Group Annual Report 2019
Munich Re

2019

NOT IF, BUT HOW

Munich RE

Key figures (IFRS)[1]

Munich Re at a glance

		2019	2018	2017	2016	2015
Gross premiums written	€m	51,457	49,064	49,115	48,851	50,374
Net earned premiums	€m	48,280	45,735	47,164	47,118	48,309
Net expenses for claims and benefits	€m	–39,685	–35,116	–41,645	–38,498	–38,731
Net operating expenses	€m	–13,249	–12,587	–12,186	–12,295	–12,367
Operating result	€m	4,004	3,725	1,241	4,025	4,819
Taxes on income	€m	–483	–576	298	–760	–476
Consolidated result	€m	2,707	2,275	392	2,581	3,122
Attributable to non-controlling interests	€m	–17	–34	17	1	15
Earnings per share	€	18.97	15.53	2.44	16.13	18.73
Return on equity (RoE)	%	9.2	8.4	1.3	8.1	10.0
Return on investments (RoI)	%	3.2	2.8	3.2	3.2	3.2
Dividend per share[2]	€	9.80	9.25	8.60	8.60	8.25
Dividend payout[2]	€m	1,374	1,335	1,286	1,333	1,329
Share price at 31 December	€	263.00	190.55	180.75	179.65	184.55
Munich Reinsurance Company's market capitalisation at 31 December	€bn	38.0	28.5	28.0	28.9	30.8
Carrying amount per share	€	215.32	180.86	185.19	200.86	188.40
Investments	€m	228,764	216,852	217,562	221,752	217,587
Insurance-related investments	€m	9,163	8,424	9,664	9,558	9,163
Equity	€m	30,576	26,500	28,198	31,785	30,966
Off-balance-sheet unrealised gains and losses[3]	€m	19,913	16,067	14,980	17,276	15,958
Net technical provisions	€m	217,941	208,270	205,754	202,240	198,455
Balance sheet total	€m	287,553	270,168	265,722	267,805	268,868
Staff at 31 December		39,662	41,410	42,410	43,428	43,554

Reinsurance

		2019	2018	2017	2016	2015
Gross premiums written	€m	33,807	31,286	31,569	31,463	
Investments (incl. insurance-related investments)	€m	92,429	85,605	85,804	91,928	
Net technical provisions	€m	77,166	72,407	68,109	67,067	
Major losses (net)	€m	–3,124	–2,152	–4,314	–1,542	–1,046
Natural catastrophe losses	€m	–2,053	–1,256	–3,678	–929	–149
Combined ratio property-casualty	%	101.0	99.4	114.1	95.7	89.7
Investment result	€m	3,233	2,543	2,760	2,275	
Consolidated result	€m	2,268	1,864	120	2,540	
Thereof: Reinsurance – Life and Health	€m	706	729	596	515	
Thereof: Reinsurance – Property-casualty	€m	1,562	1,135	–476	2,025	2,915

ERGO

		2019	2018	2017	2016	2015
Gross premiums written	€m	17,650	17,778	17,546	17,388	
Investments (incl. insurance-related investments)	€m	145,497	139,671	141,422	139,383	
Net technical provisions	€m	140,776	135,863	137,645	135,173	
Combined ratio property-casualty Germany	%	92.3	96.0	97.5	97.0	97.9
Combined ratio International	%	94.3	94.6	95.3	98.0	
Investment result	€m	4,504	3,983	4,851	5,291	
Consolidated result	€m	440	412	273	41	
Thereof: Life and Health Germany	€m	187	264	175	114	–329
Thereof: Property-casualty Germany	€m	148	45	57	–72	214
Thereof: International	€m	105	103	40	–1	

1 You will find this information as a downloadable Excel file in the financial supplement under www.munichre.com/results-reports.
2 Subject to approval by the Annual General Meeting.
3 Including those apportionable to minority interests and policyholders.

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More detailed lists of contents are provided on the pages separating the individual sections.

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,

The past year has been a successful one for the Group – Munich Re generated a profit of €2.7bn in 2019. We increased our results once again, and exceeded our profit target of €2.5bn. We want you, our shareholders, to benefit from this success through an increased dividend – and so we are proposing that the Annual General Meeting approve a dividend increase to €9.80 per share.

Your company's shares continue to provide you with strong and sustained returns. Our Total Shareholder Return continued to rank among the best in the world in 2019 in comparison with the seven leading reinsurers and European primary insurers. At the same time, Munich Re is an attractive and sustainable investment because we systematically integrate environmental, social and governance aspects into our value creation.

A central pillar here is our climate strategy. We have undertaken to make our investment portfolio climate-neutral by 2050, in line with the target of the Paris Agreement to limit the global temperature increase to 1.5°C. Munich Re has joined the Net-Zero Asset Owner Alliance under the leadership of the United Nations, in which we are working together with institutional investors with over US$ 4 trillion in assets under management.

We see an important leverage effect for climate protection in the breakthrough of new technologies for a low-carbon economy – in electricity generation, transport, energy storage and industrial production. Here, too, we are taking responsibility. We offer innovative insurance solutions, and shoulder some special risks – such as offering performance guarantees for battery storage systems and photovoltaic systems.

But that alone is not enough – there must be monetary incentives to avoid carbon emissions. In all sectors of the economy, there should be a clear price to pay for emitting greenhouses gases. At the same time, investments need a stable and reliable environment in order to generate sufficient amounts of affordable renewable energy. Provided that governments make wise and far-sighted decisions about these rules, the market economy will become the driving force behind the energy transformation necessary to protect the climate.

Strategically and financially, our Group is well on course. And it continues to gain momentum towards achieving the profit target of €2.8bn for 2020 that we set in our multi-year ambition 2018–2020. We are driving digital transformation, reducing complexity, and growing profitably. The strategic focus is working, and is paying off.

We are becoming more digital, faster, and more flexible. Our units Munich Re New Ventures and Digital Partners are opening up new digital market access for Munich Re. Digital Partners is working with numerous young, digital start-ups. Back in 2016, we established a relationship of trust and confidence with the Californian start-up Next Insurance, and we support it by providing services and assuming risks; we have also held shares in this company for several years via Munich Re Ventures.

This approach has paid off: last year we acquired further shares worth US$ 250m in Next Insurance. Once the transaction is completed, we will own almost 30% of the company which offers customised digital insurance solutions to small and medium-sized companies in the US market. This joint venture allows us to participate in a high-margin market segment with a premium volume of around US$ 140bn per year. By tapping into an identified target market through modern online sales, we are advancing our Group strategically.

Another area we are working on is the development of digital services: With a new online platform, we are giving life insurers the opportunity to clarify medical queries in the application process digitally. The quality of the collected data can thus be improved, and processing time reduced by up to 90%. At the same time, we provide software solutions that insurers can comfortably integrate into their IT systems, thereby reducing the length of the application process by up to two thirds.

We are also digitally enhancing our core competences. We are investing in data analytics and artificial intelligence in order to support our clients in a targeted manner – for instance, in identifying loss drivers for water-mains damage, which accounts for around half of all losses in traditional residential building insurance. We help motor insurers to forecast future losses more precisely and to significantly lower their loss ratios with the help of machine learning that takes account of external weather data, accident statistics and socioeconomic data.

We are also working on improving the quality and speed of our processes. ERGO has automated many of these in order to offer customers optimal service. The number of robotics applications that support staff in their daily work has risen significantly. Customer requests are now handled more quickly: we have halved the average processing time of applications in the life segment.

We are opening up new digital fields of business in the Internet of Things: We are setting up a company with sports-car manufacturer Porsche and its consultancy subsidiary MHP to offer digital, flexible production concepts and software solutions. It will allow industrial customers to develop innovations more quickly by means of very small but economical production runs – with minimum capital requirements and reduced investment risk.

ERGO has entered into a partnership with the Chinese automobile manufacturer Great Wall Motors. The joint aim is to establish a leading company for technology- and data-driven mobility solutions in the Chinese market, and to sell insurance, including through our trading partner Great Wall's business partners.

These initiatives and efforts emphasise Munich Re's commitment to being the leading provider of digital insurance solutions. This allows us to consolidate our existing business, broaden the Group's profit base in the long term, and bolster our competitive position.

We are reducing complexity. Munich Re is now more focused and efficient than ever. ERGO has successfully sold 18 smaller international companies, in order to sharpen its focus on relevant core markets. In reinsurance, we have increased our impact in industry business by bundling facultative reinsurance units and direct industry business in a single global unit. We are doing more business with fewer resources and – through lower costs – opening up additional scope for investing in digitalisation and new areas of business.

We are earning higher revenues. Once again, we succeeded in increasing our profits and we also exceeded our profit guidance. Our primary insurer ERGO continued its upward trajectory and managed to beat its profit target. The basis for this success has been consistent implementation of the Strategy Programme launched in 2016. We have successfully implemented our growth initiatives in the reinsurance field of business – including in the USA, Asia and in the cyber risk market, which continues to grow. Here, too, we have beaten our target, despite high natural catastrophe losses in the second half of the year, due in part to the typhoons Hagibis and Faxai in Japan.

In 2020, we seek to increase our profits to around €2.8bn – with €2.3bn coming from reinsurance, and more than €500m from ERGO. In reinsurance, we will foster our growth initiatives; ERGO will continue with the successful path of its Strategy Programme. In addition, the ongoing optimisation of our investments will drive profits. In increasingly difficult capital markets, since the appointment of our Chief Investment Officer we have made the Group's investment process more stringent and have geared it to further enhancing the risk-return profile of our portfolio.

On our journey to make Munich Re more profitable, more lean and more digital, we took great steps forwards last year. I would like to thank you personally for your support – along with our 39,000 staff members around the world.

Yours sincerely,

Joachim Wenning

Corporate governance

Dr. Nikolaus von Bomhard
Chairman of the Supervisory Board

Ladies and Gentlemen,

In the 2019 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. All members of the Supervisory Board and of the committees took part in over half of the respective meetings. In fact, the overall attendance for all members of the Supervisory Board was 100% in the reporting year. (For an overview on attendance of Supervisory Board Members at meetings of the Supervisory Board and at committee meetings, please refer to page 15 and www.munichre.com/supervisory-board.)

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 developments during the renewals of property-casualty reinsurance treaties, the results of electing employee representatives to the Supervisory Board pursuant to the Co-Determination Agreement, and the decision regarding the investment by ERGO Group AG in the US start-up Next Insurance, Inc. 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, Bernd Pischetsrieder (until 30 April 2019) and I (from 30 April 2019) held regular discussions with the Chairman of the Board of Management, Joachim Wenning. We discussed questions of strategic orientation, risk management, compliance and Munich Re's current business situation. Also between meetings, the Chairman of the Audit Committee – Henning Kagermann until 30 April 2019 and Maximilian Zimmerer from 30 April 2019 – remained in close contact with Christoph Jurecka, the member of the Board of Management responsible for Group reporting.

Focal points of the meetings of the full Supervisory Board

There were six meetings of the Supervisory Board in the year under review. 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. 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 and investment strategies. The Supervisory Board also met regularly without the Board of Management. In addition to the above-mentioned issues, we dealt with the following topics at the individual meetings in 2019:

The meeting on 19 March focused among other things on the Company and Group financial statements for 2018, the combined management report, the separate Non-Financial (Group) Statement for 2018 and the Supervisory Board's motions for resolution by the 2019 Annual General Meeting. Furthermore, we conferred and took decisions regarding the evaluation of the 2018 annual bonuses and the consequent bonus payments to the individual members of the Board of Management. We also adopted a resolution on the change to the Board of Management's rules of procedure that had become necessary when the Board of Management was expanded to include the additional position of Chief Investment Officer. In addition, we considered reports on the Compliance Management System (CMS) and examined the implementation status of the ERGO Strategy Programme. Representatives of the German Federal Financial Supervisory Authority (BaFin) attended this meeting as guests as a matter of routine.

The meeting on 29 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 2016–2018. In consideration of the composition of the Board from 30 April 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 Munich Re. Despite numerous new members having been elected to the Supervisory Board, it was possible to retain the previous year's good level of collective expertise on the Supervisory Board. The Supervisory Board thus possesses the appropriate diversity of qualifications, knowledge and experience to provide advice and supervision to Munich Re in a professional manner, taking account of the characteristics specific to the Company and the Group. Moreover, we received the Board of Management's report on the status of business performance in 2019. We also used the meeting to make last-minute preparations for the Annual General Meeting, which was held the next day.

Following the Annual General Meeting on 30 April 2019, there was a constituent meeting of the new Supervisory Board in which we held the election for the Chairman of the Supervisory Board and the Deputy Chair, and the election for members and chairs of the six Supervisory Board Committees.

On 16 July, we discussed in particular the planning for development of Munich Re's strategy and the Group's position with regard to the challenges posed by climate change. We were also informed about the projects to introduce the updated accounting standards IFRS 9 and IFRS 17.

On 16 October, the agenda included corporate governance issues: the resolutions concerning the Declaration of Conformity with the German Corporate Governance Code and the results of the year's efficiency review. Other topics covered included the submission of the Group-wide remuneration report for the 2018 financial year in line with Solvency II and the Remuneration Regulation for Insurance Companies (VersVergV). The Board of Management also informed us about the investment strategy under the new Chief Investment Officer appointed in the spring, and about the development of reinsurance business in North America. We also received information about significant changes affecting the Supervisory Board as a consequence of the new version of the German Corporate Governance Code and the Act Implementing the Second Shareholders' Rights Directive (ARUG II).

On 11 December, we made a decision about a change to the Board of Management. We also discussed and made a decision about the extension of an appointment to the Board of Management. Furthermore, we established the amount of remuneration for the Board of Management from 2020, as well as the assessment basis for variable remuneration for 2020. In preparation for ARUG II and the reform of the German Corporate Governance Code, and in order to enable flexible committee work, we decided to make changes to the rules of procedure for the Supervisory Board and the Audit Committee. In this regard, we transferred responsibility in accordance with Section 111a(2) of the Stock Corporation Act (AktG) to the Standing Committee to set up an internal procedure to assess whether related party transactions are entered into in the ordinary course of business and concluded on normal market terms. We also slightly extended the catalogue of business transactions that require the approval of the Supervisory Board. In addition, we looked into the Group's risk strategy in the course of the report on Munich Re's risk situation by the Group Chief Risk Officer. Furthermore, the Board of Management reported on Group planning for the 2020 financial year, presented us with the Group human resources report, and explained the focus of human resources work in the Group. It also informed us about the Group's IT strategy.

By way of a resolution adopted by written consent, the IFRS Group target for the 2019 annual bonus decided by the Supervisory Board in December 2018 was approved in February 2019.

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 on pages 18 ff. and on our website at www.munichre.com/supervisory-board.

The Personnel Committee held five meetings in the period under review. 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 is the assessment of fitness and propriety requisite for the new appointment of a member of the Board of Management and the extension of the appointment of a member 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. It also dealt with Group-wide succession planning, especially with regard to Board-level appointments. Furthermore, the Personnel Committee decided to abolish the existing framework for deferred compensation at the end of 2019 and to introduce a new system with effect from 1 April 2020.

The Remuneration Committee met five times in the period under review. 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 amount of remuneration, the establishment of the assessment basis for variable remuneration and the corresponding evaluation, as well as the sections of the Board members' contracts relating to remuneration. In addition, it looked at current trends and developments regarding the company pension scheme for members of the Board of Management. In addition, it dealt with the fringe benefits for members of the Board of Management disclosed in the 2018 Group Annual Report.

At its four meetings, the Standing Committee dealt with the preparation of the respective Supervisory Board meetings and, in particular, with topics of corporate governance. In addition, the Standing Committee once again carried out a review of the efficiency of the Supervisory Board's work, and determined that overall the reporting by the Board of Management and the work of the Supervisory Board was efficient and appropriate. The Chairman of the Board of Management regularly provided information about the shareholder structure and the status of the share buy-back programme. The Standing Committee also dealt intensively with the separate Non-Financial (Group) Statement for 2018. On the basis of a corresponding resolution adopted by the full Supervisory Board, the Standing Committee commissioned Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft (EY), Munich, to perform a limited assurance engagement on the separate Non-Financial (Group) Statement for the 2019 financial year.

The Audit Committee held six meetings in the period under review. Five of these meetings were attended by the external auditor. In its meetings in February and March 2019, 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 2018 financial year. The Committee also discussed in detail the material information underlying the quarterly reports for Q1 and

Q3 2019, and together with the auditor examined in detail the 2019 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. The Head of the Actuarial Function presented the report of the actuarial function of Munich Re (Group) at one Committee meeting. Further issues discussed regularly were the internal control system and compliance topics. The Group Chief Auditor informed the members of the Committee in full about the outcome of the audits for 2018 and the audit planning for 2019. The Committee received regular 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 auditor on a regular basis. In addition, the Audit Committee and the external auditor 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 new activities beyond the auditing of the annual financial statements and on the utilisation of the statutory limit for awarding such contracts. The auditor presented the Audit Committee with explanations of the key audit matters for the 2019 financial year. The Audit Committee also prepared a report for the full Supervisory Board on the appointment of the external auditor for the 2019 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 KPMG Bayerische Treuhandgesellschaft Aktiengesellschaft Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft (KPMG), Munich, with the audit for the 2019 financial year, and also commissioned the auditor's review of the 2019 Half-Year Financial Report.

In addition, EY, which was selected as part of the invitation to tender for the audit mandate from the 2020 financial year, introduced itself and reported on the status of preparations for the change of auditor.

The Nomination Committee held two meetings in the period under review. After having already dealt intensively with succession planning for the Supervisory Board in six meetings in 2018, it handled the re-election of eight shareholder representatives and the election of two new candidates to the Supervisory Board in preparation for the Annual General Meeting on 30 April 2019. It also discussed the succession of the Chairman of the Supervisory Board and the Chair of the Audit Committee, and dealt with the future composition of the Supervisory Board committees. The Nomination Committee also intensively discussed the medium-term succession planning on the Supervisory Board.

There was again no need to convene the Conference Committee in the 2019 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 2019. The Company has complied and intends to continue to comply with all of the recommendations of the German Corporate Governance Code as amended on 7 February 2017. We confirmed our assessment that all 20 members of the Supervisory Board are to be regarded as independent and that they do not have any relevant conflicts of interests.

For details, see the Statement of Corporate Governance on pages 16 ff.

Munich Re hosted an introductory event for new members of the Supervisory Board, where experts gave presentations on the topics corporate governance, Board remuneration, investments, accounting and risk management. In addition, members of the Supervisory Board were also offered an internal information event in 2019 by way of further training. Almost all took the opportunity to learn more about selected topics in the areas of reinsurance, Group controlling, and big data. 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 selected informational material to prepare for their new role.

In our role as Chairman of the Supervisory Board, Bernd Pischetsrieder (until 30 April 2019) and I (from 30 April 2019) 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 held by Dr. Pischetsrieder was the election of shareholder representatives to the Supervisory Board by the 2019 Annual General Meeting. The discussions that I held served primarily to exchange information across the full range of topics falling within the responsibility of the Supervisory Board.

Changes on the Board of Management

The Company's Board of Management was expanded with effect from 18 March 2019 to include the position of Chief Investment Officer. In this function, Nicholas Gartside is responsible for all of the asset management of Munich Re (Group).

For personal reasons, Hermann Pohlchristoph is not extending his appointment that expires on 30 April 2020, and will leave the Company. Achim Kassow has been appointed as his successor with effect from 1 May 2020, and he will take over responsibility for the Asia Pacific and Africa division and for the central divisions Central Procurement and Services.

Changes on the Supervisory Board

The term of office of the Supervisory Board members expired at the end of the Annual General Meeting on 30 April 2019. The shareholder representatives Bernd Pischetsrieder and Henning Kagermann left the Supervisory Board. We would like to thank Dr. Pischetsrieder for his immense commitment to Munich Re during his 17 years as a member of the Supervisory Board, including six years as Chairman. During this time, he successfully monitored and supervised Munich Re with great responsibility and foresight. We would also like to express our thanks to Professor Kagermann for his many years of valuable and constructive support, especially during his time as Chairman of the Audit Committee.

