511k; result for year: €71,141k)	18.6246
m:solarPOWER GmbH & Co. KG, Düsseldorf (equity: €500k; result for year: €153k)	0.0000
MS Immobilien-Fonds Objekt Leipzig GmbH & Co. KG, Stuttgart (equity: €28,868k; result for year: €534k)	0.1923
Nürnberger Beteiligungs AG, Nuremberg (equity: €708,247k; result for year: €46,387k)	19.1038
Olivia Holdings LLC, Wilmington, Delaware (equity: €1,320,346k; result for year: -€27,682k)	8.8000
Parametrix Group Holdings Inc., Wilmington, Delaware (equity: €2,920k; result for year: -€211k)	5.0000
PORENDITA DREI GmbH & Co. KG, Düsseldorf (equity: €3,569k; result for year: -€400k)	0.0260
PORENDITA FÜNF GmbH & Co. KG, Düsseldorf (equity: €6,673k; result for year: -€62k)	0.0384
PORENDITA VIER GmbH & Co. KG, Düsseldorf (equity: €4,328k; result for year: -€902k)	0.0029
Ridecell Inc., Wilmington, Delaware (equity: -€1,469k; result for year: -€19,814k)	3.2300
RMS Australian Forests Fund I LP, George Town, Grand Cayman[6] (equity: €94,399k; result for year: €29,630k)	37.4257
RMS Forest Growth International LP, George Town, Grand Cayman[6] (equity: €82,658k; result for year: €16,161k)	43.4700
Slice Labs Inc., Ottawa, Ontario (equity: €4,246k; result for year: -€9,208k)	8.2000
Solarpark 1000 Jahre Fürth GmbH & Co. KG, Düsseldorf (equity: €693k; result for year: €100k)	0.9091
T&R MLP GmbH, Bonn (equity: €15k; result for year: -€5k)	10.0020
T&R Real Estate GmbH, Bonn (equity: €140,898k; result for year: €85k)	10.0020
Team8 Capital I LP, George Town, Grand Cayman (equity: €16k; result for year: €0k)	3.3300
Team8 Partners II LP, George Town, Grand Cayman (equity: €19,080k; result for year: €628k)	8.5300
Ticker Limited, London (equity: €4k; result for year: -€2,944k)	15.0000
Trov Inc., Dover, Delaware (equity: €4,243k; result for year: -€21,308k)	10.5800
Umspannwerk Hellberge GmbH & Co. KG, Zossen (equity: €0k; result for year: -€132k)	6.9000
welivit TOP SOLAR GmbH & Co. KG, Düsseldorf (equity: €80k; result for year: €48k)	0.0000
Zeguro Inc., Wilmington, Delaware (equity: -€37k; result for year: -€2,804k)	4.1300

1 Munich Reinsurance Company or one of its consolidated subsidiaries is a fully liable partner in this company.
2 This fully consolidated German subsidiary with the legal form of a partnership, as defined in Section 264a of the German Commercial Code (HGB), intends to fulfil the conditions required pursuant to Section 264b of the Commercial Code and, in the 2020 financial year, to avail itself of the relevant provision exempting it from preparing annual financial statements.
3 This fully consolidated German subsidiary intends to fulfil the conditions required in Section 264(3) of the German Commercial Code (HGB) and, in the 2020 financial year, to avail itself of the relevant provision exempting it from preparing annual financial statements.
4 Control due to voting majority or other control pursuant to IFRS 10.
5 Significant influence owing to representation of Munich Re on the board of directors and/or supervisory body or an equivalent governing body of the associate.
6 No control and/or no significant influence, as it is a purely financial investment under the managerial responsibility of an external asset manager.
7 No control, since the articles of association or another agreement bind the relevant operations to a quorum which cannot be achieved by Munich Re.

Drawn up and released for publication,
Munich, 8 March 2021.

The Board of Management

Translation from the German language of Independent auditor's report

The auditor's report reproduced below includes an "Assurance report in accordance with Section 317(3)(b) of the Commercial Code (HGB) on the electronic reproduction of the consolidated financial statements and the combined management report prepared for publication purposes" ("separate report on ESEF compliance"). The subject matter (ESEF documents) to which the separate report on ESEF compliance relates is not attached. The assured ESEF documents can be inspected in, or retrieved from, the Federal Gazette.

To Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München, Munich

Report on the audit of the consolidated financial statements and of the combined management report

Opinions

We have audited the consolidated financial statements of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München, Munich, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2020, the consolidated income statement, the statement of recognised income and expense, the Group statement of changes in equity and the consolidated cash flow statement for the financial year from 1 January 2020 to 31 December 2020, and notes to the financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München for the financial year from 1 January 2020 to 31 December 2020. In compliance with German legal requirements, we have not audited the Group statement on corporate governance which is published on the website referenced in the combined management report and is part of the combined management report, or the content of the Group non-financial statement included in section "combined non-financial statement" of the combined management report. In compliance with German legal requirements, we have not audited corporate information that is not part of the combined management report and is referenced in the Group, Remuneration report and Financial position sections of the combined management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e(1) of the German Commercial Code [Handelsgesetzbuch, HGB] and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2020 and of its financial performance for the financial year from 1 January 2020 to 31 December 2020, and

- the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the combined management report does not cover the above-mentioned Group non-financial statement or the Group statement on corporate governance.

Pursuant to Section 322(3) sentence 1 of the Commercial Code (HGB), we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements or of the combined management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with Section 317 of the Commercial Code (HGB) and the EU Audit Regulation No. 537/2014 (referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the combined management report" section of our auditor's report. We are independent of the Group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10(2)(f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5(1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the combined management report.

Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January 2020 to 31 December 2020. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

Below, we describe what we consider to be the key audit matters:

Measurement of the provision for outstanding claims in property-casualty business

Reasons for the designation as a key audit matter

The provision for outstanding claims in property-casualty business concerns the segments Property-casualty reinsurance, ERGO Property-casualty Germany, and ERGO International. This provision includes, among other things, the partial loss provision for known and unknown claims; it is calculated on the basis of an empirical value and by using actuarial techniques and statistical methods. In this context, past experience is used as a basis for making assumptions about premiums and ultimate loss ratios, as well as the time frames, factors and speed of claims settlement. Management determines the amount of the provision for outstanding claims based on the results of the actuarial techniques and additional information regarding the uncertainties associated with the calculations. The assessment of major losses is regarded separately in calculating the provision for outstanding claims.

Determining the provision for outstanding claims is subject to uncertainty and judgement, as the provision is largely based on estimates and assumptions. Uncertainties in estimation arise in particular from the occurrence, amount, and speed of settlement of large claims; long-term claims development and special loss scenarios (including third-party liability, particularly asbestos and environmental liability claims), and losses in connection with the Covid-19 pandemic. With regard to the estimation of the provision in the context of the Covid-19 pandemic, there is uncertainty as to whether the Company is affected by losses based on contractual agreements and particularly owing to, in most cases, insufficient empirical data for such losses. We have therefore designated the measurement of the provision for outstanding claims as a key audit matter. In addition, the provision for outstanding claims in property-casualty business is a material liability item in the consolidated balance sheet.

Auditor's response

As part of our audit, we gained an understanding of the process of determining the provision for outstanding claims in property-casualty business. We also tested the effectiveness of the controls implemented for ensuring the completeness and accuracy of the recognition and measurement of claims.

We assessed the suitability of the actuarial techniques and methods utilised, as well as the derivation and transparency of key assumptions used, including loss ratios and assumptions with regard to claims settlement.

For the purpose of assessing the quality of estimates, we analysed the actual development of the previous year's provision for outstanding claims based on the run-off results.

We applied mathematical and statistical methods to generate our own loss projections for certain segments based on risk considerations. We first calculated a best estimate and defined an appropriate range based on statistical probabilities, and then compared these with the Company's calculations.

In addition, we compared the reserve level at the end of the reporting period with the previous year's level, and verified adjustments made to the actuarial estimate. In this context, we analysed the documentation of the underlying calculations or qualitative rationale.

As part of substantive audit procedures, we verified the calculation of the provisions for major losses on the basis of selecting specific items, taking into account the information and data available at the end of the reporting period. In the case of losses in connection with the Covid-19 pandemic, we assessed whether the Company is affected by losses based on contractual agreements, and also assessed the measurement of the provisions.

With regard to measurement of the provisions for asbestos and environmental liability claims, we verified the procedures for validating the reserve level and re-calculated certain methods. We furthermore reconciled the comparative figures used with market studies available to the general public.