Christian Fuhrmann, Marco Nörenberg, Andrés Ruiz Feger, Ina Hosenfelder, Beate Mensch and Angelika Wirtz stepped down from their roles as employee representatives on the Supervisory Board. The Supervisory Board would like to thank all departing members for their expert advice, with which they accompanied and supervised Munich Re in a committed manner, in some cases over many years.

Karl-Heinz Streibich and I were newly elected to the Supervisory Board by the Annual General Meeting. On the basis of the Co-Determination Agreement, Ruth Brown, Stephan Eberl, Eva-Maria Haiduk, Stefan Kaindl, Gabriele Mücke and Manfred Rassy were elected to the Supervisory Board by the responsible bodies. The periods of office of the new and re-elected members of the Supervisory Board commenced at the end of the Annual General Meeting.

Further general information on corporate governance can be found in the Statement of Corporate Governance on pages 16 ff.

Company and Group financial statements for 2019, Solvency II reporting and non-financial information

The auditor KPMG duly audited the annual financial statements of Munich Reinsurance Company, the Group financial statements and the combined management report as at 31 December 2019, and issued them with an unqualified auditor's opinion. The German Public Auditor responsible for the engagement is Dr. Frank Ellenbürger. He first took charge of the audit of the Company and Group financial statements for the financial year ending 31 December 2013.

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 21 February 2020, the Audit Committee intensively discussed the preliminary year-end figures as at 31 December 2019, along with the Board of Management's proposal for appropriation of the net retained profits. At its meeting on 26 February 2020, the Supervisory Board also intensively discussed the preliminary year-end figures as at 31 December 2019, along with the Board of Management's proposal for appropriation of the net retained profits. On 16 March 2020, 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 in advance. It discussed these at length with the external auditor 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. 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 17 March 2020 in the presence of the external auditor. The auditor reported on the scope, the main points, and the key results of the audit, going into particular detail on the key audit (please refer to the auditor's report on page 185) 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 17 March 2020. 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.

The Standing Committee received the separate Non-Financial (Group) Statement for the 2019 financial year. The Standing Committee considered the Statement on 17 March 2020. Also on 17 March 2020, the full Supervisory Board examined the separate Non-Financial (Group) Statement, taking due consideration of the external auditor's findings, and approved it.

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 successful result for Munich Re.

Munich, 17 March 2020

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 2019

Members of the Supervisory Board	Supervisory Board	Participation quota Supervisory Board	Personnel Committee	Remuneration Committee	Standing Committee	Audit Committee	Nomination Committee
Bernd Pischetsrieder[1]	2/2	100%	3/3	3/3	1/1	2/2	1/1
Nikolaus von Bomhard[2]	4/4	100%	2/2		3/3	4/4	1/1
Marco Nörenberg[1]	2/2	100%			1/1		
Anne Horstmann	6/6	100%			3/3	2/2	
Ann-Kristin Achleitner	6/6	100%		5/5		6/6	2/2
Kurt Wilhelm Bock	6/6	100%			3/3		1/1
Clement Booth	6/6	100%					
Ruth Brown[2]	4/4	100%					
Stephan Eberl[2]	4/4	100%	2/2	2/2	3/3		
Frank Fassin	6/6	100%					
Benita Ferrero-Waldner	6/6	100%					
Christian Fuhrmann[1]	2/2	100%				2/2	
Ursula Gather	6/6	100%					
Gerd Häusler	6/6	100%			4/4		
Eva-Maria Haiduk[2]	4/4	100%				2/2	
Ina Hosenfelder[1]	2/2	100%			4/4		
Renata Jungo Brüngger	6/6	100%	2/2	2/2			
Henning Kagermann[1]	2/2	100%	3/3		1/1	2/2	1/1
Stefan Kaindl[2]	4/4	100%				4/4	
Beate Mensch[1]	2/2	100%					
Gabriele Mücke[2]	4/4	100%					
Ulrich Plottke	6/6	100%				4/4	
Manfred Rassy[2]	4/4	100%					
Andrés Ruiz Feger[1]	2/2	100%			1/1		
Gabriele Sinz-Toporzysek	6/6	100%					
Karl-Heinz Streibich[2]	4/4	100%					
Angelika Wirtz[1]	2/2	100%	3/3	3/3			
Maximilian Zimmerer	6/6	100%				4/4	
Participation quota (average)		**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

1 Member of the Supervisory Board until 30 April 2019.
2 Member of the Supervisory Board from 30 April 2019.

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

including corporate governance reporting

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 includes corporate governance reporting within the meaning of the German Corporate Governance Code in the version dated 7 February 2017 (published on 24 April 2017). The remuneration report can be found on pages 36 ff. 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.

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)

Since issuing its last Declaration of Conformity in November 2018, Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München has complied and intends to continue to comply with all of the recommendations of the German Corporate Governance Code as amended on 7 February 2017 (published on 24 April 2017).

Munich, November 2019

The Board of Management The Supervisory Board

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. With the aim of making it easier for shareholders to take part and exercise their voting rights, the Company offers the possibility of postal and electronic voting as well as online participation in the Annual General Meeting.

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. Shareholders who are unable or do not wish to attend the Annual General Meeting in person 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 to the Company proxies via the internet. In addition, shareholders may watch the whole Annual General Meeting live on the internet and change their instructions right up to the end of the general debate – provided they have issued power of attorney to the Company proxies.

1 The Statement on Corporate Governance, including corporate governance reporting, is part of the combined management report and was not audited.

Board of Management

In 2019, the Board of Management of Munich Reinsurance Company initially comprised eight members, and from 18 March 2019 there were nine members; there is one woman on the Board. The members of the Board of Management and their divisional responsibilities can be found on page 24.

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 draws up Group-wide compliance rules 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.

The composition of these committees can be found on page 25.

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 Investment Committee and the Group Risk Committee; the Reinsurance Committee has set up the Global Underwriting and Risk Committee as well as the Board Committee IT Investments. The members of these subcommittees also include other Board members and other senior executives from Munich Reinsurance Company and the Group. Only members of the Board of Management that are members of the main committee have voting rights on these subcommittees.

The work of these subcommittees is governed by their own written rules of procedure. The Group Investment Committee is responsible for substantiating investment principles for the Group and the fields of business, and for other important issues in relation to investments. 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.

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. Specific types of transaction, such as certain investments and divestments, require the Supervisory Board’s consent. The Supervisory Board’s approval is also required for sideline activities assumed by members of the Board of Management, and (within the scope of the German Corporate Governance Code) for important transactions involving members of the Board of Management or persons or undertakings closely associated with them.

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.

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 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 should also meet 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 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.

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 Chairman of the Supervisory Board 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.

The composition of the committees appears on page 28.

Further details of the work of the Supervisory Board committees can be found in the report of the Supervisory Board on pages 11 f. 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. 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 – including the corporate governance reporting for the Supervisory Board. It also prepares the annual review of the efficiency of the Supervisory Board and its committees. Further details about the efficiency review of the past financial year can be found on page 11 of the Report of the Supervisory Board. The Standing Committee is also responsible for preparing the Supervisory Board's review of the separate non-financial reporting. This includes preparing the selection and appointment of the auditor for a voluntary external audit of the separate (combined) non-financial statement.

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 material information underlying the Half-Year Financial Report and 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, determines focal points of the audits and agrees the auditor's fee for the annual audit; 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 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 Committee has developed and adopted a list of criteria for the selection of suitable candidates for the Supervisory Board. It 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 of 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, and we report annually on adherence to these principles.

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 31 December 2019, the percentage of women on the Board of Management was 11.1%. The Supervisory Board is retaining its target of a quota of at least 20% to be achieved by 31 December 2020.

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 are to be achieved by 31 December 2020.

The Supervisory Board and Board of Management based these targets on the proportions of women at the respective management levels when the targets were set. Where the Act on Equal Participation of Men and Women in Private-Sector and Public-Sector Management Positions is applicable to Group companies, the target figures for the proportion of women are generally also based on the status quo at the beginning of the period. As a general principle, 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 the Act and internal criteria, 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 2019, 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 "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 field of business 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, and physics). 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 2019 financial year was 53; the youngest Board member is 44, and the oldest is 59. 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 for a maximum 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 and competences

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 "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 the following objectives concerning its composition and has defined requirements (list of criteria) regarding the competencies of its members:

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 list of criteria 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 independent 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 list of criteria 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.

The Nomination Committee of the Supervisory Board selects candidates for the shareholder representatives based on this list of criteria, 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 list of criteria, 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, and commercial and insurance-specific training). The Supervisory Board members also have management experience in various sectors (such as finance and insurance, IT, chemicals, the automobile industry), and extensive experience in academia and politics. 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 2019 financial year was 60; the youngest Board member is 49, and the oldest is 71. There is therefore a sufficient age mix on the Supervisory Board. One member of the Supervisory Board, Benita Ferrero-Waldner, has exceeded the age limit. On the basis of her expertise and after careful consideration of the circumstances in the individual case, the Supervisory Board has determined a justified exception to the target age limit in her case.

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

Independence

In implementing the German Corporate Governance Code, the Supervisory Board has also set the objective of having at least 16 independent members within the meaning of section 5.4.2 of the Code, of which at least eight must be shareholder representatives. Members of the Supervisory Board must have no relevant conflicts of interest.

During the selection process, great value is placed on the independence of the candidates. Taking into account the ownership structure, the Board is of the opinion that all 20 members meet the independence criteria within the meaning of section 5.4.2 of the Code. The Supervisory Board is not aware of any business or personal relationship between a member and the Company, its governing bodies, a controlling shareholder or an entity affiliated with such a shareholder, as a result of which a major and not only temporary conflict of interest could arise. Under this definition, the Supervisory Board assumes that the employee representatives on the Supervisory Board elected in accordance with the Act on the Co-Determination of Employees in Cross-Border Mergers (MgVG) and the Co-Determination Agreement are independent as a matter of principle.

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 Holdings (until 17 March 2019) 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, Düsseldorf[2] (Chair)	–
Dr. Thomas Blunck Life and Health Capital Partners Digital Partners Reinsurance Investments (until 17 March 2019)	–	–
Nicholas Gartside (since 18 March 2019) Chief Investment Officer Group Investments Third Party Asset Management	MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH, Munich[2] (Chair)	–
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 (since 1 April 2019) Corporate Underwriting Claims Accounting, Controlling and Central Reserving for Reinsurance Information Technology	ERGO Digital Ventures AG, Düsseldorf[2] ERGO International AG, Düsseldorf[2]	–
Dr. Christoph Jurecka Chief Financial Officer Financial and Regulatory Reporting Group Controlling Integrated Risk Management Group Taxation Investor and Rating Agency Relations	MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH, Munich[2]	–
Hermann Pohlchristoph Asia Pacific and Africa Central Procurement Services	ERGO International AG, Düsseldorf[2]	–
Dr. Markus Rieß Primary Insurance/ERGO Third Party Asset Management (until 17 March 2019)	ERGO International AG, Düsseldorf[2] (Chair) ERGO Digital Ventures AG, Düsseldorf[2] (Chair) ERGO Deutschland AG, Düsseldorf[2] (Chair) ERGO Technology & Services Management AG, Düsseldorf[2] (Chair)	–
Dr. Peter Röder Global Clients and North America	EXTREMUS Versicherungs-AG, Cologne	Munich Re America Corporation, USA[2] (Chair) Munich Reinsurance America Inc., USA[2] (Chair)

1 As at 31 December 2019.
2 Mandate within Munich Re (Group).
3 Including responsibility for environmental, social and governance (ESG) issues.

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 Dr. Doris Höpke Hermann Pohlchristoph Dr. Peter Röder 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

Subcommittees of the Board of Management Committees[1]

Group Investment Committee	Dr. Joachim Wenning (Chair) Dr. Christoph Jurecka Nicholas Gartside[2] Chief Risk Officer (Group)[2]
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 Dr. Peter Röder Chief Financial Officer for the reinsurance field of business[2] Chief Risk Officer (Group)[2] Head of ALM (Asset Liability Management)[2] Head of CU (Corporate Underwriting)[2]
Board Committee IT Investments	Dr. Torsten Jeworrek (Chair) Dr. Thomas Blunck Hermann Pohlchristoph Chief Financial Officer for the reinsurance field of business[2]

1 As at 31 December 2019.
2 No voting rights.

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

Members 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, Bonn (Chair)[4]	Athora Holding Ltd., Bermuda (Chair)[6]
Dr. Anne Horstmann[2] (Deputy Chair) Employee of ERGO Group AG Member since 30 April 2014	ERGO Group AG, Düsseldorf[3]	–
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]
Dr. Kurt Wilhelm Bock Member of the Supervisory Board of Munich Reinsurance Company Member since 25 April 2018	Fresenius Management SE, Bad Homburg[6] Bayerische Motorenwerke AG, Munich[4] Fuchs Petrolub SE, Mannheim (Chair)[4]	–
Clement B. Booth Member of the Board of Directors of Hyperion Insurance Group, United Kingdom Member since 27 April 2016	Euroassekuranz Versicherungs-makler AG, Regensburg (Chair)[6]	Hyperion Insurance Group Ltd., 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, Düsseldorf[3] Provinzial NordWest Holding AG, Münster	
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 Rector of TU Dortmund University Member since 30 April 2014	thyssenkrupp AG, Essen[4]	–
Gerd Häusler Member of the Supervisory Board of Auto1 Group SE, Munich Member since 30 April 2014	Auto1 Group SE, Munich	–
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 table on next page for footnotes.

Members 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, Düsseldorf[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	ERGO Beratung und Vertrieb AG, Düsseldorf[3]	–
Karl-Heinz Streibich Co-President of acatech – German Academy of Science and Engineering Member since 30 April 2019	Dürr AG, Bietigheim-Bissingen (Chair)[4] Siemens Healthineers AG, Munich[4] Deutsche Telekom AG, Bonn[4]	–
Dr. Maximilian Zimmerer Member of the Supervisory Board of Munich Reinsurance Company Member since 4 July 2017	Deutsche Beteiligungs AG, Frankfurt[4] Investmentaktiengesellschaft für langfristige Investoren TGV, Bonn (Chair)[6]	Möller & Förster GmbH & Co. KG, Hamburg (Chair of Advisory Council)[5,6]
Christian Fuhrmann[2] Head of Divisional Unit at Munich Reinsurance Company Member from 22 April 2009 to 30 April 2019	–	–
Ina Hosenfelder[2] Employee of ERGO Group AG Member from 30 April 2014 to 30 April 2019	–	–
Prof. Dr. Dr. E.h. Henning Kagermann Chair of the Board of Trustees of acatech – German Academy of Science and Engineering Member from 22 July 1999 to 30 April 2019	Deutsche Post AG, Bonn[4] KUKA AG, Augsburg[4]	–
Beate Mensch[2] Trades Union Secretary, ver.di, Hessen Member from 30 April 2014 to 30 April 2019	–	–
Marco Nörenberg[2] Employee of ERGO Group AG Member from 22 April 2009 to 30 April 2019	ERGO Group AG, Düsseldorf[3]	–
Dr. E.h. Bernd Pischetsrieder Chairman of the Supervisory Board of Munich Reinsurance Company Member from 17 April 2002 to 30 April 2019	Daimler AG, Stuttgart[4]	Tetra Laval Group, Switzerland
Andrés Ruiz Feger[2] Employee of Munich Re, Sucursal en España, Spain Member from 22 April 2009 to 30 April 2019	–	–
Angelika Wirtz[2] Employee of Munich Reinsurance Company Member from 30 April 2014 to 30 April 2019	–	–

1 As at 31 December 2019 (former members: as at 30 April 2019).
2 Employee representatives.
3 Mandate within Munich Re (Group).
4 Listed on the stock exchange.
5 Membership of a non-statutory supervisory board.
6 Company with fewer than 500 employees.

Composition of the Supervisory Board committees[1]

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

1 As at 31 December 2019.

Combined management report

This report combines the management reports of Munich Reinsurance Company and 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. In this context, dealing with the consequences of climate change, increasing digitalisation and strengthening of risk awareness constitute Munich Re's main objectives.

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. Climate change constitutes one of the greatest challenges for humanity, and demands decisive action right now in order to limit global warming to less than 2°C. Munich Re is also committed to achieving this goal set by the Paris Climate Change Conference, and undertakes to make its own, independent contribution to combating climate change (for example, by investing in renewable energies or supporting new technologies by means of new risk covers).

We see our main contribution to fighting the effects of climate change in 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 technology-specific risks. At the same time, we support the aim of no longer insuring coal extraction, coal-based electricity generation or oil sand extraction – assuming any individual risks are known. Furthermore, we avoid investing in securities that generate more than 30% of their earnings from coal or more than 10% of their earnings from oil sand extraction.

In addition to this underlying philosophy, we also actively involve our investors, clients and staff in stakeholder dialogue about our corporate responsibility strategy. One topic that is becoming increasingly important is digitalisation, which 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 – for example, by developing innovative products and services related to the Internet of Things. To achieve this, we have been making use of strategic alliances.

Our voluntary commitments to covenants such as the United Nations Global Compact, the Principles for Responsible Investment (PRI), and the Principles for Sustainable Insurance (PSI) constitute the basis underlying all 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).

In our estimation, the talent and performance of our staff are the keystones to Munich Re's long-term success. Our international and diversity-focused human resources work sets great store by a corporate and leadership culture which promotes motivation and innovation in our highly qualified staff members.

As at 31 December 2019, our Group employed 39,662 (41,410) staff members worldwide, 31.2% (29.8%) of whom work in reinsurance and 68.8% (70.2%) at ERGO.

The non-financial reporting requirements of the European Union's Corporate Social Responsibility (CSR) Directive have been transposed into the German Commercial Code (HGB). The following have been identified as aspects to be reported for Munich Re and Munich Reinsurance Company within the meaning of the legal requirements:

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

The "corporate responsibility in insurance" and "corporate responsibility in investment" sections include information on the statutory aspects of environmental protection, social factors and human rights. The separate non-financial (Group) statement prepared in accordance with Sections 289b(3) and 315b(3) of the German Commercial Code (HGB) can be found at www.munichre.com/cnfs in the information on corporate governance.

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.

Segmentation

In ERGO, we combine all of 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, China, and Thailand.

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. We have concentrated our efforts in this field on the United Kingdom, but are also closely monitoring other markets.

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. Since 2017, we also have a branch in India. 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 we pooled in our new Facultative & Corporate unit last year.

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 and realigned the activities of various specialty insurers in commercial primary insurance business in the North American market within Munich Re Specialty Insurance (MRSI). This measure enables us to leverage synergies and 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 leaving the European Union.

The Asia Pacific and Africa Division conducts property-casualty business with our clients in Africa, Asia, Australia, New Zealand and the Pacific Islands. Branches in Mumbai, Beijing, Seoul, Singapore, Sydney and Tokyo 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. German business is concentrated in ERGO Deutschland AG. ERGO International AG manages the ERGO Group's international business. ERGO Digital Ventures AG is responsible for digital and direct business of the Group, while ERGO Technology & Service Management AG is increasingly managing all of the Group's 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 private and corporate clients. ERGO serves around 37 million clients, most of them private, in more than 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. As a specialist in capital-market-oriented insurance, ERGO Vorsorge Lebensversicherung AG is shaping change in the area of private provision and biometric risk products. ERGO Lebensversicherung AG and Victoria Lebensversicherung AG are responsible for running off our traditional life insurance portfolio. DKV Deutsche Krankenversicherung AG is a leading provider and specialist in the healthcare market, catering to both privately and statutorily insured individuals with its broad range of supplementary insurance covers. 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. Both operations continued to develop in 2019 – in particular with regard to digitalisation and implementation of the new business model "Hybrid customers". Today's clients are the focus of the new business model, and can choose from the same range of products via all online and offline channels. ERGO is thus linking various channels, such as personal consultation, internet, chat, email, telephone or even video consultation.

ERGO Digital Ventures AG is responsible for digital transformation in the ERGO Group, and provides support via innovative sales channels, manages the fully digital player nexible, and is setting up automated technologies such as artificial intelligence and robotics. Digital Ventures is also responsible for further developing international legal protection business, ERGO Reiseversicherung and ERGO Direkt property business, and driving ahead their digitalisation. ERGO Mobility Solutions, which was set up in 2017, addresses financial services for the automobile sector and seeks to establish partnerships with vehicle manufacturers and mobility service providers. It saw great success in 2019 – not least with the setting up of a joint venture with Great Wall Motors, one of the largest Chinese automobile manufacturers.

In Europe, ERGO is concentrating mainly on expanding its market presence in Poland, the Baltic States, Greece, Spain, Austria and Belgium. By way of example, ERGO is market leader in property-casualty business in Greece, and is number two in Poland. As experienced experts, our legal protection insurers number among the leading players in each of their markets.

In Asia, ERGO is represented through joint ventures in the rapidly growing markets of India and China, as well as in Thailand. 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. And in Thailand, too, our affiliate is performing well.

Digital transformation is also changing how we interact with customers. They demand excellent service online and offline, irrespective of the sales channel or product category – and they want the security of a strong brand. ERGO is making sure that it can meet these wishes and needs. The ERGO Group has made changes to its brand architecture, and positioned itself as a brand that offers most insurance products through all channels from a single source. Specifically, this means that in the course of 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.

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™

ERGO

ERGO

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

Asset management

MEAG MUNICH ERGO AssetManagement GmbH

The overview does not show all companies of the Group or give a precise representation. The detailed breakdown of participations can be seen in the list of shareholdings on pages 176 ff. In the course of 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 2020.

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.

Remuneration of the members of the Board of Management in 2019

The full Supervisory Board decides on the remuneration system for the Board of Management, and reviews it regularly. The Remuneration Committee, which is responsible for all remuneration matters of the members of the Board of Management, prepared the corresponding resolutions for the full Supervisory Board in the reporting year. The Remuneration Committee is composed of two independent shareholder representatives and one employee representative.

The Personnel Committee is responsible for preparing the full Supervisory Board's resolutions on all other personnel matters relating to the Board of Management, in particular appointing and dismissing Board members and concluding Board members' contracts. It is composed of the Chairman of the Supervisory Board and one representative each of the shareholders and employees.

The remuneration system introduced in 2018 meets 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 and 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 – individual and collective management performance – financial situation, performance and future prospects of the Company Loading/reduction of up to 20 percentage points
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	
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.

The equal shares of basic remuneration and variable remuneration provide for a balanced composition of overall remuneration as stipulated in the Solvency II regulations. In accordance with Solvency II, fixed and variable remuneration components must be in balance, so 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 should be no incentive for members of the Board of Management to engage in unreasonably 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 future performance.

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 our shareholders. Surpassing the performance of our 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 a loading or reduction 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 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 2019

A target of €2,500m was set for 2019, with the following linear scaling for the 0–200% target corridor:

€1,800m = 0% achievement of objective
€2,500m = 100% achievement of objective
€3,200m = 200% achievement of objective

Achievement of objectives in 2019

At its meeting in March 2020, the Supervisory Board decides about the achievement of objectives in 2019 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 could not be included in the remuneration report. However, it will be made available at www.munichre.com/board-of-management/remuneration on 18 March 2020.

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

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 the peer group. The companies in the peer 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 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 is established, and at the end of the scheme, the end TSR is computed and compared in order to determine achievement of the objective. 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 run-time of the deferred multi-year bonus takes account of the nature and time horizon 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 makes up only 15% 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, 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.

Contractual clawback provisions requiring reimbursement of variable remuneration components already paid out are triggered in the event of a serious breach of duty. All employment contracts of the members of the Board of Management include a provision according to which, in particular pursuant to Section 93 of the German Stock Corporation Act (AktG), a member of the Board of Management is required to reimburse the Company for any damage attributable to them as a result of a breach of duty.

The contractual indemnity provision protects the Company; it is designed to safeguard the Company's assets in the event of a serious breach of duty. In the Company's view, an additional clawback provision for bonuses already paid is therefore not required.

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 its variable components in accordance with the German Corporate Governance Code.

Share ownership of the members of the Board of Management

The current remuneration system does not require members of the Board of Management to invest in Company shares.

The TSR used in the multi-year bonus reflects the performance of Munich Re's shares, which ensures that the interests of the Board of Management are in line with those of our shareholders. From the Company's point of view, the continually increasing requirements in terms of insider trading law regarding the purchase and sale of shares and the rising number of inquiries – also in connection with share-based remuneration components – are compelling reasons to refrain from remuneration based on the obligation to purchase shares.

Most of the members of the Board of Management active in 2019 also hold a large number of Company shares. Moreover, participants in the multi-year performance plan 2017–2019, which will be paid out in 2020, are obliged to invest a portion of their bonus payments in Company shares.

Share ownership of the members of the Board of Management

Members of the Board of Management	Number of shares on 30.12.2019[1]	XETRA closing price on 30.12.2019[1]	Total value of shares on 30.12.2019[1]	Total value of shares in % of basic remuneration for 2019
		€	€	%
Joachim Wenning	11,732	263.00	3,085,516.00	139
Thomas Blunck	4,541	263.00	1,194,283.00	111
Nicholas Gartside (since 18 March 2019)	0	263.00	0.00	0
Doris Höpke	3,830	263.00	1,007,290.00	94
Torsten Jeworrek	3,994	263.00	1,050,422.00	68
Christoph Jurecka	3628	263.00	954,164.00	73
Hermann Pohlchristoph	223	263.00	58,649.00	5
Markus Rieß[2]	3,346	263.00	879,998.00	33
Peter Röder	5,510	263.00	1,449,130.00	135

1 Last trading day in 2019.
2 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.

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 twelve months and it is probable that they will be permanently unable to fully perform the duties conferred on them (permanent incapacity to work). In this event, the Board member will receive a disability pension.

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 of the Board of Management appointed before 1 January 2017 have no contractual right to severance payments. If the Board member's activities on the Board are terminated prematurely by the Company without good cause, payments due may not exceed the equivalent of two years' total remuneration (three years' total remuneration in the event of acquisition of a controlling interest or change of control within the meaning of Section 29(2) of the Securities Acquisition and Takeover Act – WpÜG) and may not cover more than the remaining period of the employment contract if this 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 is based on the overall remuneration for the past financial year and, if necessary, on the probable overall remuneration for the current financial year.

Members of the Board of Management appointed for the first time after 1 January 2017 whose contracts are terminated by the Company without good cause have a contractual right to a severance payment. Such payments may not exceed the equivalent of two years' total remuneration, and 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.

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 use the services of external consultants to draft or implement remuneration systems for the Board of Management.

Pensions

Up to and including 2008, the members of the Board of Management were members of a defined benefit plan, providing for payment of a fixed pension amount.

As of 2009, newly appointed members of the Board have become members of a defined contribution plan. For this plan, 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.

Members of the Board of Management appointed for the first time before 1 January 2019 are also members of the Munich Re pension scheme, which is a defined contribution plan.

Benefits on termination of employment

Board members appointed before 2006 who are entitled to an occupational pension, disability pension, or reduced occupational pension on early retirement receive a pension in the amount of their previous monthly basic remuneration for a period of six months after retiring or leaving the Company.

Occupational pension

Board members appointed for the first time before 1 April 2012 are entitled to an occupational pension on retiring from active service with the Company after reaching the age of 60. Board members appointed for the first time as from 1 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 their position for six months without interruption, as a result of illness, injury, or infirmity beyond what is normal for their 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

Board members appointed before 1 January 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 of the Board of Management appointed for the first time after 1 January 2017 do not have any entitlement 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 (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 was appointed to the Board of Management before 2006. In the case of Board members appointed for the first time as from 2006 and until 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 that were appointed for the first time before 2018 receive the previous monthly occupational pension for a period of three months, provided the marriage/registration of the civil partnership took place and/or the child was 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; half orphans receive 20% and full 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 is 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. It takes into consideration whether the remuneration is standard practice and appropriate compared with other companies of the peer group (including DAX 30 companies). The target overall direct remuneration for the Chairman of the Board of Management is based on the median remuneration paid to the chairs of the boards of management of DAX 30 companies. In addition, the Supervisory Board takes into account the level of the salaries paid to the Board of Management in relation to the level of salaries paid to senior managers and to general staff members over time.

Pay ratios
In the reporting year, the target overall direct remuneration of the Chairman of the Board of Management was 37 (38) 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 22 (24) 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 2019 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 Board resolution is already foreseeable. Under DRS 17, remuneration for multi-year performance 2016–2018 is recognised in the year of payment, i.e. in 2019.

Fixed and variable remuneration components
The serving members of Munich Reinsurance Company's Board of Management in 2019 received remuneration totalling €23.8m (17.4m) for fulfilment of their duties in respect of the parent company and its subsidiaries in the financial year. Total remuneration thus shows an increase of around €6.4m compared with the previous year's figure, which was adjusted for the remuneration of a Board member who left the Board at the end of 31 December 2018. The increase in total remuneration is particularly due to the fact that the Board of Management has had an additional member since March 2019, and that a member appointed during the year in 2015 was included for the first time for the entire assessment period when calculating the multi-year remuneration. Moreover, the levels of target achievement for the variable remuneration components were higher than last year. 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)**

Name	Financial year	Basic remuneration	Remuneration in kind/fringe benefits	Annual bonus[1]	Multi-year performance[2, 3]	Other	Total
		€	€	€	€	€	€
Joachim Wenning	**2019**	**2,225,000**	**40,963**	**867,750**	**773,465**		**3,907,178**
	2018	2,225,000	39,201	692,736	646,800		3,603,737
Thomas Blunck	**2019**	**1,075,000**	**33,913**	**419,250**	**793,555**		**2,321,718**
	2018	1,075,000	33,797	367,717	637,000		2,113,514
Nicholas Gartside (since 18 March 2019)[4]	**2019**	**848,909**	**19,478**	**331,075**		**411,188**	**1,610,650**
	2018						
Doris Höpke	**2019**	**1,075,000**	**31,532**	**419,250**	**879,305**		**2,405,087**
	2018	1,075,000	32,273	260,092	493,675		1,861,040
Torsten Jeworrek	**2019**	**1,550,000**	**38,286**	**604,500**	**1,098,580**		**3,291,366**
	2018	1,550,000	37,021	483,570	937,860		3,008,451
Christoph Jurecka	**2019**	**1,300,000**	**30,041**	**507,000**			**1,837,041**
	2018						
Hermann Pohlchristoph	**2019**	**1,075,000**	**48,370**	**419,250**			**1,542,620**
	2018	1,012,500	49,237	319,028			1,380,765
Markus Rieß[5]	**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
	2018	2,462,500	120,626	328,480	471,089		3,382,695
Thereof for Munich Reinsurance Company		637,500	47,250	202,500	165,926		1,053,176
Peter Röder	**2019**	**1,075,000**	**30,446**	**419,250**	**763,420**		**2,288,116**
	2018	1,075,000	31,713	326,820	637,000		2,070,533
Total	2019	12,898,909	392,488	4,153,075	5,975,110	411,188	23,830,770
	2018	10,475,000	343,868	2,778,443	3,823,424		17,420,735

1 At the time of preparation of this report, no Supervisory Board resolution had yet been passed on the amounts to be paid for the 2019 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 2018 annual bonus. The amounts shown for the 2018 annual bonus comprise the respective provision for 2018 and the relevant additional/reduced expenditure for the 2017 annual performance. The actual bonus payments for 2018 can be seen in the remuneration tables "Remuneration paid in accordance with the German Corporate Governance Code" on pages 49 ff.
2 The multi-year performance component paid annually until 2017 is 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 assesses the overall performance of the Board of Management as a whole and the individual Board members, and it also takes into account developments during the appraisal period that are beyond the influence of the Board. Payment is 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.
3 The amounts paid out in 2019 were for multi-year performance 2016–2018, those paid out in 2018 were for 2015–2017.
4 Other: Nicholas Gartside does not receive 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.
5 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%

Name	Set in	for	Annual bonus[1, 3] €	Multi-year bonus[2, 3] €	Total amounts payable €
Joachim Wenning	**2019**	**2020**	**697,500**	**1,627,500**	**2,325,000**
	2018	2019	667,500	1,557,500	2,225,000
Thomas Blunck	**2019**	**2020**	**337,500**	**787,500**	**1,125,000**
	2018	2019	322,500	752,500	1,075,000
Nicholas Gartside (since 18 March 2019)	**2019**	**2020**	**337,500**	**787,500**	**1,125,000**
	2018	2019	254,673	594,236	848,909
Doris Höpke	**2019**	**2020**	**337,500**	**787,500**	**1,125,000**
	2018	2019	322,500	752,500	1,075,000
Torsten Jeworrek	**2019**	**2020**	**487,500**	**1,137,500**	**1,625,000**
	2018	2019	465,000	1,085,000	1,550,000
Christoph Jurecka	**2019**	**2020**	**450,000**	**1,050,000**	**1,500,000**
	2018	2019	390,000	910,000	1,300,000
Hermann Pohlchristoph (until 30 April 2020)	**2019**	**2020**	**107,500**	**250,833**	**358,333**
	2018	2019	322,500	752,500	1,075,000
Markus Rieß[4]	**2019**	**2020**	**150,000**	**350,000**	**500,000**
	2018	2019	127,500	297,500	425,000
Peter Röder	**2019**	**2020**	**337,500**	**787,500**	**1,125,000**
	2018	2019	322,500	752,500	1,075,000
Total	**2019**	**2020**	**3,242,500**	**7,565,833**	**10,808,333**
	2018	2019	3,194,673	7,454,236	10,648,909

1 The remuneration set for the annual bonus for 2019 is payable in 2020, that for 2020 in 2021.
2 The remuneration set for the multi-year bonus for 2019 is payable in 2023, that for 2020 in 2024.
3 Information on the assessment bases and targets for the amounts set for 2019 and 2020 is provided on pages 36 ff.
4 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 €5.7m (4.9m) were incurred in the financial year to finance the pension entitlements for members of the Board of Management active in 2019. Of these, €0.6m was apportionable to defined benefit plans and around €5.1m 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

		Defined benefit plan		
Name	Financial year	Defined benefit[1]	Present value of defined benefit as at 31 December	Provisions for personnel expenses[2]
		€/year	€	€
Joachim Wenning[3, 4]	**2019**	**–**	**18,173**	**1,643**
	2018	–	16,424	1,698
Thomas Blunck[3, 4]	**2019**	**120,000**	**4,424,945**	**211,946**
	2018	120,000	3,693,367	189,535
Nicholas Gartside (since 18 March 2019)[5]	**2019**	**–**	**–**	**–**
	2018	–	–	–
Doris Höpke[3, 4]	**2019**	**–**	**12,532**	**592**
	2018	–	10,625	574
Torsten Jeworrek[3, 6]	**2019**	**171,000**	**7,316,522**	**249,534**
	2018	171,000	6,437,429	225,482
Christoph Jurecka[3, 7]	**2019**	**–**	**–**	**–**
	2018	–	–	–
Hermann Pohlchristoph[3, 7]	**2019**	**–**	**5,394**	**324**
	2018	–	5,761	345
Markus Rieß[3, 8]	**2019**	**–**	**57,772**	**11,842**
Thereof for Munich Reinsurance Company		–	57,772	11,842
	2018	–	37,192	18,271
Thereof for Munich Reinsurance Company		–	37,192	18,271
Peter Röder[3, 6]	**2019**	**90,000**	**3,569,324**	**119,178**
	2018	90,000	3,164,789	107,050
Total	**2019**	**381,000**	**15,404,662**	**595,059**
	2018	381,000	13,365,587	542,955

See table on next page for footnotes.

Pension entitlements

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[3, 4]	**2019**	**25.50**	**239,933**	–[9]	**1,134,750**
	2018	25.50	201,663	–[9]	1,134,750
Thomas Blunck[3, 4]	**2019**	**16.25**	**151,726**	**7,079,079**	**349,375**
	2018	16.25	137,577	5,718,540	349,375
Nicholas Gartside (since 18 March 2019)[5]	**2019**	**–**	**–**	**–**	**–**
	2018	–	–	–	–
Doris Höpke[3, 4]	**2019**	**25.50**	**94,836**	–[9]	**548,250**
	2018	25.50	76,800	–[9]	548,250
Torsten Jeworrek[3, 6]	**2019**	**19.50**	**253,325**	**11,820,896**	**604,500**
	2018	19.50	229,892	9,874,883	604,500
Christoph Jurecka[3, 7]	**2019**	**25.50**	**16,730**	–[9]	**663,000**
	2018	–	–	–	–
Hermann Pohlchristoph[3, 7]	**2019**	**25.50**	**35,165**	–[9]	**548,250**
	2018	25.50	21,356	–[9]	516,375
Markus Rieß[3, 8]	**2019**	**25.14**	**92,977**	**2,272,938[10]**	**779,250**
Thereof for Munich Reinsurance Company		25.50	33,351	–[9]	216,750
	2018	25.19	70,802	1,207,233[10]	781,375
Thereof for Munich Reinsurance Company		25.50	27,380	–[9]	325,125
Peter Röder[3, 6]	**2019**	**20.25**	**176,860**	**7,936,905**	**435,375**
	2018	20.25	160,141	6,739,628	435,375
Total	**2019**		**1,061,552**	**29,109,818**	**5,062,750**
	2018		898,231	23,540,284	4,370,000

1 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.
2 Expenses for defined benefit plan, including provision for continued payment of salary for surviving dependants.
3 Entitled to occupational pension in the event of termination of employment owing to incapacity to work.
4 Entitled to a reduced occupational pension on early retirement in the event of premature or regular termination of employment.
5 Nicholas Gartside does not receive 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.
6 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.
7 Entitled to vested benefits under the Company Pension Act in the event of premature or regular termination of employment.
8 Entitled to vested benefits under the Company Pension Act in the event of premature termination as of 16 September 2020, or regular termination of employment.
9 Defined contribution plan within the meaning of IAS 19: Employee Benefits, so no present value shown.
10 Munich Reinsurance Company: see footnote 9; 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

	Joachim Wenning Chairman of the Board of Management				Thomas Blunck Board member			
€	2019	2019 (min)	2019 (max)	2018	2019	2019 (min)	2019 (max)	2018
Basic remuneration	2,225,000	2,225,000	2,225,000	2,225,000	1,075,000	1,075,000	1,075,000	1,075,000
Remuneration in kind/fringe benefits	40,963	40,963	40,963	39,201	33,913	33,913	33,913	33,797
Total	**2,265,963**	**2,265,963**	**2,265,963**	**2,264,201**	**1,108,913**	**1,108,913**	**1,108,913**	**1,108,797**
One-year variable remuneration								
Annual bonus 2018				667,500				322,500
Annual bonus 2019	667,500	0	1,335,000		322,500	0	645,000	
Multi-year variable remuneration								
Multi-year bonus 2018				1,557,500				752,500
Multi-year bonus 2019	1,557,500	0	3,115,000		752,500	0	1,505,000	
Other								
Total	**4,490,963**	**2,265,963**	**6,715,963**	**4,489,201**	**2,183,913**	**1,108,913**	**3,258,913**	**2,183,797**
Pension expenses	1,136,393	1,136,393	1,136,393	1,136,448	561,321	561,321	561,321	538,910
Total remuneration	**5,627,356**	**3,402,356**	**7,852,356**	**5,625,649**	**2,745,234**	**1,670,234**	**3,820,234**	**2,722,707**

→	Nicholas Gartside Board member (since 18 March 2019)				Doris Höpke Board member			
€	2019	2019 (min)	2019 (max)	2018	2019	2019 (min)	2019 (max)	2018
Basic remuneration	848,909	848,909	848,909	–	1,075,000	1,075,000	1,075,000	1,075,000
Remuneration in kind/fringe benefits	19,478	19,478	19,478	–	31,532	31,532	31,532	32,273
Total	**868,387**	**868,387**	**868,387**	**–**	**1,106,532**	**1,106,532**	**1,106,532**	**1,107,273**
One-year variable remuneration								
Annual bonus 2018				–				322,500
Annual bonus 2019	254,673	0	509,346		322,500	0	645,000	
Multi-year variable remuneration								
Multi-year bonus 2018				–				752,500
Multi-year bonus 2019	594,236	0	1,188,472		752,500	0	1,505,000	
Other[1]	411,188	411,188	411,188					
Total	**2,128,484**	**1,279,575**	**2,977,393**	**–**	**2,181,532**	**1,106,532**	**3,256,532**	**2,182,273**
Pension expenses					548,842	548,842	548,842	548,824
Total remuneration	**2,128,484**	**1,279,575**	**2,977,393**	**–**	**2,730,374**	**1,655,374**	**3,805,374**	**2,731,097**

→	Torsten Jeworrek Board member				Christoph Jurecka Board member			
€	2019	2019 (min)	2019 (max)	2018	2019	2019 (min)	2019 (max)	2018
Basic remuneration	1,550,000	1,550,000	1,550,000	1,550,000	1,300,000	1,300,000	1,300,000	–
Remuneration in kind/fringe benefits	38,286	38,286	38,286	37,021	30,041	30,041	30,041	–
Total	**1,588,286**	**1,588,286**	**1,588,286**	**1,587,021**	**1,330,041**	**1,330,041**	**1,330,041**	**–**
One-year variable remuneration								
Annual bonus 2018				465,000				–
Annual bonus 2019	465,000	0	930,000		390,000	0	780,000	
Multi-year variable remuneration								
Multi-year bonus 2018				1,085,000				–
Multi-year bonus 2019	1,085,000	0	2,170,000		910,000	0	1,820,000	
Other								
Total	**3,138,286**	**1,588,286**	**4,688,286**	**3,137,021**	**2,630,041**	**1,330,041**	**3,930,041**	**–**
Pension expenses	854,034	854,034	854,034	829,982	663,000	663,000	663,000	–
Total remuneration	**3,992,320**	**2,442,320**	**5,542,320**	**3,967,003**	**3,293,041**	**1,993,041**	**4,593,041**	**–**

Continued on next page.