We engaged our own specialists with knowledge of actuarial science in our audit.

Our audit has not led to any reservations relating to the measurement of the provision for outstanding claims in property-casualty business.

Reference to related disclosures

The information on the accounting and measurement policies used are disclosed in the section Equity and liabilities – C Gross technical provisions in the Notes to the consolidated financial statements. In addition, the use of estimates and assumptions is explained in the section Recognition and measurement, Use of judgements and estimates in recognition and measurement. Moreover, there is further information on the line items in section (22) Provision for outstanding claims. Risk information can be found in the section (40) Disclosures on risks from property-casualty insurance business in the Notes to the consolidated financial statements, and in the section Risk report in the Combined management report.

Measurement of the provision for future policy benefits, the provision for outstanding claims, and deferred acquisition costs in life and health business

Reasons for the designation as a key audit matter

The provisions in life and health business concern the segments life and health reinsurance, ERGO Life and Health Germany, and ERGO International, and mainly comprise the provision for future policy benefits and the provision for outstanding claims. The measurement of the provision for future policy benefits is dependent on a number of assumptions, particularly relating to mortality, disability, morbidity, interest-rate development, lapse rates, costs, administration expenses and discount rates. Particularly because the assumptions are generally not based on observable market inputs, the determination or revision of the assumptions is subject to uncertainty and judgement. Additional uncertainties arise in connection with the Covid-19 pandemic.

The provision for outstanding claims in life and health reinsurance is determined on the basis of information from the cedants and/or on the basis of actuarial techniques that require estimates and assumptions.

A liability adequacy test is used to verify the adequacy of the provision for future policy benefits and the recoverability of deferred acquisition costs. The liability adequacy test is conducted on the basis of updated assumptions.

This has been designated a key audit matter due to the estimations involved and the corresponding judgements in measurement. In addition, the provision for future policy benefits and the provision for outstanding claims in life and health business are material liability items in the consolidated balance sheet. A substantial share of the deferred acquisition costs in the Group is attributable to life and health business.

Auditor's response

As part of our audit, we gained an understanding of the processes of determining the provision for future policy benefits, the provisions for outstanding claims, and the deferred acquisition costs. We also tested the effectiveness of the controls implemented within the processes.

In addition, we methodically verified the actuarial techniques used to derive the key assumptions that are utilised to determine the provision for future policy benefits. We also analysed the discount rates used.

For the purpose of assessing the quality of estimates, we compared the results expected by the Company for the individual business units with the actual results and assessed them against market developments.

We performed our own calculation of the provision for future policy benefits on the basis of a risk-based sample of sub-portfolios and tariffs, and compared our results with those of the Company.

For provisions for outstanding claims that were measured using statistical methods, we generated our own actuarial projections for selected lines of business and compared them with the carrying amounts of the provisions.

In the case of losses in connection with the Covid-19 pandemic – and particularly in life reinsurance in the United States – we assessed whether the Company is affected by the losses based on contractual agreements, and also assessed the measurement of the provisions.

We assessed the assumptions and methods used in the adequacy test.

We engaged our own specialists with knowledge of actuarial science in our audit.

Our audit has not led to any reservations relating to the measurement of the provision for future policy benefits, the provision for outstanding claims or the deferred acquisition costs in life and health business.

Reference to related disclosures

The information on the accounting and measurement policies used are disclosed in the section Equity and liabilities – C Gross technical provisions in the Notes to the consolidated financial statements. In addition, the use of estimates and assumptions is explained in the section Recognition and measurement, Use of judgements and estimates in recognition and measurement. Moreover, there is further information on the line items in section (13) Deferred acquisition costs and (21) Provision for future policy benefits. Risk information can be found in section (39) Disclosures on risks from life and health insurance business in the Notes to the consolidated financial statements, and in the section Risk report in the Combined management report.

Valuation of unlisted investments

Reasons for the designation as a key audit matter

The fair values of unlisted investments are primarily determined by using valuation models or values assessed by third parties. The primary parameters used are observable market inputs, such as duration-based yield curves and credit spreads. This applies particularly to the fair value measurement of unlisted fixed-interest securities, infrastructure loans, other loans, and derivatives. In addition, unobservable inputs are used to measure certain investments – particularly land and buildings, real estate funds, investments in private equity funds, and alternative direct investments (such as infrastructure). The valuation models selected and the assumptions about inputs defined are judgemental. The greater the number of inputs used that are not observable in the market but are instead based on internal estimates, the greater the scope for judgement. There is increased uncertainty with regard to measuring certain investments owing to the impact of the Covid-19 pandemic. This particularly applies to investments of issuers in sectors and countries heavily affected by the pandemic, and also to infrastructure and private equity investments.