€	Hermann Pohlchristoph Board member 2019	2019 (min)	2019 (max)	2018
Basic remuneration	1,075,000	1,075,000	1,075,000	1,012,500
Remuneration in kind/fringe benefits	48,370	48,370	48,370	49,237
Total	**1,123,370**	**1,123,370**	**1,123,370**	**1,061,737**
One-year variable remuneration				
Annual bonus 2018				303,750
Annual bonus 2019	322,500	0	645,000	
Multi-year variable remuneration				
Multi-year bonus 2018				708,750
Multi-year bonus 2019	752,500	0	1,505,000	
Other				
Total	**2,198,370**	**1,123,370**	**3,273,370**	**2,074,237**
Pension expenses	548,574	548,574	548,574	516,720
Total remuneration	**2,746,944**	**1,671,944**	**3,821,944**	**2,590,957**

					Markus Rieß			
	Total[2]				Board member thereof for Munich Reinsurance Company			
€	2019	2019 (min.)	2019 (max.)	2018	2019	2019 (min.)	2019 (max.)	2018
Basic remuneration	2,675,000	2,675,000	2,675,000	2,462,500	425,000	425,000	425,000	637,500
Remuneration in kind/fringe benefits	119,459	119,459	119,459	120,626	23,888	23,888	23,888	47,250
Total	**2,794,459**	**2,794,459**	**2,794,459**	**2,583,126**	**448,888**	**448,888**	**448,888**	**684,750**
One-year variable remuneration								
Annual bonus 2018				191,250				191,250
Annual bonus 2019	127,500	0	255,000		127,500	0	255,000	0
Multi-year variable remuneration								
Multi-year bonus 2018				446,250				446,250
Multi-year bonus 2019	297,500	0	595,000		297,500	0	595,000	0
Other								
Total	**3,219,459**	**2,794,459**	**3,644,459**	**3,220,626**	**873,888**	**448,888**	**1,298,888**	**1,322,250**
Pension expenses	791,092	791,092	791,092	799,646	228,592	228,592	228,592	343,396
Total remuneration	**4,010,551**	**3,585,551**	**4,435,551**	**4,020,272**	**1,102,480**	**677,480**	**1,527,480**	**1,665,646**

€	Peter Röder Board member 2019	2019 (min)	2019 (max)	2018
Basic remuneration	1,075,000	1,075,000	1,075,000	1,075,000
Remuneration in kind/fringe benefits	30,446	30,446	30,446	31,713
Total	**1,105,446**	**1,105,446**	**1,105,446**	**1,106,713**
One-year variable remuneration				
Annual bonus 2018				322,500
Annual bonus 2019	322,500	0	645,000	
Multi-year variable remuneration				
Multi-year bonus 2018				752,500
Multi-year bonus 2019	752,500	0	1,505,000	
Other				
Total	**2,180,446**	**1,105,446**	**3,255,446**	**2,181,713**
Pension expenses	554,553	554,553	554,553	542,425
Total remuneration	**2,734,999**	**1,659,999**	**3,809,999**	**2,724,138**

1 Nicholas Gartside does not receive 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.
2 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

€	Joachim Wenning Chairman of the Board of Management 2019	2018	Overall performance evalution in %	Thomas Blunck Board member 2019	2018	Overall performance evalution in %
Basic remuneration	2,225,000	2,225,000		1,075,000	1,075,000	
Remuneration in kind/fringe benefits	40,963	39,201		33,913	33,797	
Total	**2,265,963**	**2,264,201**		**1,108,913**	**1,108,797**	
One-year variable remuneration						
Annual bonus 2018[1]		640,800	96		309,600	96
Annual bonus 2019[2]	867,750		130	419,250		130
Multi-year variable remuneration						
Multi-year performance 2016–2018[1, 3]		773,465	77		793,555	79
Multi-year performance 2017–2019[3, 4]	1,712,466		100	965,927		96
Other						
Total	**4,846,179**	**3,678,466**		**2,494,090**	**2,211,952**	
Pension expenses	1,136,393	1,136,448		561,321	538,910	
Total remuneration	**5,982,572**	**4,814,914**		**3,055,411**	**2,750,862**	

→

€	Nicholas Gartside Board member (since 18 March 2019) 2019	2018	Overall performance evalution in %	Doris Höpke Board member 2019	2018	Overall performance evalution in %
Basic remuneration	848,909	–		1,075,000	1,075,000	
Remuneration in kind/fringe benefits	19,478	–		31,532	32,273	
Total	**868,387**	**–**		**1,106,532**	**1,107,273**	
One-year variable remuneration						
Annual bonus 2018[1]		–			309,600	96
Annual bonus 2019[2]	331,075		130	419,250		130
Multi-year variable remuneration						
Multi-year performance 2016–2018[1, 3]		–			879,305	97
Multi-year performance 2017–2019[3, 4]	–			965,927		96
Other[5]	411,188					
Total	**1,610,650**	**–**		**2,491,709**	**2,296,178**	
Pension expenses	–	–		548,842	548,824	
Total remuneration	**1,610,650**	**–**		**3,040,551**	**2,845,002**	

See table on page 51 for footnotes.

→	Torsten Jeworrek			Christoph Jurecka		
	Board member			Board member		
€	2019	2018	Overall performance evalution in %	2019	2018	Overall performance evalution in %
Basic remuneration	1,550,000	1,550,000		1,300,000	–	
Remuneration in kind/fringe benefits	38,286	37,021		30,041	–	
Total	**1,588,286**	**1,587,021**		**1,330,041**	**–**	
One-year variable remuneration						
Annual bonus 2018[1]		446,400	96		–	
Annual bonus 2019[2]	604,500		130	507,000		130
Multi-year variable remuneration						
Multi-year performance 2016–2018[1, 3]		1,098,580	76		–	
Multi-year performance 2017–2019[3, 4]	1,389,993		96	–		
Other						
Total	**3,582,779**	**3,132,001**		**1,837,041**	**–**	
Pension expenses	854,034	829,982		663,000	–	
Total remuneration	**4,436,813**	**3,961,983**		**2,500,041**	**–**	

→	Hermann Pohlchristoph		
	Board member		
€	2019	2018	Overall performance evaluation in %
Basic remuneration	1,075,000	1,012,500	
Remuneration in kind/fringe benefits	48,370	49,237	
Total	**1,123,370**	**1,061,737**	
One-year variable remuneration			
Annual bonus 2018[1]		291,600	96
Annual bonus 2019[2]	419,250		130
Multi-year variable remuneration			
Multi-year performance 2016–2018[1, 3]		–	
Multi-year performance 2017–2019[3, 4]	581,127		96
Other			
Total	**2,123,747**	**1,353,337**	
Pension expenses	548,574	516,720	
Total remuneration	**2,672,321**	**1,870,057**	

See table on page 51 for footnotes.

					Markus Rieß
		Total[6]			Board member thereof for Munich Reinsurance Company
€	2019	2018	2019	2018	Overall performance evaluation in %
Basic remuneration	2,675,000	2,462,500	425,000	637,500	
Remuneration in kind/fringe benefits	119,459	120,626	23,888	47,250	
Total	**2,794,459**	**2,583,126**	**448,888**	**684,750**	
One-year variable remuneration					
Annual bonus 2018[1]		183,600		183,600	96
Annual bonus 2019[2]	165,750		165,750		130
Multi-year variable remuneration					
Multi-year performance 2016–2018[1, 3]		1,666,785		667,013	121
Multi-year performance 2017–2019[3, 4]	1,440,609		610,234		111
Other					
Total	**4,400,818**	**4,433,511**	**1,224,872**	**1,535,363**	
Pension expenses	791,092	799,646	228,592	343,396	
Total remuneration	**5,191,910**	**5,233,157**	**1,453,464**	**1,878,759**	

			Peter Röder
			Board member
€	2019	2018	Overall performance evaluation in %
Basic remuneration	1,075,000	1,075,000	
Remuneration in kind/fringe benefits	30,446	31,713	
Total	**1,105,446**	**1,106,713**	
One-year variable remuneration			
Annual bonus 2018[1]		309,600	96
Annual bonus 2019[2]	419,250		130
Multi-year variable remuneration			
Multi-year performance 2016–2018[1, 3]		763,420	76
Multi-year performance 2017–2019[3, 4]	965,927		96
Other			
Total	**2,490,623**	**2,179,733**	
Pension expenses	554,553	542,425	
Total remuneration	**3,045,176**	**2,722,158**	

1 In the 2018 Annual Report, the amounts to be paid for the 2018 annual performance and multi-year performance 2016–2018 were recognised on the basis of the reserves, as no Supervisory Board resolution had yet been passed on the actual bonus amounts to be paid. The Annual Report for 2019 shows the actual amounts set by the Supervisory Board and to be paid out for 2018.
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 2019 annual bonus, the amount shown is based on estimates and the relevant provisions posted.
3 The multi-year performance component paid annually until 2017 is 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 assesses the overall performance of the Board of Management as a whole and the individual Board members, and it also takes into account developments during the appraisal period that are beyond the influence of the Board. Payment is 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 At the time of preparation of this report, no Supervisory Board resolution had yet been passed on the amounts to be paid for the 2017–2019 multi-year performance, the amount shown is based on estimates and the relevant provisions posted.
5 Nicholas Gartside does not receive 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.
6 Markus Rieß' remuneration also includes compensation components and pension expenses for work at ERGO Group AG.

Total remuneration of the Supervisory Board

Remuneration of the members of the Supervisory Board in 2019

In the year under review, 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 Chairman 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 Committee and the Remuneration Committee each received an additional €30,000. For members of the Supervisory Board who are on both the Personnel Committee and the Remuneration Committee, their membership of the Remuneration Committee is also covered by their fee for the Personnel Committee. The Chairs of these committees receive double the amounts stated for members. No additional remuneration is paid for serving on the Nomination Committee or the Conference Committee.

Members of the Supervisory Board receive a daily attendance fee of €1,000 for Supervisory Board/ Supervisory Board committee meetings – with the exception of the Conference Committee.

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

The current remuneration system for members of the Supervisory Board excludes variable remuneration components and 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
		€	€	€	€	€	€	€	€
Bernd Pischetsrieder[2]	**2019**	**73,333**	**48,334**	**6,000**	**127,667**				
Chairman	2018	180,000	126,000	22,000	328,000				
Nikolaus von Bomhard[3]	**2019**	**165,000**	**108,750**	**9,000**	**282,750**				
Chairman	2018								
Marco Nörenberg[2]	**2019**	**50,000**	**5,000**	**2,000**	**57,000**	**11,507**			**11,507**
Deputy Chairman	2018	135,000	13,500	7,000	155,500	35,000			35,000
Anne Horstmann	**2019**	**137,500**	**29,583**	**8,000**	**175,083**	**43,678**	**12,541**		**56,219**
Deputy Chairman since 30 April 2019	2018	90,000	45,000	15,000	150,000	52,500	7,500		60,000
Ann-Kristin Achleitner	**2019**	**100,000**	**107,500**	**15,000**	**222,500**				
	2018	90,000	72,000	20,000	182,000				
Kurt Wilhelm Bock	**2019**	**100,000**	**11,250**	**6,000**	**117,250**				
	2018	67,500		3,000	70,500				
Clement Booth	**2019**	**100,000**		**6,000**	**106,000**				
	2018	90,000		6,000	96,000				
Ruth Brown[3]	**2019**	**75,000**		**4,000**	**79,000**				
	2018								
Stephan Eberl[3]	**2019**	**75,000**	**33,750**	**5,000**	**113,750**				
	2018								
Frank Fassin	**2019**	**100,000**		**6,000**	**106,000**	**35,000**			**35,000**
	2018	90,000		6,000	96,000	35,000			35,000
Benita Ferrero-Waldner	**2019**	**100,000**		**6,000**	**106,000**				
	2018	90,000		6,000	96,000				
Christian Fuhrmann[2]	**2019**	**33,333**	**18,334**	**4,000**	**55,667**				
	2018	90,000	45,000	15,000	150,000				
Ursula Gather	**2019**	**100,000**		**6,000**	**106,000**				
	2018	90,000		6,000	96,000				

		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
		€	€	€	€	€	€	€	€
Gerd Häusler	**2019**	**100,000**	**15,000**	**6,000**	**121,000**				
	2018	90,000	13,500	7,000	110,500				
Eva-Maria Haiduk[3]	**2019**	**75,000**		**4,000**	**79,000**				
	2018								
Ina Hosenfelder[2]	**2019**	**33,333**		**2,000**	**35,333**	**23,493**			**23,493**
	2018	90,000		4,000	94,000				
Renata Jungo Brüngger	**2019**	**100,000**	**22,500**	**7,000**	**129,500**				
	2018	90,000		6,000	96,000				
Henning Kagermann[2]	**2019**	**33,333**	**51,666**	**6,000**	**90,999**				
	2018	90,000	130,500	21,000	241,500				
Stefan Kaindl[3]	**2019**	**75,000**	**41,250**	**8,000**	**124,250**				
	2018								
Beate Mensch[2]	**2019**	**33,333**		**2,000**	**35,333**				
	2018	90,000		6,000	96,000				
Gabriele Mücke[3]	**2019**	**75,000**		**4,000**	**79,000**				
	2018								
Ulrich Plottke	**2019**	**100,000**	**41,250**	**10,000**	**151,250**	**43,822**	**12,459**		**56,281**
	2018	90,000		6,000	96,000	35,000	17,500		52,500
Manfred Rassy[3]	**2019**	**75,000**		**4,000**	**79,000**				
	2018								
Andrés Ruiz Feger[2]	**2019**	**33,333**	**5,000**	**2,000**	**40,333**				
	2018	90,000	13,500	7,000	110,500				
Gabriele Sinz-Toporzysek	**2019**	**100,000**		**6,000**	**106,000**	**15,000**			**15,000**
	2018	90,000		5,000	95,000	15,000			15,000
Karl-Heinz Streibich[3]	**2019**	**75,000**		**4,000**	**79,000**				
	2018								
Angelika Wirtz[2]	**2019**	**33,333**	**10,000**	**6,000**	**49,333**				
	2018	90,000	27,000	9,000	126,000				
Maximilian Zimmerer	**2019**	**100,000**	**82,500**	**10,000**	**192,500**				
	2018	90,000		6,000	96,000				
Total[4]	**2019**	**2,250,831**	**631,668**	**164,000**	**3,046,499**	**172,500**	**25,000**		**197,500**
	2018	1,912,500	486,000	183,000	2,581,500	172,500	25,000		197,500

1 Plus value-added tax (USt) in each case, in accordance with the relevant Articles of Association.
2 Member of the Supervisory Board until 30 April 2019
3 Member of the Supervisory Board from 30 April 2019
4 The previous year's figures do not include the remuneration of members who left the Supervisory Board in the 2018 financial year.

Macroeconomic and industry environment

Global economic growth in 2019 was considerably weaker than in the previous year. While the economy in the USA slowed, growth was subdued in the eurozone and Japan. China's high growth rate decreased somewhat, and India's rapidly growing economy slowed markedly. Growth rates remained low in Brazil and Russia. Inflation rates in developed economies were lower on average than in the previous year. In the eurozone and Japan, inflation was low.

Capital markets

Both the European Central Bank (ECB) and the US Federal Reserve pivoted their monetary policy during 2019. The ECB cut the interest rate for deposits. In addition, the Bank resumed making monthly net purchases as part of its asset purchase programme. The Fed lowered its policy rate corridor three times in 2019, and ended its balance-sheet reduction programme. Yields on government bonds were impacted by monetary policy easing, weaker economic growth, lower inflation, and political risks – particularly the trade war between the United States and China. Yields on ten-year German government bonds dropped to a new all-time low at one point in the year – and remained in negative territory at the end of 2019. There was an even greater decline in yields on ten-year US government bonds.

Yields on ten-year government bonds

%	31.12.2019	31.12.2018
USA	1.9	2.7
Germany	-0.2	0.2

Monetary policy easing boosted stock markets over the course of 2019. Important stock indices such as the US Dow Jones index and the DJ EURO STOXX 50 closed the year with substantial gains. The trade war between the USA and China led to volatility, with prospects of renewed escalation dragging down share prices and news of an impending trade agreement buoyed the markets.

Equity markets

	31.12.2019	31.12.2018
DJ EURO STOXX 50	3,745	3,001
Dow Jones Index	28,538	23,327

At the end of December, the euro exchange rate was lower than the previous year against the US dollar, the Canadian dollar and the pound sterling. Compared with the previous year, the average value of the euro in 2019 was much lower against the US dollar and the Canadian dollar, and slightly lower against the pound sterling. Because of ongoing uncertainty about Brexit, the pound sterling fluctuated considerably throughout 2019. Further information on exchange rates can be found in the Notes to the consolidated financial statements on page 122.

Insurance industry

According to preliminary estimates, premium income in the German insurance industry increased significantly in 2019. In life insurance, premium growth was above average due to a robust increase in single-premium volume. Premiums in property-casualty business and in private health insurance were in line with the average in recent years.

The global growth rate in property-casualty primary insurance was down somewhat in 2019. China's premium growth slowed significantly compared with the previous year, growth in Italy stagnated and premium income in Brazil declined after adjustment for inflation. By contrast, there was robust growth in the USA, Japan, Australia and Germany, which supported global premium development in property-casualty reinsurance. The renewals for property-casualty reinsurance treaties in January 2019 saw average prices remain largely unchanged, owing to persistently high capacity in the market. The renewals in April and July 2019 saw prices rise in regions affected by natural catastrophes. The price level stabilised and trended slightly upwards in third-party liability markets.

Important tools of corporate management

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 risk model is provided on pages 73 ff.
- 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.

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 life and health reinsurance including the result from business 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 from risk in reinsurance investments 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]

1 Expenses for claims and benefits not taken into account in the calculation of the combined ratio are set out on page 128 in the notes to the consolidated financial statements.

2 The calculation of RoI is explained in the table on the investment result on page 60.

Business performance

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

In the 2018 Group Annual Report, we forecast a consolidated result of around €2.5bn for the year under review; after the first nine months of 2019, we increased our forecast to above €2.5bn. We have exceeded our target by posting a very satisfying consolidated result of €2,707m. Due in particular to a good investment result, the operating result in property-casualty reinsurance rose to €1,562m (1,135m). However, the combined ratio increased to 101.0% (99.4%) of net earned premiums – largely due to the high losses from natural catastrophes in Q4. Life and health reinsurance contributed €706m (729m) to the consolidated result. The technical result – including the result from business not recognised in the technical result owing to non-significant risk transfer – amounted to €456m (584m), which was slightly below our target of €500m. This is primarily attributable to claims burdens from Australian disability business. The ERGO field of business generated a result of €440m (412m), which surpassed the result of around €400m originally forecast. Compared with the previous year, the good result for the year is due not only to significantly improved operational performance in the ERGO Property-casualty Germany segment but also to very good operational development in the ERGO International segment. Burdens from the international portfolio optimisation were thus more than offset.

Business performance of the Group and overview of investment performance

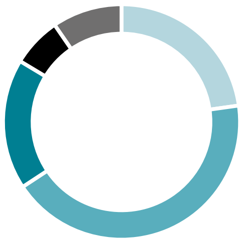
Key figures

		2019	Prev. year	Change
				%
Gross premiums written	€bn	51.5	49.1	4.9
Combined ratio				
Reinsurance property-casualty	%	101.0	99.4	
ERGO Property-casualty Germany	%	92.3	96.0	
ERGO International	%	94.3	94.6	
Technical result	€m	2,074	2,698.5	–23.1
Investment result	€m	7,737	6,526.1	18.6
Result from insurance-related investments	€m	1,176	–684.6	–
Operating result	€m	4,004	3,725.0	7.5
Currency result	€m	73	–39.2	–
Taxes on income	€m	–483	–575.6	16.1
Economic earnings	€bn	7.4	1.9	391.7
Return on equity (RoE)[1]	%	9.2	8.4	
Consolidated result	€m	2,707	2,275.3	19.0
Investments	€bn	228.8	216.9	5.5
Insurance-related investments	€bn	9.2	8.4	8.8
Net technical provisions	€bn	217.9	208.3	4.6
Equity	€bn	30.6	26.5	15.4

1 The RoE is calculated on the basis of the consolidated result, including the result attributable to non-controlling interests. We use the figures as at 31 December 2018 (€26.5bn), 31 March 2019 (€29.0bn), 30 June 2019 (€29.5bn), 30 September 2019 (€31.6bn) and 31 December 2019 (€30.6bn) to calculate the average equity for the reporting year.

Munich Re's gross premiums written, at €51,457m, were significantly higher than last year (€49,064m). This is mainly due to new reinsurance contracts and currency translation effects.

Group premium income



Life and health reinsurance	23	(22)%
Property-casualty reinsurance	43	(42)%
ERGO Life and Health Germany	18	(19)%
ERGO Property-casualty Germany	7	(7)%
ERGO International	10	(10)%

The return on overall equity (RoE) was 9.2% (8.4%).

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. Operational value creation was positive in all fields of business, although major-loss expenditure in property-casualty reinsurance was randomly higher than anticipated. Likewise, the overall positive market variances contributed significantly to the high economic earnings of the financial year: the increase in share prices, the reduction in risk spreads on fixed-interest securities, the appreciation of important foreign currencies against the euro and the positive performance of investments in real estate and infrastructure more than offset adverse effects from the decline in risk-free interest rates.

The investment result (excluding insurance-related investments) improved to €7,737m (6,526m). This was particularly due to higher gains on the disposal of fixed-interest securities, and lower write-downs of shares. The lower net balance of derivatives affected the result.

The currency result was €73m (–39m); this was positively affected mainly by the performance of the US dollar. Our effective tax rate was 15.1% (20.2%), having fallen due to a number of one-off effects and being below our expected rate.

Information on events after the balance sheet date can be found in the notes to the consolidated financial statements on pages 175 f.

Investment mix

	Carrying amounts		Unrealised gains/losses[1]		Fair values	
€m	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year
Land and buildings, including buildings on third-party land	5,989	5,851	5,600	4,769	11,589	10,620
Investments in affiliated companies, associates and joint ventures	2,847	2,509	968	983	3,646	3,312
Loans	52,507	54,845	12,147	9,453	64,654	64,298
Other securities available for sale	151,558	139,272	14,370	6,771	151,558	139,272
Thereof: Fixed-interest	132,120	124,095	10,738	4,953	132,120	124,095
Thereof: Non-fixed-interest	19,438	15,177	3,632	1,817	19,438	15,177
Other securities at fair value through profit or loss	2,781	2,616	0	0	2,781	2,616
Thereof: Derivatives	2,099	2,078	0	0	2,099	2,078
Deposits retained on assumed reinsurance	7,938	7,241	0	0	7,938	7,241
Other investments	5,144	4,518	0	0	5,144	4,518
Total	**228,764**	**216,852**	**33,085**	**21,975**	**247,310**	**231,876**

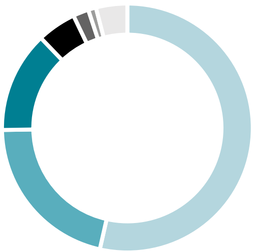
1 Including on- and off-balance-sheet unrealised gains and losses.

The fair value of our investment portfolio increased mainly as a result of falling interest rates, exchange rate developments and rising stock market prices. The portfolio continued 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. The valuation reserves on equities and property increased primarily due to an overall positive market development.

Fixed-interest portfolio by economic category[1]

Total: €208bn (198bn)



Government bonds[2]	53	(53)%
Thereof: Inflation-linked bonds	8	(7)%
Covered bonds	21	(23)%
Corporate bonds	13	(12)%
Cash/Other	5	(5)%
Structured products (credit structures)	2	(2)%
Bank bonds	1	(2)%
Policy and mortgage loans	4	(4)%

1 Presentation essentially shows fixed-interest securities and loans, including deposits and cash at banks, at fair value. The approximation is not fully comparable with IFRS figures.
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 constituted 12.8% (13.4%) and 8.8% (8.3%) of the total portfolio of interest-bearing securities. Italian and Spanish government bonds each accounted for around 0.8% (1.1%) and 2.3% (2.0%) of the portfolio of interest-bearing securities. Our new investments in the reporting year were mostly in US and Israeli government bonds. We reduced our bond holdings mainly from issuers in Germany, France and Italy in the reporting year. The purchase of government bonds from emerging markets is part of our balanced investment strategy. They constituted 9.9% of our government bond portfolio.

Our investment in covered bonds remains focussed on German securities, at around 35%. We also held bonds from France (19%) and the United Kingdom (10%) in our portfolio.

The regional weighting of corporate bonds in our portfolio was 36% for the USA and 38% for the eurozone.

Our portfolio of government bonds, covered bonds and corporate bonds had a good rating structure: as at 31 December 2019, some 83% of the securities were rated AAA to A.

Our investment in bank bonds is limited, and was further reduced in the course of the year. The share in our overall portfolio of interest-bearing securities was 1% at the reporting date. Financial instruments from states in southern Europe made up 3% of this portfolio. Most of our bank bonds were senior bonds (82%), i.e. bonds that are not subordinated or subject to loss participation. Subordinated bonds and loss-bearing bonds made up 18% of our bank bond holdings.

The portfolio of structured credit products at fair value increased slightly as a result of acquisitions, and 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 60% of our structured credit products have a rating of AAA.

Our equity portfolio increased as a result of acquisitions and the overall positive 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 7.1% (6.2%) at the end of the year. The equity-backing ratio including derivatives was 6.4% (5.2%). 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 €8.6bn (€7.6bn). Real and financial assets such as shares, property, 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.

Investment result[1]

	2019	RoI[2]	Prev. year	RoI[2]
	€m	%	€m	%
Regular income	6,751	2.8	6,586	2.8
Write-ups/write-downs of non-derivative investments	-309	-0.1	-1,054	-0.5
Gains/losses on the disposal of non-derivative investments	2,779	1.1	1,582	0.7
Net balance of derivatives	-717	-0.3	103	0.0
Other income/expenses	-767	-0.3	-691	-0.3
Total	**7,737**	**3.2**	**6,526**	**2.8**

1 Details of the result by type of investment are shown in the notes to the consolidated financial statements on page 163.
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 2019 (3.2%) was calculated as the mean value of the investment portfolios (carrying amounts) as at 31 December 2018 (€216,852m), 31 March 2019 (€223,927m), 30 June 2019 (€226,619m), 30 September 2019 (€232,933m) and 31 December 2019 (€228,764m), and the off-balance-sheet unrealised gains and losses (excluding owner-occupied property and insurance-related loans) as at 31 December 2018 (€15,024m), 31 March 2019 (€16,556m), 30 June 2019 (€18,506m), 30 September 2019 (€20,588m) and 31 December 2019 (€18,546m).

Regular income increased slightly on the previous year, primarily due to higher amounts from dividends and private equity investments. The average reinvestment yield[1] in the financial year was 2.1% (2.2%). 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 lower net write-downs of non-derivative investments, given that in the previous year, our equity portfolio, in particular, had been impacted by heavy price falls on the stock markets. In the financial year under review we also profited from write-ups of our forestry and gold investments.

Net gains on disposal were higher than in the previous year, and chiefly related to our portfolio of fixed-interest securities, as well as – particularly in Q4 – gains from the disposal of equities.

We posted a net loss from write-ups and write-downs of derivatives and from the disposal of derivatives, primarily due to market-related losses on equity derivatives.

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 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	2019	Prev. Year
Regular income	748	614
Write-downs	-311	-964
Realised gains/losses	1,037	739
Result from equities	**1,475**	**389**
Change in on-balance-sheet unrealised gains and losses in equity (gross)	1,814	-1,444
Result from equity derivatives	-927	341
Total	**2,362**	**-714**

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 2018 (€15,177m), 31 March 2019 (€17,674m), 30 June 2019 (€18,539m), 30 September 2019 (€19,733m) and 31 December 2019 (€19,438m).

The return on equities benefited from the overall positive market development in the financial year. The return on our equity portfolio including equity derivatives increased to 13.0% (–4.2%).

Reinsurance – Life and health

Key figures

		2019	Prev. year	Change
				%
Gross premiums written	€m	11,716	10,849	8.0
Share of gross premiums written in reinsurance	%	34.7	34.7	
Technical result incl. result from reinsurance treaties with non-significant risk transfer	€m	456	584	–22.0
Investment result	€m	1,080	988	9.3
Operating result	€m	849	930	–8.7
Consolidated result	€m	706	729	–3.2

Premium

We write the majority of our business in non-euro currencies. Exchange-rate fluctuations therefore have a significant impact on premium development. The exchange-rate effects were positive in 2019. If exchange rates had remained unchanged, our premium income would have risen by 5.1%. The increase was mainly due to business expansion in Asia and in life reinsurance in North America. Premium income decreased slightly following our discontinuation of health reinsurance in the USA.

Result

At €329m, the technical result was below the very good previous-year figure (€503m), and thus also below our expectations for this year.

This is primarily attributable to claims burdens from Australian disability business, which were only partially offset by good results in the USA and Europe.

We saw increased claims expenditure in Australian disability business, particularly in the first half of the year – despite continued remediation measures. We performed a detailed analysis of the business, and in Q4 adjusted our provisions to claims experience. This resulted in a negative impact of around €200m. In the course of the year, we also had to increase our provisions for outstanding claims due to lower interest-rate levels.

The restructuring of investments in Canada resulted, as expected, in a negative impact on the technical result. However, this was more than offset by positive effects on the investment result.

There also were a number of positive effects:

With the exception of Australia, Munich Re's annual review of its reserves had a favourable impact on the result. This includes in particular reserve releases in health reinsurance.

The result was also buoyed by favourable claims experience overall (with the exception of Australia), in particular with business in the USA and Europe. The restructuring of several traditional treaties in Canada also contributed favourably to the result.

The result also benefited from the development of new business.

The result from the part of the business that is not posted in the technical result as a consequence of non-significant risk transfer continued to develop in a very satisfying manner. At €127m, this result was significantly higher than in the previous year (€81m), and above our expectations owing to business growth, particularly in the USA and Asia. This compensated, at least in part, for the technical result falling short of our expectations.

The investment result was up €92m on the previous year; this increase was primarily due to an improved net balance of write-ups and write-downs. The previous year, by contrast, had been impacted by price falls in the capital markets.

Our individual core markets

Based on premium volume, around 40% of our global reinsurance business is written in North America, with the USA (around 25%) ranking before Canada (around 15%). An additional 25% of our premium stems from Europe, with approximately 15% 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 account for slightly more than 5% of premium. 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 slightly to €2.9bn (2.8bn). We therefore continue to be one of the most important reinsurers in this market, which is the largest worldwide. The technical result exceeded our expectations again, mainly thanks to favourable claims experience overall, and positive reserving effects from health reinsurance business in the process of being run off. We continue to be very satisfied with the development of our new business, both in terms of volume and profitability.

After the decrease in premium income in Canada in the previous year, we once again recorded an increase to €1.7bn (1.5bn), thereby retaining our leading market position in traditional business. The technical result was in line with expectations and thus again accounts for a disproportionately large contribution to the overall result. Although the technical result was adversely affected by a planned restructuring of investments, this was counterbalanced by positive effects from the restructuring of several large reinsurance treaties.

At €2.8bn, premium income in Europe was roughly at the same level as in the previous year (€2.7bn), with €1.8bn (1.7bn) deriving from the United Kingdom and Ireland, and a further €597m (676m) from Germany. Claims experience was favourable overall, which resulted in a very satisfying technical result.

In Asia/MENA, our premium income climbed to €3.0bn (2.6bn). New business continued to develop very well. Thanks to our broad diversification, we are in a position to benefit from the growth potential in the region. The technical result was good, and in line with expectations.

Premium generated by our business activities in Australia and New Zealand remained largely constant at €808m (827m). Our main focus here remains the rehabilitation of our existing portfolio. Claims expenditure was higher than anticipated, especially in the first half of the year. As a consequence, we conducted a comprehensive review of our reserves, which resulted in a negative impact on the result of around €200m in Q4. In the course of the year, we also had to increase our provisions for outstanding claims due to lower interest-rate levels. On balance, we posted a negative technical result.

Reinsurance – Property-casualty

Key figures

		2019	Prev. year	Change
				%
Gross premiums written	€m	22,091	20,437	8.1
Share of gross premiums written in reinsurance	%	65.3	65.3	
Loss ratio	%	66.6	65.2	
Thereof: Major losses	Percentage points	15.2	11.6	
Expense ratio	%	34.4	34.2	
Combined ratio	%	101.0	99.4	
Technical result	€m	1,000	1,250	–19.9
Investment result	€m	2,152	1,555	38.4
Operating result	€m	1,764	1,534	15.0
Consolidated result	€m	1,562	1,135	37.6

Premium

Premium income in property-casualty reinsurance increased by 8.1% compared with the previous year. Changes in exchange rates had a positive impact on premium development. Approximately 11% of the portfolio is written in euros and 89% in non-euro currencies, of which 55 percentage points is in US dollars and 12 percentage points in pounds sterling. If exchange rates had remained the same, premium volume would have risen by 5.0% year on year.

The substantial increase in premium volume was due to an expansion of business across almost all lines and regions. Key drivers included the development of existing and new business with targeted clients in North America, and selective growth in India and China. Fire, liability, marine, credit and bond, and aviation and space business were the main sources of growth.

Reinsurance treaty renewals in 2019 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 2019 renewals. In the renewals for 2019, prices rose by approximately 0.3%. Overall, we are adhering to our profit-oriented underwriting policy.

Result

The consolidated result and the operating result in property-casualty reinsurance improved compared with the previous year. Expenditure for major losses was up, and the technical result decreased 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 €1,154m for the full year, which is equivalent to around 5.6 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 €3,124m (2,152m) in 2019, after retrocession and before tax. This amount includes run-off profits and losses for major claims from previous years, and is equivalent to 15.2% of net earned premium. It is much higher than in the previous year, and above our major-loss expectation of 12% of net earned premium.

Aggregate losses from natural catastrophes totalled €2,053m (1,256m) for the full year. This figure is equivalent to 10.0% (6.7%) of net earned premium. The biggest loss events of the year were Typhoons Hagibis and Faxai in Japan, for which we expect total expenditure of around €1,300m, and Hurricane Dorian, with expected losses in the region of €360m. There were also a number of thunderstorms in the USA.

At €1,071m, man-made major losses were up on the previous year (€896m), which is equivalent to 5.2% (4.8%) of net earned premiums. The number of losses above the major-loss threshold was randomly higher than in previous years. The largest individual losses were recorded in aviation/space and fire.

The combined ratio deteriorated significantly to 101.0% (99.4%) due to higher major-loss expenditure in 2019. Paid claims and the change in claims provisions totalled €13,705m (12,132m), along with net operating expenses of €7,066m (6,372m), compared with net earned premiums of €20,566m (18,618m).

The investment result increased by €597m on the previous year, largely owing to lower write-downs of shares triggered by rising equity markets in the financial year 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 (including Canada). 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%).

In the US market, we continued to grow our existing reinsurance business with selected clients and, in addition, wrote profitable new business in the past financial year. As a result, Munich Reinsurance America Inc. posted an increase in premium volume to €4,449m (4,348m).

Reinsurance prices saw an improvement as a result of the loss events in the previous year. Natural hazard events in 2019 were in line with expectations – despite the hurricanes, as well as local hail events and tornados.

Premium income at Hartford Steam Boiler Group (HSB Group) amounted to €1,072m (950m). This increase is mainly attributable to growth generated not only by new products, but also with our core business. American Modern also posted a rise in premium income to €1,168m (1,032m) owing to higher prices and new business. The result situation of both companies was gratifying.

In Canada, we are represented in the area of non-life business by the Munich Reinsurance Company of Canada and Temple Insurance Company. Premium volume increased to €392m (313m) owing to the acquisition of the business of ERGO D.A.S.

European business is dominated by property business and UK motor business. In the United Kingdom, premium volume remained stable at €3,517m (3,588m). In Continental Europe, premium volume was up despite the difficult market environment. The increase was driven by the targeted development of business with selected clients and markets, e.g. France, and additional profitable new business.

At our Swiss subsidiary, New Reinsurance Company Ltd. (New Re), business volume in the area of property-casualty decreased to €542m (608m) owing to rigorous portfolio management.

In Germany, we succeeded in keeping premium income virtually stable at €608m (612m) – despite the still-challenging market environment.

The decline in premium to €954m (1,210m) in Australia and New Zealand was attributable to a one-off effect owing to renewal dates being brought forward. The losses from the bushfires in Australia were taken into account.

Premium income in Japan was up on the previous year and totalled €425m (336m).

In China, the drop in premium volume to €682m (822m) was mainly due to a one-year agreement concluded in 2018 not being renewed in 2019.

We are further expanding our business in India, where we generated an increase in premium income to €367m (206m). Thanks to our local branch, we are well positioned to continue to participate in the expected future growth potential here.

In the Caribbean, Central and South America, we still provide high capacity for the coverage of natural hazards, in particular windstorm and earthquake. Major losses from natural catastrophes in recent years (hurricanes, floods, earthquakes and wildfires) were responsible for increased demand in this field. As a result, we were not only able to defend our strong market position, but actually also raised our premium volume significantly to €1,232m (1,052m). The associated price increases once again resulted in improved margins.

In agricultural reinsurance, we grew our premium volume to €495m (440m), mainly thanks to expanded business with a major client. Claims experience was higher than expected owing to extreme weather and crop conditions in the USA and China, leading to a deterioration in the combined ratio compared with the previous year.

Total premium volume in marine business increased by around 16% to €1,022m (884m), supported by a positive market environment. As in the previous year, the result was once again pleasing.

At €787m, credit and bond reinsurance saw a slight increase in premium volume compared with the previous year (€657m). The increase was attributable mostly to profitable new business in specialty and niche segments, with traditional credit business managing to remain stable.

Thanks to a positive market environment, premium income in direct industrial business, which we operate in our Corporate Insurance Partner unit, rose to €722m (554m). The result saw an improvement compared with the previous year. In mid-2019, the Corporate Insurance Partner unit and facultative business were pooled in the new Facultative & Corporate unit.

Premium in aviation and space business saw a significant increase to €595m (504m) owing to rising prices in the wake of numerous major losses. In aviation reinsurance, we saw the biggest loss events since 2001, which had a considerable impact on our result in this class of business.