The valuation of unlisted investments has been designated a key audit matter due to the judgements used in selecting the valuation models and the assumptions to be made with regard to the significant inputs. Moreover, unlisted investments contribute a substantial share of the investments line item in the consolidated balance sheet.

Auditor's response

As part of our audit, we gained an understanding of the processes of the valuation of unlisted investments. We also tested the effectiveness of the controls implemented within the processes.

We assessed whether the valuation models used ensured a reliable determination of fair values. In addition, we examined the key valuation parameters as to whether the significant valuation parameters used and observed in the market (yield curves and credit spreads) had been derived in a comprehensible manner. We assessed the suitability of unobservable inputs by having valuation specialists make their own calculations in order to verify the fair values.

In the case of registered bonds and borrowers' note loans, we verified on the basis of a sample whether the credit spreads relevant to the valuation had been applied consistently within the portfolio and to the remaining term to maturity. We also performed own fair value calculations for a sample of registered bonds and borrowers' note loans (including embedded derivatives) and compared them with those made by the Company.

In addition, we performed our own fair value calculations for some derivatives on a sample basis and compared the fair values with those determined by the Company.

Moreover, we verified the fair value measurements of alternative direct investments on the basis of a sample, and assessed the calculation parameters used in consideration of the investment-specific circumstances. We compared the fair values of sub-portfolios of indirectly held real estate investments and of investments in private equity funds with external information. In the case of directly held real estate investments, we verified the measurements made on the basis of samples.

Our audit of the fair value measurements of the unlisted investments also included investments from issuers in sectors and countries heavily affected by the Covid-19 pandemic, as well as infrastructure and private equity investments. We analysed these investments as to whether impairment losses had been recognised in the case of impairment.

Our audit has not led to any reservations relating to the valuation of the unlisted investments.

Reference to related disclosures

The information on the accounting and valuation policies used are disclosed in the section Assets – B Investments in the Notes to the consolidated financial statements. In addition, the use of estimates and assumptions is explained in the section Recognition and measurement, Use of judgements and estimates in recognition and measurement. Moreover, further information on the individual instruments can be found in the section Notes to the consolidated balance sheet – Assets. Information about market risk and credit risk can be found in the section Risk report in the Combined management report.

Other information

The Supervisory Board is responsible for the Report of the Supervisory Board. Management and the Supervisory Board are responsible for the Declaration of Conformity with the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act (AktG), which is part of the Group Statement on Corporate Governance. Management is otherwise responsible for the other information. The other information comprises the above-mentioned Group Statement on Corporate Governance and Group non-financial statement. In addition, the other information comprises other parts of the annual report of which we received a version before issuing this auditor's report, in particular:

- Munich Re at a glance
- Letter to shareholders
- Responsibility statement

but not the consolidated financial statements, the disclosures in the combined management report covered by our audit, or our auditor's report.

Our opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the combined management report, or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of management and the Supervisory Board for the consolidated financial statements and the combined management report

Management is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e(1) of the Commercial Code (HGB) and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, management is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is responsible for the preparation of the combined management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the combined management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 of the Commercial Code (HGB) and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also do the following:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e(1) of the Commercial Code (HGB).

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our opinions.

- Evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by management in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and, where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Assurance report in accordance with Section 317(3)(b) of the Commercial Code (HGB) on the electronic reproduction of the consolidated financial statements and the combined management report prepared for publication purposes

Reasonable assurance opinion

We have performed assurance work in accordance with Section 317(3)(b) of the Commercial Code (HGB) to obtain reasonable assurance about whether the reproduction of the consolidated financial statements and the combined management report (hereinafter the "ESEF documents") contained in the attached electronic file Munich_Re_KA+ZLB_ESEF-2020-12-31.zip and prepared for publication purposes complies in all material respects with the requirements of Section 328(1) of the Commercial Code (HGB) concerning the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance extends only to the conversion into ESEF format of the information contained in the consolidated financial statements and the combined management report and therefore relates neither to the information contained in this reproduction nor to any other information contained in the above-mentioned electronic file.