The Capital Partners unit offers our clients a broad spectrum of structured, individual reinsurance and capital market solutions. We also use this unit's services for our own purposes in order to buy retrocession cover on the basis of our defined risk strategy. In the year under review, we structured client transactions worth US$ 470m. In addition, Capital Partners placed a sidecar transaction amounting to US$ 700m in the capital markets for its own purposes.

ERGO Life and Health Germany

Key figures

		2019	Prev. year	Change
				%
Total premium income[1]	€m	10,232	9,974	2.6
Gross premiums written	€m	9,238	9,345	-1.1
Share of gross premiums written by ERGO	%	52.3	52.6	
Technical result	€m	271	552	-51.0
Investment result	€m	3,916	3,502	11.8
Operating result	€m	681	790	-13.8
Consolidated result	€m	187	264	-29.1

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.

In the ERGO Life and Health Germany segment, German direct business was renamed Digital Ventures in 2019. Furthermore, ERGO Direkt Lebensversicherung AG from the Digital Ventures division was merged with ERGO Vorsorge Lebensversicherung AG in the Life Germany division with retroactive effect from 1 January 2019.

Premium

Approximately 60% of the segment's gross premiums written derives from the Health Germany operations, around 32% from Life Germany and approximately 8% from Digital Ventures.

Gross premiums written in the segment decreased slightly in the financial year 2019. The decline was attributable to the planned reduction of the portfolio in the Life Germany operations, adjusted for the effects of the merger. The Health Germany and Digital Ventures operations increased their gross premiums written. In Health Germany, premium growth was mainly driven by supplementary insurance and travel insurance. Premium growth in Digital Ventures – adjusted for the effects of the merger – chiefly derived from supplementary dental insurance. The segment's total premium income was up on the previous year.

Result

The technical result in the ERGO Life and Health Germany segment declined, in particular because the previous year had benefited from a one-off effect in Life Germany, and because of higher claims expenditure in Health Germany. Owing chiefly to higher gains from the disposal of equities and interest-bearing investments, as well as lower write-downs, the investment result was up on the previous year.

The decline in the consolidated result was attributable to the lower technical result.

Development of premium income and results by division

For the ERGO Life and Health Germany segment, information about the German life, health and Digital Ventures operations is provided below.

Life Germany

Key figures

	2019	Prev. year	Change
	€m	€m	%
Total premium income[1]	3,907	3,433	13.8
Gross premiums written	2,913	2,831	2.9
Technical result	-21	136	–
Operating result	271	407	-33.4

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.

The increase in gross premiums written was the result of the merger mentioned above. Without this effect, the figure would have been down on the previous year. The decrease 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 up on the previous year's level. The increase was a result of the merger totalling €388m and a one-time accounting effect from a rate change in the amount of €319m. Both effects had a significant impact on new business as well: we saw growth in both regular-premium and single-premium new business. The increase was significant also in terms of annual premium equivalent (APE, see also the following table), which is the performance measure customary among investors.

New business Life Germany

	2019	Prev. year	Change
	€m	€m	%
Regular premiums	198	184	7.6
Single premiums	797	405	97.0
Total	**995**	**589**	**69.1**
Annual premium equivalent[1]	278	224	23.7

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

The technical result declined, largely because the 2018 figure had benefited from a one-off effect. The investment result in the past financial year was €2,368m (2,172m); the increase was attributable to higher regular income thanks to the merger, higher gains on disposals, and lower write-downs of equities, among other factors. To finance the additional interest reserve (ZZR – to be built up only in single-entity financial statements under German GAAP), we realised more valuation reserves compared with 2018. The operating result decreased overall.

Health Germany

Key figures

	2019	Prev. year	Change
	€m	€m	%
Gross premiums written	5,560	5,448	2.1
Technical result	224	326	–31.3
Operating result	369	324	13.7

Compared with the previous year, premium income grew by 2.0% in supplementary health insurance and by 0.4% in comprehensive health insurance. Growth in supplementary insurance benefited from the performance of business not similar to life insurance, which increased by 10.4%. The slight increase in comprehensive cover was mainly due to a premium adjustment in private long-term care insurance. Travel insurance, which was up 13.2% to €655m (579m), contributed to premium growth in Health Germany.

The lower technical result was mainly attributable to higher claims expenditure. The investment result rose, particularly due to higher gains on disposals and lower write-downs of equities, to €1,539m (1,236m). Overall, the operating result was up on the previous year.

Digital Ventures

Key figures

	2019	Prev. year	Change
	€m	€m	%
Gross premiums written	765	1,066	–28.2
Technical result	67	90	–25.3
Operating result	41	59	–30.0

Gross premiums written were down owing to the merger of ERGO Direkt Lebensversicherung AG (formerly part of Digital Ventures) with ERGO Vorsorge Lebensversicherung AG (Life Germany). Without this effect, gross premiums written would have been up on the previous year, chiefly thanks to growth of 6.9% in health insurance from our supplementary dental insurance plans. Gross premiums written in property-casualty business were also up, by 12.6%. Our digital insurer nexible was the main driver of this development.

At 93.4%, the 2019 combined ratio for property-casualty business was up 8.5 percentage points on the previous year (84.9%), in particular on account of higher claims expenditure.

The technical result and the investment result decreased by 25.3% and 89.9% respectively, mainly due to the merger. Altogether, the operating result decreased year on year.

ERGO Property-casualty Germany

Key figures

		2019	Prev. year	Change
				%
Gross premiums written	€m	3,500	3,377	3.6
Share of gross premiums written by ERGO	%	19.8	19.0	
Loss ratio	%	60.3	62.5	
Expense ratio	%	32.0	33.4	
Combined ratio	%	92.3	96.0	
Technical result	€m	303	166	83.2
Investment result	€m	157	133	18.4
Operating result	€m	408	228	78.9
Consolidated result	€m	148	45	230.5

Premium

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

Gross premiums written developed favourably year on year, mainly on account of growth in fire and property insurance and third-party liability insurance of 7.9% each. Other classes of business – above all marine and engineering – also saw an increase of 6.2% in gross premiums written compared with the previous year, as did motor insurance, at 2.2%. By contrast, gross premiums written were down 2.2% in personal accident insurance and 0.4% in legal protection insurance.

Result

The technical result was up on the previous year. Overall, this was due to lower expenditure for major natural catastrophe losses, despite storms Eberhard and Jörn in the first half-year of 2019, and good claims experience in core business. Operating expenses also decreased.

At 3.7 percentage points below the previous year's figure, the combined ratio for 2019 was very good, reaching its lowest level since 2011. Both the loss ratio and expense ratio improved year on year. Paid claims and the change in claims provisions totalled €2,025m (2,033m), along with net operating expenses of €1,077m (1,087m), compared with net earned premiums of €3,362m (3,252m).

The investment result was up on 2018, largely thanks to higher gains from the disposal of equities and interest-bearing investments.

The increase in the consolidated result was chiefly attributable to the higher technical result.

ERGO International

Key figures

		2019	Prev. year	Change
				%
Total premium income[1]	€m	5,148	5,337	–3.5
Gross premiums written	€m	4,912	5,057	–2.9
Share of gross premiums written by ERGO	%	27.8	28.4	
Loss ratio	%	63.7	62.2	
Expense ratio	%	30.6	32.5	
Combined ratio	%	94.3	94.6	
Technical result	€m	171	228	–24.8
Investment result	€m	430	348	23.6
Operating result	€m	302	242	24.7
Consolidated result	€m	105	103	1.8

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 57%, health for about 29% and life insurance for approximately 14%. Our biggest markets are Poland, accounting for approximately 31% of the premium volume, Belgium (approx. 18%) and Spain (approx. 17%).

Gross premiums written decreased overall, mainly owing to the sale of companies outside Germany as part of portfolio optimisation. Adjusted for the sales and for currency effects, gross premiums written in the ERGO International segment would have increased by 0.5% year on year. The segment's total premium income was down on the previous year.

In international property-casualty business, gross premiums written were down 1.7% to €2,791m (2,840m). This decline was mainly attributable to the sale of companies outside Germany in the 2018 and 2019 financial years. Premium growth was strongest in Poland, at 4.0%, and in the Netherlands, at 14.8%.

Gross premiums written developed favourably in international health business, climbing by 3.7% to €1,424m (1,374m) between January and December.

At €698m (843m), gross premiums written in international life insurance business were down by 17.2% on the previous year. This was due not just to portfolio optimisation, but also to lower premium income in Belgium, where we already stopped taking on new business in 2017. Total premium income fell by 16.9% to €934m (1,123m).

New business Life International

	2019	Prev. year	Change
	€m	€m	%
Regular premiums	82	61	34.0
Single premiums	364	265	37.2
Total	**446**	**326**	**36.6**
Annual premium equivalent[1]	118	88	35.0

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

Result

The technical result decreased compared with the previous year. Lower results in life insurance – especially in Belgium, due to higher impairment losses on deferred acquisition costs owing to the low-interest environment – could not be offset by the positive performance of health and property-casualty business.

In international property-casualty business, the combined ratio further improved year on year. Improvement was especially pronounced in Greece, at 16.5 percentage points, mostly because of lower expenses compared with the previous year, which had been impacted by a one-off effect. In international health insurance, the combined ratio was slightly higher (0.2 percentage points) than the previous year's. Paid claims and the change in claims provisions totalled €2,107m (2,047m), along with net operating expenses of €1,012m (1,068m), compared with net earned premiums of €3,309m (3,292m).

The investment result was up on the previous year, chiefly owing to gains on the disposal of interest-bearing investments and shareholdings.

Overall, the consolidated result remained at the previous year's good level.

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 (78% of the balance sheet total). Equity (11% of the balance sheet total) and bonds classified as strategic debt (1% of the balance sheet total) are the most important sources of funds.

Development of Group equity

	31.12.2019	Prev. year	Change
	€m	€m	%
Issued capital and capital reserve	7,421	7,418	0.0
Retained earnings	12,804	13,201	–3.0
Other reserves	7,510	3,440	118.3
Consolidated result attributable to equity holders of Munich Reinsurance Company	2,724	2,310	18.0
Non-controlling interests	117	131	–11.0
Total	**30,576**	**26,500**	**15.4**

The higher Group equity is mainly attributable to the good consolidated result and the increase in valuation reserves on fixed-interest securities and shares. The dividend payout and share buy-backs had an adverse impact.

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

		31.12.2019	Prev. year	Change
		€m	€m	%
Strategic debt[1]		4,172	4,015	3.9
Group equity		30,576	26,500	15.4
Total		**34,748**	**30,515**	**13.9**
Debt leverage	%	12.0	13.2	

1 The main components of our strategic debt are subordinated liabilities, and bonds and notes issued (see pages 150 and 159 of the Notes to the consolidated financial statements).

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. Munich Re's subordinated liabilities amount to €3,839m. Of this sum, €3,681m were recognised as at the reporting date as eligible own funds pursuant to Solvency II. As a consequence, strategic debt is reduced to €491m and the debt leverage amounts to only 1.4%.

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, this involved investments with a volume of €9.8bn (9.2bn). In addition, there were contingent liabilities. Information on these can be found on page 173 in the Notes to the consolidated financial statements.

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 on page 81 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 2019, Munich Reinsurance Company's claims equalisation provision totalled €9.3bn. Additional information can be found under Munich Reinsurance Company (information reported on the basis of German accountancy rules) on pages 93 f.

Between 2006 and 2019, we returned a total of €28.9bn to our shareholders. In March 2019, the Board of Management launched another share buy-back programme. We intend to repurchase shares again, up to a maximum purchase price of €1bn by the Annual General Meeting on 29 April 2020. During the reporting year, we had bought back shares with a total volume of €963m.

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 2019, Munich Reinsurance Company's share capital of €587,725,396.48 was divided into 144,317,861 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. If shareholders are entered under their own name for shares which belong to a third party and exceed at this time the upper limit of 2% of the share capital as stated in the Articles of Association, pursuant to Article 3(5) of the Articles of Association the shares entered shall not carry any voting rights.

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 2019.

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 25 April 2018 authorised the Company, pursuant to Section 71(1) no. 8 of the Stock Corporation Act, to buy back shares until 24 April 2023 up to a total amount of 10% of the share capital. 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. By resolution of 19 March 2019, the Board of Management decided to utilise this authorisation to acquire own shares. Around 2.9 million shares had been acquired by 31 December 2019 at a purchase price of approximately €660m.

- The Annual General Meeting of 23 April 2015 authorised the Board of Management to issue, with the consent of the Supervisory Board, in one or more issues up to 22 April 2020, convertible bonds, bonds with warrants, profit participation rights, profit participation certificates or combinations of such instruments (hereinafter collectively referred to as "bonds") for a maximum nominal amount of €3bn with or without a limited term to maturity. 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. The holders of such bonds may be granted conversion rights, warrants or conversion obligations in respect of shares issued by the Company up to a maximum amount of €117m of the share capital, in accordance with the respective bond or warrant conditions. As a precautionary measure, capital of €117m was conditionally authorised under Article 4(3) of the Articles of Association (Contingent Capital 2015).

- 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 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.

- Under Article 4(2) 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 22 April 2020 by an amount of up to €10m by issuing new shares against cash contribution (Authorised Capital 2015). The subscription right of shareholders is excluded insofar as this is necessary to allow the new shares to be issued to employees of Munich Reinsurance Company and its affiliated companies.

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

	2019	Prev. Year	Change
	€m	€m	%
Cash flows from operating activities	9,493	2,998	216.6
Cash flows from investing activities	–6,919	–95	<–1,000,0
Cash flows from financing activities	–2,496	–1,338	–86.5
Cash flows for the financial year	**78**	**1,565**	**–95.0**

In the consolidated cash flow statement, the consolidated profit of €2,707m is used as the starting point for determining the cash inflows from operating activities. The consolidated result is also adjusted by €11,816m 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 totalling €6,564m and the loss of control of consolidated subsidiaries amounting to €59m.

The cash outflows for financing activities stem mainly from the dividend payment in 2019 and the share buy-back programme.

Overall in the year under review, cash – which comprises cash with banks, cheques and cash in hand – rose by €78m (including currency effects) to €5,006m. There were items pledged as security and other restrictions on title amounting to €11m (12m).

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 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. It is approved by the Board of Management, and discussed with the Audit Committee of the 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. Our process for early identification of risks also encompasses emerging risks, which we define as potential trends or sudden events that are characterised by a high degree of uncertainty in terms of occurrence probability, expected loss amount, and 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, external auditors and the Federal Financial Supervisory Authority (BaFin).

Significant risks

Our general definition of risk is possible future developments or events that could result in a negative deviation from the Group's prognoses or 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 take account of the one-year time horizon and 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 2019.

Solvency capital requirements (SCR)

	Reinsurance		ERGO		Diversification	
	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year
	€m	€m	€m	€m	€m	€m
Property-casualty	8,774	7,557	434	425	–375	–347
Life and health	5,525	4,527	1,215	1,116	–380	–356
Market	6,257	5,513	5,975	5,746	–2,152	–2,042
Credit	2,500	2,112	1,867	1,156	–161	–107
Operational risk	706	752	565	528	–220	–218
Other[1]	435	446	235	221		
Subtotal	**24,197**	**20,907**	**10,291**	**9,192**		
Diversification effect	–8,836	–7,764	–1,158	–1,985		
Tax	–2,793	–2,346	–787	–633		
Total	**12,568**	**10,798**	**8,347**	**6,574**	**–3,383**	**–2,702**

→	Group			
	31.12.2019	Prev. year		Change
	€m	€m	€m	%
Property-casualty	8,833	7,634	1,199	15.7
Life and health	6,359	5,288	1,071	20.3
Market	10,080	9,217	863	9.4
Credit	4,206	3,161	1,045	33.1
Operational risk	1,051	1,063	–12	–1.1
Other[1]	670	667	3	0.4
Subtotal	**31,199**	**27,030**	**4,169**	**15.4**
Diversification effect	–10,681	–9,912	–769	–7.8
Tax	–2,987	–2,448	–539	–22.0
Total	**17,531**	**14,670**	**2,861**	**19.5**

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

At Group level, the SCR increased slightly to €17.5bn compared with €14.7bn as at 31 December of the previous year. It was due to increases in almost all risk categories. The 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, movements in exchange rates and new business in life reinsurance. The main driver behind the increase in market risk is higher risk exposure in the reinsurance field of business and the effects of lower interest rates for the ERGO life insurance companies. The credit risk SCR is also rising as a consequence of lower interest rates, as the fair value of fixed-interest investments increases. This effect is more pronounced for the ERGO life insurance companies, as the fall in interest rates reduces the risk-mitigating effect of policyholders' bonuses. In comparison with the previous year, the mitigating effect of policyholders' participation in profits in the ERGO field of business is now shown in full in the individual risk categories, whereby ceteris paribus the values in the risk categories are reduced. In contrast, the diversification effect takes account of the fact that the risk-mitigating funds are only available once to absorb losses. This year, when calculating solvency capital requirements, for the first time account was taken of the static volatility adjustment for DKV Belgium S.A., ERGO Insurance N.V. (Belgium), ERGO Lebensversicherung Aktiengesellschaft and Victoria Lebensversicherung Aktiengesellschaft.

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. Additional information on risks in property-casualty insurance can be found in the Notes to the consolidated financial statements on pages 167 ff.

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 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. 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 €6.3bn (5.0bn) for Atlantic Hurricane and €5.9bn (4.9bn) for “Earthquake North America” (before tax, retained).

In addition to natural hazard risks, exposure to cyber risks has also increased once again year on year.

As well as analysing the stress scenarios, we also look 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 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 increase in capital requirements by 15.7% at Group level is mainly a consequence of the further increase in business exposed to natural hazards in the reinsurance field of business (including specialised primary insurance business) in line with our business strategy.

Solvency capital requirements (SCR) – Property-casualty

	Reinsurance		ERGO		Diversification	
	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year
	€m	€m	€m	€m	€m	€m
Basic losses	3,895	3,894	393	368	–243	–264
Large and accumulation losses	8,282	7,003	153	192	–108	–141
Subtotal	**12,177**	**10,896**	**545**	**559**		
Diversification effect	–3,403	–3,340	–111	–134		
Total	**8,774**	**7,557**	**434**	**425**	**-375**	**-347**

→	Group			
	31.12.2019	Prev. year		Change
	€m	€m	€m	%
Basic losses	4,044	3,997	47	1.2
Large and accumulation losses	8,327	7,053	1,274	18.1
Subtotal	**12,371**	**11,051**	**1,320**	**11.9**
Diversification effect	–3,537	–3,417	–120	–3.5
Total	**8,833**	**7,634**	**1,199**	**15.7**

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. More information on the risks in life and health business can be found in the Notes to the consolidated financial statements on pages 165 ff.

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 reinsurance field of business, particularly by exposure in North America and the Asia-Pacific region. The longevity risk driver can be found in the products marketed by ERGO in Germany, together with typical risks related to policyholder behaviour, such as the lapse risk, but above all we also underwrite longevity risk in the reinsurance field of business, especially in the United Kingdom. To a lesser extent, risks connected with the increase in treatment costs arise in the ERGO field of business in particular.

Risk modelling attributes probabilities to potential modified assumptions, and produces a complete profit and loss distribution. 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. We then aggregate the individual profit and loss 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

In the reinsurance field of business, the increase in solvency capital requirements is mainly due to lower interest rates, the depreciation of the euro against main currencies, and new business. In the ERGO field of business, lower euro interest rates result in a slight increase in solvency capital requirements.

Solvency capital requirements (SCR) – Life and health

	Reinsurance		ERGO		Diversification		Group	
	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year
	€m	€m	€m	€m	€m	€m	€m	€m
Health	304	292	602	517	–51	–42	855	766
Mortality	4,025	3,331	247	241	–16	–16	4,255	3,555
Disablity	2,970	2,373	418	313	–22	–15	3,366	2,671
Longevity	985	813	641	722	–26	–24	1,600	1,511
Other	484	290					484	290
Diversification	–3,242	–2,571	–694	–676			–4,200	–3,506
Total	**5,525**	**4,527**	**1,215**	**1,116**	**–380**	**–356**	**6,359**	**5,288**

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 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 options is taken into account in the calculation of solvency capital requirements. Information on derivative financial instruments can be found in the Notes to the consolidated financial statements on pages 140 ff.