In our opinion, the reproduction of the consolidated financial statements and the combined management report contained in the above-mentioned electronic file and prepared for publication purposes complies in all material respects with the requirements of Section 328(1) of the Commercial Code (HGB) regarding the electronic reporting format. We do not express any opinion on the information contained in this reproduction nor on any other information contained in the above-mentioned file beyond this reasonable assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying combined management report for the financial year from 1 January 2020 to 31 December 2020 contained in the above "Auditor's report on the consolidated financial statements and on the combined management report".

Basis for the reasonable assurance opinion

We conducted our assurance work on the reproduction of the consolidated financial statements and the combined management report contained in the above-mentioned electronic file in accordance with Section 317(3)(b) of the Commercial Code (HGB) and the Exposure Draft of IDW Assurance Standard: Assurance in Accordance with Section 317(3)(b) of the Commercial Code (HGB) on the Electronic Reproduction of Financial Statements and Management Reports Prepared for Publication Purposes (ED IDW AsS 410). Accordingly, our responsibilities are further described below in the "Group auditor's responsibilities for assurance work regarding the ESEF documents" section. Our audit firm has applied IDW Standard on Quality Management 1: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibilities of management and the Supervisory Board regarding the ESEF documents

Company management is responsible for the preparation of the ESEF documents, including the electronic reproduction of the consolidated financial statements and the combined management report in accordance with Section 328(1) sentence 4, no. 1 of the Commercial Code (HGB) and for the tagging of the consolidated financial statements in accordance with Section 328(1) sentence 4, no. 2 of the Commercial Code (HGB).

In addition, company management is responsible for such internal control as they consider necessary to enable the preparation of ESEF documents that are free from material non-compliance – whether intentional or unintentional – with the requirements of Section 328(1) of the Commercial Code (HGB) concerning the electronic reporting format.

Company management is also responsible for submitting the ESEF documents together with the auditor's report and the attached audited consolidated financial statements and audited combined management report as well as other documents to be submitted to the German Federal Gazette for publication.

The Supervisory Board is responsible for overseeing the preparation of the ESEF documents as part of the financial reporting process.

Group auditor's responsibilities for assurance work regarding the ESEF documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material non-compliance – whether intentional or unintentional – with the requirements of Section 328(1) of the Commercial Code (HGB). We exercise professional judgement and maintain professional skepticism throughout the assurance work. We also do the following:

- Identify and assess the risks of material non-compliance – whether intentional or unintentional – with the requirements of Section 328(1) of the Commercial Code (HGB); design and perform assurance procedures responsive to those risks; and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.

- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.

- Evaluate the technical validity of the ESEF documents, i.e. whether the electronic file containing the ESEF documents meets the requirements of the version of Delegated Regulation (EU) 2019/815 on the technical standards for this file in force as at 31 December 2020.

- Evaluate whether the ESEF documents enable XHTML reproduction with content equivalent to the audited consolidated financial statements and to the audited combined management report.

- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) enables an appropriate and complete machine-readable XBRL copy of the XHTML reproduction.

Further information pursuant to Article 10 of the EU Audit Regulation

We were elected as Group auditor by the Supervisory Board at its meeting on 17 March 2020. We were engaged by the Chair of the Audit Committee of the Supervisory Board on 30 June 2020. We have been the Group auditor of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München, Munich, without interruption since the 2020 financial year.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the Audit Committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor responsible for the engagement

The German Public Auditor responsible for the engagement is Dr. Thomas Kagermeier.

Munich, 8 March 2021

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Dr. Ott	**Dr. Kagermeier**
Wirtschaftsprüfer	Wirtschaftsprüferin
(German Public Auditor)	(German Public Auditor)

Independent auditor's limited assurance report

The assurance engagement performed by Ernst & Young (EY) relates exclusively to the German version of the non-financial statement 2020 of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München. The following text is a translation of the original German Independent Assurance Report.

To Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München, Munich

We have performed a limited assurance engagement on the non-financial statement of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München according to Section 289b of the German Commercial Code (HGB), which is combined with the non-financial statement of the group (hereafter Munich Re) according to Section 315b of the HGB, consisting of the section "combined non-financial statement" as well as the section "Group" in the combined management report being incorporated by reference, for the reporting period from 1 January 2020 to 31 December 2020 (hereafter "non-financial statement").