Solvency capital requirements (SCR) – Market

	Reinsurance		ERGO		Diversification	
	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year
	€m	€m	€m	€m	€m	€m
Equity risk	2,792	2,433	1,479	1,169	–109	–50
General interest-rate risk	1,549	1,194	2,800	3,362	–1,338	–891
Specific interest-rate risk	1,623	1,381	3,081	2,530	–632	–692
Property risk	1,540	1,442	758	787	–55	–91
Currency risk	4,457	3,633	232	220	–59	–80
Subtotal	**11,962**	**10,084**	**8,348**	**8,068**		
Diversification effect	–5,080	–4,572	–1,469	–2,321		
Total	**6,257**	**5,513**	**5,975**	**5,746**	**–2,152**	**–2,042**

	Group			
	31.12.2019	Prev. year		Change
	€m	€m	€m	%
Equity risk	4,162	3,552	610	17.2
General interest-rate risk	3,012	3,664	–652	–17.8
Specific interest-rate risk	4,071	3,220	851	26.4
Property risk	2,243	2,138	105	4.9
Currency risk	4,630	3,773	857	22.7
Subtotal	**18,118**	**16,348**	**1,770**	**10.8**
Diversification effect	–6,682	–7,131	449	6.3
Total	**10,080**	**9,217**	**863**	**9.4**

Solvency capital requirement – Market

Equity risk

The higher equities exposure after derivatives of 6.4% compared with the previous year (5.2%) was reflected in a rise in the solvency capital requirement.

Interest-rate risk

The rise in the general and specific interest-rate risk in the reinsurance field of business was the result of an increased interest-rate exposure due to a lower degree of matching maturities between investments and liabilities, and a moderate increase in credit risk exposure. As the interest-rate exposure of reinsurance runs contrary to that of ERGO, this has a risk-minimising effect at Group level.

In the ERGO field of business, the change in reporting of the effect of policyholders' participation in profits and the introduction of static volatility adjustment will lead initially ceteris paribus to a reduction in the market risk figures. In specific interest-rate risk, this effect is overcompensated by the fact that the available risk buffers in the life units are reduced by the general decline in interest rates, leaving more specific interest-rate risk with the shareholder.

In the reinsurance field of business, the market value of interest-sensitive investments as at 31 December 2019 was €71,0bn (€67.8bn). Measured in terms of modified duration, the interest-rate sensitivity of those investments was 6.5 (5.0), while the modified of the liabilities[1] was 6.3 (5.8). A decrease in interest rates of one basis point would increase available own funds by ca. €11.8m (4.0m).

In the ERGO field of business, the fair value of interest-sensitive investments was €134.4bn (127.8bn). The modified duration was 9.4 (8.8) for interest-sensitive investments and 10.1 (9.2) for liabilities. A decrease in interest rates of one basis point would decrease available own funds by approximately €12.5m (7.6m). This resulted in exposure to falling interest rates arising mainly out of the long-term options and guarantees in life insurance business.

Property risk

As a consequence of increases in market values of our property portfolio, property risk is increasing.

Currency risk

The currency risk is rising, primarily due to an increase in US dollar positions.

1 The liabilities mainly refer to technical provisions under Solvency II (best estimate and risk margin).

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 both 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 the ratings of the fixed-interest securities and loans can be found in the Notes to the consolidated financial statements on pages 138 ff.

Risk concentrations are mainly in government bonds issued by countries inside and outside the European Union. In addition, pfandbriefs 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 credit-equivalent exposure (CEE). 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. Exposure to issuers of interest-bearing securities and CDSs in the financial sector is limited by a financial sector limit at Group level.

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 both our investments and our liability structure, and with our active Group-wide asset-liability management.

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

%	31.12.2019	Prev. year
AAA	0.6	0.0
AA	21.9	27.8
A	36.6	31.2
BBB and lower	6.8	8.5
No rating available	34.1	32.6

Further information on the risks arising out of receivables relating to insurance business can be found in the Notes to the consolidated financial statements on page 142.

Solvency capital requirement – Credit

In comparison with the previous year, credit risk rose by €1,045m to €4,206m. This was mainly driven by the fall in interest rates, which duly increased the credit risk SCR due to increases in the fair value of fixed-interest securities. This effect is more pronounced for the ERGO life insurance companies, as the fall in interest rates reduces the risk-mitigating effect of policyholders' bonuses.

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.

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 regular 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

The SCR requirement for operational risk as at 31 December 2019 was €1,051m, slightly lower than in the previous year.

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 Chief Risk Officer is involved in operational business planning and the processes for significant company 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.

Security risk committees have been set up in the fields of business to steer and coordinate measures aimed at managing 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, the Information Security Officer, data protection) and representatives of the divisional units and central divisions. The role of Group Chief Information Security Officer with central and Group-wide responsibility for information security has been created to strengthen the risk management function in this area.

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. Additional expansion of human resources in cyber security 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 insurance catastrophe scenarios and for adverse situations in the capital markets.

Further information on liquidity risks in life and health insurance business and in property-casualty business can be found in the Notes to the consolidated financial statements on pages 165 ff. and 167 ff.

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]

		31.12.2019	Prev. year	Change
Eligible own funds[2]	€m	41,544	35,995	5,549
Solvency capital requirement	€m	17,531	14,670	2,861
Solvency II ratio	%	237.0	245.4	

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 €48.1bn (€43.2bn); Solvency II ratio: 274% (295%).

2 Economic earnings increased the eligible own funds as at the reporting date by a total of around €7.4bn. At the same time, the dividend approved by the Board of Management and proposed to the Annual General Meeting for the 2019 financial year and the potential 2019/2020 share buy-back had a reducing effect of approximately €2.4bn. There is also a further €0.5bn for other measures.

The eligible own funds as at the balance sheet date take into account deductions for the dividend agreed by the Board of Management and proposed to the Annual General Meeting for the 2019 financial year of €1.4bn, and purchases not yet made under the share buy-back programme for 2019/2020 in the amount of €339m. In order to make the effects of potential further capital measures on the Solvency II ratio transparent to financial statement users, we further recognise a possible share buy-back programme for 2020/2021 in the amount of €1bn.

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 in the eurozone. We take various risk management measures to counter fluctuations in the capital markets that can lead to volatilities in the Company’s own funds.

The further course of the trade dispute between the USA and China and the threat of a possible pandemic in connection with the Coronavirus currently represent significant risk factors for global economic development. Slower global growth would pose new challenges for export-dependent countries, especially many emerging markets. 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 conflict between the USA and North Korea, the various crises in the Middle East, and a possible intensification of the USA’s confrontation with Iran or Russia. 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, including those resulting from the conflict of national interests. In Italy, refinancing costs have fallen significantly since the change of government in 2019, and the new government seems willing to compromise to pursue an EU-friendly course. In addition, the European Central Bank has reduced potential tensions by further relaxing monetary policy. A return to a tighter monetary policy – for example, due to an unexpectedly rapid rise in inflation – could lead to higher borrowing costs for Italy and some other countries. Higher credit spreads and possible falls in ratings would lead to corresponding falls in market values for the bonds of the affected countries.

The exit negotiations between the EU and the United Kingdom have been concluded, and the United Kingdom officially left the EU on 31 January 2020. A transition phase has come into force until the end of 2020, by which time the negotiations concerning the future relationships between the EU and the United Kingdom should be concluded – with a special focus on trading relationships. As the UK has so far strictly refused to accept that there may be an extension of the transition phase, there is a risk that negotiations will not be concluded in time and that trade between the two regions will be on the basis of WTO rules as from 2021. This would imply a significant deterioration of the status quo, with corresponding consequences for the individual EU countries. A number of Munich Re insurance and reinsurance units conduct business in the United Kingdom, and the UK's departure from the EU will have implications for that business. We have adapted our local organisations to the direct effects of Brexit. These preparation measures will enable Munich Re to continue to write business in the UK, regardless of the outcome of the negotiations. In addition, there may be indirect effects on our business – for instance, owing to negative economic development, wider fluctuations in exchange rates or rising inflation. As things stand at present we do not expect 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 Federal Government. At the present time, however, it is not possible to predict what these implications might be.

Global players such as Munich Re are subject to increased fiscal pressure nationally and internationally, as well as a higher audit intensity. This trend is likely to become event stronger given the political spotlight on the taxation of international enterprises.

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.

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. During the whole of 2019, risk exposures were regularly quantified and compared with the risk appetite. We assess Munich Re's risk situation to be manageable and under control.

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 economic growth will remain solid, even though some financial indicators were less robust in the year under review. If the important macroeconomic parameters that are especially relevant to us improve even more strongly, then additional business opportunities will open up for us. Stronger economic growth tends to have a positive impact on the demand for insurance cover, and triggers higher premium volume in most classes of insurance.

Interest rates remain low and this continues to pose many challenges for our own investments and creates a variety of difficulties for our cedants, particularly in life insurance. Though at the same time, the situation is also creating new opportunities for our reinsurance business. 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.

Digital transformation

Digitalisation is increasingly transforming the markets, and the corresponding 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 is therefore one of Munich Re's strategic priorities.

On the one hand, we are continually adjusting our internal structures and processes to reduce complexity and costs, while at the same time seizing the opportunities that the 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 investment management.

On the other hand, 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 the work of our Digital Ventures unit, 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' changing and increasingly 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. Beyond investments in products for ERGO's hybrid customers, we have established nexible, ERGO's purely digital insurer. Since its successful start in Germany, nexible has expanded into other European countries and aims to further broaden its product range.

Besides expanding our own digital expertise, we also plan to strategically acquire or partner with different promising technology companies to continue generating growth. For example, in addition to smaller excursions into venture capital, we increased our share in Next Insurance, in order to better seize the potential for digital insurance solutions on the SME market in the USA. By integrating the services offered by the Internet of Things provider Relayr, which we acquired last year, and by cooperating with key players on the industrial IoT market, we are driving new business models and helping shape the transformation of the manufacturing industry. For this purpose, we recently pooled all our IoT activities together into a single unit for the entire Group.

Social trends

The generally positive economic dynamics and low levels of insurance penetration in many developing and emerging markets provide opportunities to profitably expand and further diversify our business portfolio, and we are utilising these in order to expand strategically. An ageing population coupled with diminishing state benefits are leading to greater 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. As reinsurers, we also offer integrated reinsurance and financial solutions to life insurance companies outside of the Group.

Climate change and natural catastrophes

We expect climate change to lead to an increase in weather-related natural catastrophes in the long term. 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, pandemic risks, or agro and entrepreneurial risks.

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. It follows that 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. The pronounced volatility of the capital markets and exchange rates also makes this difficult. Thus, there may be significant fluctuations in the investment result, currency result and consolidated result, despite the fact that our assets are geared to the characteristics of our liabilities.

Comparison of the prospects for 2019 with the result achieved

Munich Re (Group)

Comparison of prospects for Munich Re (Group) for 2019 with results achieved

		Target 2019	Result 2019
Gross premiums written	€bn	49	51.5
Technical result life and health reinsurance[1]	€m	500	456
Combined ratio property-casualty reinsurance	%	98	101.0
Combined ratio ERGO Property-casualty Germany	%	93	92.3
Combined ratio ERGO Property-casualty International	%	95	94.3
Return on investment[2]	%	3	3.2
Consolidated result	€bn	2.5	2.7
Economic earnings	€bn	over 2.5	7.4

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

At the beginning of the year, we projected gross premium of around €49bn for Munich Re for the 2019 financial year. After a good performance in the first nine months, especially in reinsurance, we raised our forecast to more than €49bn. At €51.5bn, we significantly exceeded this target figure.

For the 2019 financial year, we had forecast a consolidated result of around €2.5bn. After the good performance in the first nine months, we increased this forecast to over €2.5bn. And despite high losses from natural catastrophes having a negative impact on the result in the second half of the year, we exceeded this figure at €2.7bn.

The 2019 investment result generated a return of 3.2% in relation to the average market value of our portfolio. This figure is higher than the original target return on investment of around 3%, due in particular to high gains on disposal of fixed-interest securities and equities.

For the 2019 financial year, we set the target for economic earnings at "over €2.5bn", which we significantly exceeded. Economic earnings totalled €7.4bn, with the high level primarily due to positive operating variances for in-force business in reinsurance and at ERGO, as well as variances attributable to favourable capital market developments. The increase in share prices, the reduction in risk spreads on fixed-interest securities, the appreciation of important foreign currencies against the euro, and the positive performance of investments in real estate and infrastructure significantly offset adverse effects from the decline in risk-free interest rates.

Reinsurance

At the beginning of the financial year, we had forecast gross premiums written of around €31bn in the reinsurance field of business. After the good performance in the first three quarters, we raised the forecast to over €31bn. At €33.8bn, we significantly exceeded the forecast. Favourable exchange rate developments and in particular expanding our business in Asia had a positive effect on life and health reinsurance. Premium volume in property-casualty reinsurance significantly exceeded our expectations thanks to the expansion of business in nearly all segments and regions.

At the beginning of the year, we had forecast a technical result (including the result from business with non-significant risk transfer) of €500m for life and health reinsurance. The result of €456m did not meet this target. This is primarily attributable to claims burdens from Australian disability business, which were only partially offset by good results in the USA and Europe.

The combined ratio envisaged for property-casualty reinsurance at the beginning of the financial year was 98% of net earned premiums. With a combined ratio of 101.0% for the financial year, we did not meet this target. This was mainly due to high major losses in the financial year, which at a share of 15.2% of net earned premiums was significantly above the major loss expectation of 12% of net premiums.

At €2.3bn, the consolidated result for 2019 in reinsurance was above our forecast, which we had raised from around €2.1bn to over €2.1bn after the good performance in the first three quarters.

ERGO

At the beginning of the financial year, we had forecast gross premiums written of around €17.5bn for the ERGO field of business. We slightly exceeded the forecast at €17.7bn. Our forecast at the start of the year for the combined ratio of the ERGO Property-casualty Germany segment had been around 93% – provided major losses remained within normal bounds. Declining major-loss expenditure from natural catastrophes and positive claims experience in the core business meant that, at the end of 2019, we exceeded our expectations at 92.3%.

At the beginning of the year, we had aimed for a combined ratio of around 95% in the ERGO International segment, provided major losses remained within normal bounds. As the combined ratio saw a significant improvement, especially in Greece after a negative special effect in the previous year, at the end of the financial year the combined ratio was a pleasing 94.3%.

At the beginning of the year, as part of the ERGO Strategy Programme we had set a profit target of around €400m for the ERGO field of business. With an annual result of €440m, we exceeded this target. The main reason was pleasing development in the ERGO Life and Health Germany segment.

Outlook 2020

Outlook for Munich Re (Group)

		2020
Gross premiums written	€bn	52
Technical result life and health reinsurance[1]	€m	550
Combined ratio property-casualty reinsurance	%	97
Combined ratio ERGO Property-casualty Germany	%	92
Combined ratio ERGO Property-casualty International	%	94
Return on investment[2]	%	3
Consolidated result	€bn	2.8
Economic earnings	€bn	over 2.8

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

Reinsurance

Gross premium volume in reinsurance as a whole should be around €34bn in 2020, i.e. roughly at the same level as the previous year. Currency translation effects could potentially have a considerable impact on this estimate. In reinsurance, the consolidated result should be around €2.3bn, as in the previous year.

In life and health reinsurance, we expect an increasing result contribution. We aim to achieve a technical result of around €550m, including the result from business with non-significant risk transfer.

We expect a combined ratio of around 97% of net earned premiums in property-casualty reinsurance. The decrease in this ratio will be achieved with a change in the method of cost allocation, which should result in a 0.5–1.0 percentage point reduction. At 12% of net earned premiums, our major-loss expectation remains the same as in the previous year, namely almost €2.5bn.

The reinsurance renewals as at 1 January 2020 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 moderately (+1.2%). Economic profitability was negatively impacted by the sustained low level of interest rates.

As at 1 January 2020, around two-thirds of the non-life reinsurance business was up for renewal, representing a premium volume of €10.2bn. Total premium volume written increased by 4.4% to around €10.7bn. 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 2020 (above all in Japan) and 1 July 2020 (parts of the portfolio in the USA, Australia and Latin America) will involve the renegotiation of a premium volume of around €5.3bn in reinsurance treaty business. It is Munich Re's expectation that the market environment will improve in the April renewals, as treaties in regions with significant claims burden in 2019, such as Japan, will then be renegotiated.

ERGO

Gross premiums written in the ERGO field of business in 2020 should be around the previous year's level at just over €17.5bn. We expect a higher consolidated result for the ERGO field of business than in the previous year – around €530m in 2020.

The combined ratio for the Property-casualty Germany segment should be around 92% provided that major losses are at a normal level.

Assuming a normal claims experience, we are aiming for a combined ratio of around 94% in the ERGO International segment.

Munich Re (Group)

We estimate that the Group's gross premiums written will total around €52bn in 2020.

Overall, we expect an annual investment return of around 3%.

We aim to achieve a consolidated result of around €2.8bn, which is €0.1bn higher than the previous year's figure. 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 2020 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 also based on the assumption of stable conditions and capital markets, normal major-loss incidence and unchanged modelling parameters. 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 on page 55.

In the period from May 2019 to the end of February 2020, we repurchased shares with a value of €847m; another €153m is to be used for share buy-backs before the Annual General Meeting in April 2020. We are using this measure to return capital that we do no need to shareholders. Despite the buy-backs, our good capital position will allow us to continue paying attractive dividends and selectively utilising opportunities for profitable growth.

Subject to approval by the Annual General Meeting, the dividend will rise by 55 cents to €9.80 per share. This is equivalent to a total payout of €1.4bn.

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

For the 2019 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. Further information on this can be found on page 54.

Business performance

In the 2019 financial year, Munich Reinsurance Company's business performance was satisfactory overall. Major-loss expenditure was above the expected range, especially owing to high losses from typhoons in Asia in the second half of the year, and thus significantly higher than in the previous year. 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

	2019	Prev. year	Change
	€m	€m	%
Earned premiums for own account	18,734	16,856	11.1
Interest on technical provisions for own account	367	398	–7.6
Other underwriting income for own account	16	18	–13.3
Claims incurred for own account	–13,535	–11,562	–17.1
Change in other technical provisions for own account	229	418	–45.2
Expenses for performance-related and non-performance-related premium refunds for own account	–1	0	–
Operating expenses for own account	–5,641	–4,964	–13.6
Other underwriting expenses for own account	–7	–133	94.8
Subtotal	**162**	**1,031**	**–84.3**
Change in claims equalisation provision and similar provisions	–795	–780	–1.9
Underwriting result for own account	**–632**	**251**	**–**
Investment income	4,856	4,789	1.4
Investment expenses	–1,754	–2,305	23.9
Interest income on technical provisions	–391	–403	3.0
Other income	1,288	465	177.0
Other expenses	–1,340	–617	–117.3
Non-technical result	**2,658**	**1,929**	**37.8**
Operating result before tax	**2,026**	**2,179**	**–7.0**
Taxes on income and profit and other taxes	–534	–20	<–1.000,0
Profit for the year	**1,492**	**2,160**	**–30.9**
Profit brought forward from previous year	48	47	2.3
Transfers from other revenue reserves	0	0	–
Appropriations to revenue reserves	–126	–824	84.8
Net retained profits	**1,414**	**1,383**	**2.2**

Technical result

In the 2019 financial year, Munich Reinsurance Company's gross premium income totalled €22,814m (20,503m). The year-on-year increase of 11.3% was mainly due to the conclusion of new business and the expansion of in-force business. Changes in the value of the euro as against other currencies also played a role in the increase in premium income.

Gross premium volume in life and health reinsurance in 2019 was much higher than in the previous year. Gross premium rose by 14.6% to €8,041m (7,014m), chiefly on account of business growth in Asia and the persistently high demand for financially motivated reinsurance. If exchange rates had remained unchanged, our premium income in life and health reinsurance would have increased by 12.3%.