Management's responsibility

The legal representatives of the Company are responsible for the preparation of the non-financial statement in accordance with Sections 315c in conjunction with 289c to 289e of the HGB.

This responsibility includes the selection and application of appropriate methods to prepare the non-financial statement as well as making assumptions and estimates related to individual disclosures, which are reasonable in the circumstances. Furthermore, the legal representatives are responsible for such internal controls that they have considered necessary to enable the preparation of a non-financial statement that is free from material misstatement, whether due to fraud or error.

Auditor's declaration relating to independence and quality control

We are independent from the Company in accordance with the provisions under German commercial law and professional requirements, and we have fulfilled our other professional responsibilities in accordance with these requirements.

Our audit firm applies the national statutory regulations and professional pronouncements for quality control, in particular the by-laws regulating the rights and duties of Wirtschaftsprüfer and vereidigte Buchprüfer in the exercise of their profession [Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer] as well as the IDW Standard on Quality Control 1: Requirements for Quality Control in audit firms [IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis (IDW QS 1)].

Auditor's responsibility

Our responsibility is to express a limited assurance conclusion on the non-financial statement based on the assurance engagement we have performed.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board (IAASB). This Standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether the non-financial statement of the Company has been prepared, in all material respects, in accordance with Sections 315c in conjunction with 289c to 289e of the HGB. In a limited assurance engagement, the assurance procedures are less in extent than for a reasonable assurance engagement and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the auditor's professional judgment.

Within the scope of our assurance engagement, which was conducted between September 2020 and March 2021, we performed amongst others the following assurance and other procedures:

- Inquiries of employees regarding the selection of topics for the non-financial statement, the risk assessment and the concepts of Munich Re for the topics that have been identified as material
- Inquiries of employees responsible for data capture and consolidation as well as the preparation of the non-financial statement, to evaluate the reporting processes, the data capture and compilation methods as well as internal controls to the extent relevant for the assurance of the non-financial statement
- Identification of likely risks of material misstatement in the non-financial statement
- Inspection of relevant documentation of the systems and processes for compiling, aggregating and validating data
- Analytical evaluation of disclosures in the non-financial statement
- Inquiries and inspection of documents on a sample basis relating to the collection and reporting of selected data
- Evaluation of the presentation of disclosures in the non-financial statement

Assurance conclusion

Based on our assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the non-financial statement of Munich Re for the period from 1 January 2020 to 31 December 2020 has not been prepared, in all material respects, in accordance with Sections 315c in conjunction with 289c to 289e of the HGB.

Intended use of the assurance report

We issue this report on the basis of the engagement agreed with Munich Re. The assurance engagement has been performed for the purposes of the Company and the report is solely intended to inform the Company as to the results of the assurance engagement and must not be used for purposes other than those intended. The report is not intended to provide third parties with support in making (financial) decisions.

Engagement terms and liability

The “General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms]” dated 1 January 2017 are applicable to this engagement and also govern our relations with third parties in the context of this engagement (www.de.ey.com/general-engagement-terms). In addition, please refer to the liability provisions contained there in no. 9 and to the exclusion of liability towards third parties. We assume no responsibility, liability or other obligations towards third parties unless we have concluded a written agreement to the contrary with the respective third party or liability cannot effectively be precluded.

We make express reference to the fact that we do not update the assurance report to reflect events or circumstances arising after it was issued unless required to do so by law. It is the sole responsibility of anyone taking note of the result of our assurance engagement summarised in this assurance report to decide whether and in what way this result is useful or suitable for their purposes and to supplement, verify or update it by means of their own review procedures.

Munich, 8 March 2021

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Dr. Kagermeier	**Welz**
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

Responsibility statement

"To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the combined management report for Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München and the Group includes a fair review of the development and performance of the business and the position of the Group, together with a description of the material opportunities and risks associated with the expected development of the Group."

Munich, 16 March 2021

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Münchener Rückversicherungs-Gesellschaft (Munich Reinsurance Company) is a reinsurance company organised under the laws of Germany. In some countries, including the United States, Munich Reinsurance Company holds the status of an unauthorised reinsurer. Policies are underwritten by Munich Reinsurance Company or its affiliated insurance and reinsurance subsidiaries. Certain coverages are not available in all jurisdictions.

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Picture credits
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The official German original of this report is also available from the Company. In addition, you can find our Annual Report and interim reports, along with further information about Munich Re, on the internet at www.munichre.com.

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Quarterly figures

		31.12.2020	30.9.2020	30.6.2020	31.3.2020
Balance sheet					
Investments (incl. insurance-related investments)	€m	243,983	242,669	240,184	236,528
Equity	€m	29,994	29,641	29,766	29,116
Net technical provisions	€m	221,480	220,029	219,104	217,455
Balance sheet total	€m	297,946	295,973	294,358	292,554
Shares					
Share price	€	242.80	216.60	231.40	184.10
Munich Reinsurance Company's market capitalisation	€bn	34.0	30.3	32.4	26.6
Other					
Combined ratio					
Reinsurance property-casualty	%	104.2	112.2	99.9	106.0
ERGO Property-casualty Germany	%	92.8	90.9	92.5	93.4
ERGO International	%	93.0	92.5	90.1	95.2
Number of staff		**39,642**	**39,731**	**39,693**	**39,641**

€m	Total	Q4 2020	Q3 2020	Q2 2020	Q1 2020
Gross premiums written	**54,890**	**13,629**	**14,150**	**12,827**	**14,284**
1. Earned premiums					
Gross	53,788	13,882	13,480	13,198	13,229
Ceded	-2,566	-647	-653	-683	-583
Net	51,223	13,235	12,827	12,515	12,646
2. Income from technical interest	5,270	1,819	1,444	1,750	256
3. Expenses for claims and benefits					
Gross	-44,635	-11,979	-11,455	-11,182	-10,019
Ceded share	1,558	354	383	433	388
Net	-43,077	-11,625	-11,072	-10,749	-9,632
4. Operating expenses					
Gross	-13,379	-3,566	-3,285	-3,242	-3,285
Ceded share	564	135	149	149	133
Net	-12,815	-3,431	-3,137	-3,094	-3,153
5. Technical result (1–4)	**600**	**-1**	**62**	**423**	**117**
6. Investment result	**7,398**	**2,090**	**1,691**	**1,697**	**1,920**
Thereof: Associates and joint ventures accounted for using the equity method	155	96	31	17	12
7. Insurance-related investment result	105	479	175	596	-1,145
8. Other operating income	1,168	378	314	249	227
9. Other operating expenses	-2,016	-646	-445	-459	-466
10. Deduction of income from technical interest	-5,270	-1,819	-1,444	-1,750	-256
11. Non-technical result (6–10)	**1,386**	**482**	**291**	**333**	**280**
12. Operating result	**1,986**	**481**	**353**	**755**	**397**
13. Other non-operating result	-83	-34	-31	-6	-11
14. Currency result	-200	-266	-100	23	144
15. Net finance costs	-223	-59	-54	-55	-55
16. Taxes on income	-269	91	32	-138	-255
17. Consolidated result	**1,211**	**212**	**199**	**579**	**221**
Thereof:					
Attributable to Munich Reinsurance Company equity holders	1,211	208	202	580	222
Attributable to non-controlling interests	0	4	-3	-1	-1

€	Total	Q4 2020	Q3 2020	Q2 2020	Q1 2020
Earnings per share	**8.63**	**1.48**	**1.44**	**4.14**	**1.57**

Important dates 2021

25 February 2021
Balance sheet media conference for 2020 consolidated financial statements (preliminary figures)

17 March 2021
Publication of the Group Annual Report 2020

28 April 2021
Annual General Meeting

6 May 2021
Quarterly Statement as at 31 March 2021

10 August 2021
Half-Year Financial Report as at 30 June 2021

9 November 2021
Quarterly Statement as at 30 September 2021

Important dates 2022

23 February 2022
Balance sheet media conference for 2021 consolidated financial statements (preliminary figures)

17 March 2022
Publication of the Group Annual Report 2021

28 April 2022
Annual General Meeting

10 May 2022
Quarterly Statement as at 31 March 2022

9 August 2022
Half-Year Financial Report as at 30 June 2022

8 November 2022
Quarterly Statement as at 30 September 2022

Münchener Rückversicherungs-Gesellschaft
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