In property-casualty reinsurance, we posted growth in gross premium income of 9.5% to €14,773m (13,489m) in 2019. The increase was due to an expansion of business across almost all lines and regions, buoyed by positive currency translation effects. If exchange rates had remained the same, premium volume would have been up by 7.4%.

Reinsurance treaty renewals once again took place in a very competitive market environment. Nevertheless, the moderately positive development in prices continued with a slight increase of 0.3%, after the marginally positive price trend of 0.8% in the previous year. This increase was particularly due to the regions hit by natural catastrophes. We were able to expand our business selectively in individual markets. In other regions and lines of business, prices remained largely stable or increased slightly. Overall, we are adhering to our profit-oriented underwriting policy.

The underwriting result before claims equalisation provision amounted to €162m in the 2019 financial year, compared with a profit of €1,031m in the previous year. This decline in the result was primarily due to much higher major-loss expenditure in comparison with the previous year and some losses in life reinsurance. A customary review of provisions for the full year resulted in a reduction in the provisions for claims from prior years, which was at a higher level than in the previous year. Over the years, the safety margin in the provisions has remained unchanged at a high level.

Major-loss expenditure totalling €2,686m (1,316m) after retrocession and before tax was significantly higher than in the previous year and above our expectations. There were also a large number of major losses in 2019, the largest by far being the typhoons Hagibis and Faxai, which caused severe damage in Japan in September and October.

Owing to further major loss events, aggregate natural catastrophe losses were significantly higher than in the previous year and totalled €1,884m (€599m). In terms of net earned premium, aggregate natural catastrophe losses accounted for 13.3 (4.7) percentage points of the loss ratio.

In property-casualty reinsurance, man-made major losses totalled €790m (686m), equivalent to 5.6 (5.4) percentage points of net earned premium.

The combined ratio, which reflects the relation of claims and costs to net earned premiums, came to 98.4% (95.3%), mainly owing to the above effects.

Performance of the classes of business

Life

		2019	Prev. year	Change
				%
Gross premium written	€m	6,616	5,754	15.0
Underwriting result before claims equalisation provision and similar provisions	€m	-61	447	–

In life reinsurance, the increase in premium income was mainly due to business expansion in Asia and the ongoing high demand for financially motivated reinsurance.

The technical result is significantly below the level of the previous year. This was mainly due to negative impacts from our Australian disability business.

Health

		2019	Prev. year	Change
				%
Gross premium written	€m	1,425	1,260	13.1
Combined ratio	%	98.8	97.0	
Underwriting result before claims equalisation provision and similar provisions	€m	14	32	-56.3

Premium income in health reinsurance increased slightly in the reporting year thanks to new business and business expansion, in particular in Asia and Canada. By contrast, the result saw a modest decrease year on year due to an increase in the expense ratio.

Personal accident

		2019	Prev. year	Change
				%
Gross premium written	€m	330	261	26.4
Combined ratio	%	57.8	4.5	
Underwriting result before claims equalisation provision and similar provisions	€m	125	225	-44.4

In personal accident reinsurance, premium income was up in the reporting year. The result before claims equalisation provision decreased substantially owing to higher claims expenditure than in the previous year.

Third-party liability

		2019	Prev. year	Change
				%
Gross premium written	€m	2,220	1,937	14.6
Combined ratio	%	79.2	106.7	
Underwriting result before claims equalisation provision and similar provisions	€m	440	-123	–

In third-party liability reinsurance, premium income increased in the reporting year mainly on account of business growth. Higher reserve releases for claims from prior accident years caused the technical result before claims equalisation provision to improve significantly compared with the previous year.

Motor

		2019	Prev. year	Change
				%
Gross premium written	€m	3,788	3,953	-4.2
Combined ratio	%	97.0	106.7	
Underwriting result before claims equalisation provision and similar provisions	€m	98	-217	–

Premium volume in motor reinsurance was down slightly in the reporting year, mainly because of the termination of a large-volume treaty in Asia. By contrast, the technical result improved compared with the previous year, essentially owing to increased reserve releases for claims from prior accident years.

Marine

		2019	Prev. year	Change
				%
Gross premium written	€m	394	317	24.3
Combined ratio	%	86.7	30.0	
Underwriting result before claims equalisation provision and similar provisions	€m	42	180	-76.7

Premium income in marine reinsurance increased in the reporting year. The technical result before claims equalisation provision decreased year on year owing to higher major-claims expenditure.

Aviation

		2019	Prev. year	Change
				%
Gross premium written	€m	492	392	25.5
Combined ratio	%	166.3	86.0	
Underwriting result before claims equalisation provision and similar provisions	€m	-315	58	–

Premium income in aviation reinsurance, which comprises the aviation and space classes, saw an increase in the financial year because of new business and business growth. The underwriting result before claims equalisation provision, which in the previous year had shown a profit, moved into negative territory, largely owing to a substantial year-on-year increase in major-loss expenditure.

Fire

		2019	Prev. year	Change
				%
Gross premium written	€m	4,099	3,658	12.1
Combined ratio	%	112.3	91.9	
Underwriting result before claims equalisation provision and similar provisions	€m	–410	237	–

The increase in premium income in fire reinsurance was largely attributable to new business and business growth in various markets. The underwriting result before claims equalisation, which had reflected a profit in the previous year, was significantly negative in the reporting year, mainly on account of a stark rise in major-loss expenditure, including typhoon losses in Asia.

Engineering

		2019	Prev. year	Change
				%
Gross premium written	€m	647	613	5.5
Combined ratio	%	77.8	94.8	
Underwriting result before claims equalisation provision and similar provisions	€m	131	29	351.7

In engineering reinsurance (machinery, EAR, CAR, EEI, etc.), premium income increased slightly on the previous year. The technical result improved year on year, mainly thanks to a fall in major-loss expenditure.

Other classes

		2019	Prev. year	Change
				%
Gross premium written	€m	2,804	2,358	18.9
Combined ratio	%	96.0	92.3	
Underwriting result before claims equalisation provision and similar provisions	€m	99	163	–39.3

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.

Premium income increased year on year, mainly due to business growth. The combined technical result of these other classes of business decreased compared with the previous year, primarily due to higher major-loss expenditure.

Non-technical result

Both the European Central Bank (ECB) and the US Federal Reserve pivoted their monetary policy during 2019. The ECB cut the interest rate for deposits. In addition, the Bank resumed making monthly net purchases as part of its asset purchase programme. The Fed lowered its policy rate corridor three times in 2019, and ended its balance-sheet reduction programme. Yields on government bonds were impacted by monetary policy easing, weaker economic growth, lower inflation, and political risks – particularly the trade war between the United States and China. Yields on ten-year German government bonds dropped to a new all-time low at one point in the year – and remained in negative territory at the end of 2019. There was an even greater decline in yields on ten-year US government bonds.

Monetary policy easing boosted stock markets over the course of 2019. Important stock indices such as the US Dow Jones index and the Euro STOXX 50 closed the year with substantial gains. The trade war between the USA and China led to volatility, with prospects of renewed escalation dragging down share prices and news of an impending trade agreement boosting the markets.

At the end of 2019, the euro exchange rate was lower than in the previous year against the US dollar, the Canadian dollar and the pound sterling. Compared with the previous year, the average value of the euro in 2019 was much lower against the US dollar and the Canadian dollar, and slightly lower against the pound sterling. Because of ongoing uncertainty about Brexit, the pound sterling fluctuated considerably throughout 2019.

In the 2019 financial year, Munich Reinsurance Company's return on investment (including deposits retained on assumed reinsurance) totalled 4.1% (3.3%) on the basis of carrying amounts.

Investment result

€m	2019	Prev. year
Regular income	2,351	1,659
Write-ups and write-downs	301	37
Realised gains/losses on the disposal of investments	376	980
Other income/expenses	74	–194
Total	**3,102**	**2,483**

In the 2019 financial year, Munich Reinsurance Company's investment result was up by €619m, mainly due to an increase in regular income, in particular from associated companies.

On the whole, counter-effects from impairment losses and reversals of impairment losses, from gains on disposals, and from other return on investment nearly balanced each other out.

Profit for the year

Munich Reinsurance Company generated a profit of €1,492m (2,160m). The much improved investment result could not fully compensate for a fall in the technical result or the greater tax burden.

The increase in tax expenses compared to the previous year is attributable to the German parent company's higher tax burden from previous years and higher taxes incurred by the branches for the current year.

Financial position

Balance sheet structure of Munich Reinsurance Company

€m	2019	Prev. year	Change
	€m	€m	%
Intangible assets	167	186	–10.2
Investments	75,622	74,450	1.6
Receivables	16,526	10,184	62.3
Other assets	655	971	–32.5
Deferred items	203	355	–42.7
Excess of plan assets over pension liabilities	570	453	25.9
Total assets	**93,743**	**86,598**	**8.3**
Equity	10,894	11,701	–6.9
Subordinated liabilities	3,681	3,651	0.8
Technical provisions	63,431	59,133	7.3
Other provisions	2,001	1,991	0.5
Deposits retained on retroceded business	1,751	1,407	24.4
Other liabilities	11,957	8,686	37.7
Deferred items	28	28	0.2
Total equity and liabilities	**93,743**	**86,598**	**8.3**

In the 2019 financial year, Munich Reinsurance Company generated net retained profits of €1,414m (1,383m) according to German accountancy rules (HGB). Including these net retained profits, the Company's revenue reserves amounted to €3,474m (4,283m) as at the reporting date, of which €523m (465m) is subject to a restriction on distribution. The distributable funds thus amount to €2,951m (3,818m).

The shareholders' equity of Munich Reinsurance Company as determined under German accountancy rules is protected effectively against the risk of loss arising from a random accumulation of losses by the claims equalisation provision totalling €9,261m (8,479m). 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 increased dividend of €9.80 per share for the 2019 financial year, or €1,374m 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 €64,465m (64,296m).

As at 31 December 2019, 96% of our fixed-interest securities were investment-grade, and around 89% were rated "A" or better.

Equity[1]

€m	2019	Prev. year
Issued capital	576	573
Capital reserve	6,845	6,845
Revenue reserves	2,059	2,900
Net retained profits	1,414	1,383
Equity	**10,894**	**11,701**

1 Information on Section 160(1) no. 2 of the German Stock Corporation Act (AktG) can be found under Note 6 of Munich Reinsurance Company's Annual Report 2019.

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.

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 2020 financial year – the allocations to the claims equalisation provision, which have an adverse impact on the result, will be slightly 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 €795m to €9,837m (9,043m) in the 2019 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 credit €480m (81m), third-party liability €226m (190m), personal accident €174m (82m), motor €164m (150m), engineering €145m (37m) and marine €40m (–41m).

By contrast, due to negative results a total of –€337m (152m) in fire and –€109m (103m) in the other classes of business were withdrawn from the claims equalisation provision.

No claims equalisation provision is currently established for aviation, as the conditions for setting aside a provision in this class of business are not met.

The current level of the claims equalisation provision is 100% of the legally stipulated maximum amount allowed in the third-party liability and motor classes of business, and more than 50% in fire, 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 2019 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 are in the section on corporate governance on page 16. 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. This Statement includes corporate governance reporting within the meaning of the German Corporate Governance Code.

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 on pages 73 ff. and in the opportunities report on pages 83 f.

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. The remuneration report can be found on pages 36 ff.

Other information

On 31 December 2019, Munich Reinsurance Company had 3,916 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 will find this information on page 85.

Against this background, Munich Reinsurance Company should post gross premium of around €22bn in the 2020 financial year – assuming that exchange rates remain constant. We expect the combined ratio to be around 97% 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, we project that the underwriting result before claims equalisation provision for the 2020 financial year will be slightly higher than in the reporting year.

The investment result of Munich Reinsurance Company is expected to remain largely stable in the 2020 financial year. For regular income, we expect a moderate decrease in income from affiliated companies.

As things stand at present, we expect the German GAAP (HGB) result in 2020 to be higher than in the reporting year.

Consolidated financial statements and notes

Consolidated balance sheet as at 31 December 2019[1]

Assets

	Notes			31.12.2019	Prev. year		Change
		€m	€m	€m	€m	€m	%
A. Intangible assets							
I. Goodwill	(1)		2,941		2,904	37	1.3
II. Other intangible assets	(2)		1,240		1,161	79	6.8
				4,180	**4,064**	**116**	**2.9**
B. Investments							
I. Land and buildings, including buildings on third-party land	(3)		5,989		5,851	138	2.4
II. Investments in affiliated companies, associates and joint ventures	(5)		2,847		2,509	338	13.5
Thereof: Associates and joint ventures accounted for using the equity method			2,625		2,296	328	14.3
III. Loans	(6)		52,507		54,845	–2,338	–4.3
IV. Other securities							
1. Available for sale	(7)	151,558			139,272	12,285	8.8
2. At fair value through profit or loss	(8)	2,781			2,616	165	6.3
			154,338		141,888	12,450	8.8
V. Deposits retained on assumed reinsurance	(9)		7,938		7,241	698	9.6
VI. Other investments	(10)		5,144		4,518	626	13.9
				228,764	**216,852**	**11,912**	**5.5**
C. Insurance-related investments	**(8)**			**9,163**	**8,424**	**738**	**8.8**
D. Ceded share of technical provisions	**(11)**			**4,937**	**4,263**	**674**	**15.8**
E. Receivables							
I. Current tax receivables			699		604	95	15.8
II. Other receivables	(12)		21,539		17,239	4,301	24.9
				22,238	**17,842**	**4,396**	**24.6**
F. Cash at banks, cheques and cash in hand				**4,994**	**4,986**	**8**	**0.2**
G. Deferred acquisition costs	**(13)**						
Gross			9,664		9,466	198	2.1
Ceded share			–393		–254	–139	–54.7
Net				9,272	9,212	59	0.6
H. Deferred tax assets	**(14)**			**316**	**545**	**–229**	**–42.0**
I. Other assets	**(15)**			**3,289**	**2,950**	**339**	**11.5**
J. Assets held for sale	**(16)**			**400**	**1,029**	**–628**	**–61.1**
Total assets				**287,553**	**270,168**	**17,386**	**6.4**

1 You will find this information as a downloadable Excel file in the financial supplement under www.munichre.com/results-reports.

Equity and liabilities

	Notes	31.12.2019		Prev. year	Change	
		€m	€m	€m	€m	%
A. Equity	(17)					
I. Issued capital and capital reserve		7,421		7,418	3	0.0
II. Retained earnings		12,804		13,201	-397	-3.0
III. Other reserves		7,510		3,440	4,070	118.3
IV. Consolidated result attributable to Munich Reinsurance Company equity holders		2,724		2,310	415	18.0
V. Non-controlling interests		117		131	-14	-11.0
			30,576	**26,500**	**4,076**	**15.4**
B. Subordinated liabilities	**(19)**		**3,839**	**3,689**	**150**	**4.1**
C. Gross technical provisions						
I. Unearned premiums	(20)	10,518		9,790	728	7.4
II. Provision for future policy benefits	(21)	112,302		111,147	1,155	1.0
III. Provision for outstanding claims	(22)	70,875		66,356	4,519	6.8
IV. Other technical provisions	(23)	21,011		17,314	3,697	21.4
			214,706	**204,607**	**10,099**	**4.9**
D. Gross technical provisions for unit-linked life insurance	**(24)**		**8,172**	**7,925**	**247**	**3.1**
E. Other provisions	**(25)**		**5,291**	**4,383**	**908**	**20.7**
F. Liabilities						
I. Bonds and notes issued	(26)	297		292	5	1.9
II. Deposits retained on ceded business	(27)	1,028		506	523	103.4
III. Current tax liabilities		1,913		1,929	-15	-0.8
IV. Other liabilities	(28)	19,643		18,147	1,497	8.2
			22,882	**20,872**	**2,010**	**9.6**
G. Deferred tax liabilities	**(14)**		**1,908**	**1,368**	**540**	**39.4**
H. Liabilities related to assets held for sale	**(16)**		**179**	**823**	**-644**	**-78.2**
Total equity and liabilities			**287,553**	**270,168**	**17,386**	**6.4**

Consolidated income statement for the 2019 financial year[1, 2]

	Notes			2019	Prev. year		Change
		€m	€m	€m	€m	€m	%
Gross premiums written		**51,457**			**49,064**	**2,393**	**4.9**
1. Earned premiums	**(30)**						
Gross		50,873			48,019	2,854	5.9
Ceded share		–2,594			–2,284	–309	–13.5
Net			48,280		45,735	2,545	5.6
2. Income from technical interest	**(31)**		**6,729**		**4,667**	**2,062**	**44.2**
3. Expenses for claims and benefits	**(32)**						
Gross		–41,058			–36,366	–4,692	–12.9
Ceded share		1,373			1,250	123	9.9
Net			–39,685		–35,116	–4,569	–13.0
4. Operating expenses	**(33)**						
Gross		–13,809			–13,105	–704	–5.4
Ceded share		560			518	42	8.0
Net			–13,249		–12,587	–663	–5.3
5. Technical result (1–4)				**2,074**	**2,699**	**–624**	**–23.1**
6. Investment result	**(34)**		**7,737**		**6,526**	**1,211**	**18.6**
Thereof: Income from associates and joint ventures accounted for using the equity method			207		187	20	10.8
7. Insurance-related investment result	**(35)**		**1,176**		**–685**	**1,861**	**–**
8. Other operating income	**(36)**		**1,093**		**827**	**266**	**32.1**
9. Other operating expenses	**(36)**		**–1,347**		**–976**	**–372**	**–38.1**
10. Deduction of income from technical interest			**–6,729**		**–4,667**	**–2,062**	**–44.2**
11. Non-technical result (6–10)				**1,930**	**1,027**	**903**	**88.0**
12. Operating result				**4,004**	**3,725**	**279**	**7.5**
13. Other non-operating result	**(37)**			**–665**	**–639**	**–26**	**–4.0**
14. Currency result	**(37)**			**73**	**–39**	**112**	**–**
15. Net finance costs	**(37)**			**–222**	**–196**	**–26**	**–13.4**
16. Taxes on income	**(38)**			**–483**	**–576**	**93**	**16.1**
17. Consolidated result				**2,707**	**2,275**	**432**	**19.0**
Thereof: Attributable to Munich Reinsurance Company equity holders				2,724	2,310	415	18.0
Attributable to non-controlling interests	(17)			–17	–34	17	50.8
	Notes			€	€	€	%
Earnings per share	**(52)**			**18.97**	**15.53**	**3.43**	**22.1**

1 Previous year's figures adjusted owing to IAS 1 and IAS 8; see "Changes in accounting policies and other adjustments".
2 You will find this information as a downloadable Excel file in the financial supplement under www.munichre.com/results-reports.

Statement of recognised income and expense for the 2019 financial year

€m	2019	Prev. year
Consolidated result	**2,707**	**2,275**
Currency translation		
Gains (losses) recognised in equity	422	345
Recognised in the consolidated income statement	0	0
Unrealised gains and losses on investments		
Gains (losses) recognised in equity	4,514	–1,602
Recognised in the consolidated income statement	–853	–527
Change resulting from equity method measurement		
Gains (losses) recognised in equity	–15	47
Recognised in the consolidated income statement	0	0
Change resulting from cash flow hedges		
Gains (losses) recognised in equity	1	0
Recognised in the consolidated income statement	0	0
Other changes	4	–1
I. Items where income and expenses recognised directly in equity are reallocated into the consolidated income statement	4,073	–1,738
Remeasurements of defined benefit plans	–411	78
Other changes	0	0
II. Items where income and expenses recognised directly in equity are not reallocated to the consolidated income statement	–411	78
Income and expense recognised directly in equity (I + II)	**3,661**	**–1,659**
Total recognised income and expense	**6,369**	**616**
Thereof:		
Attributable to Munich Reinsurance Company equity holders	6,382	658
Attributable to non-controlling interests	–14	–42

Group statement of changes in equity for the 2019 financial year

€m	Issued capital	Capital reserve
Balance at 31.12.2017	**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	–21	0
Retirement of own shares	21	0
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**

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			
15,703	**–668**	**4,811**	**365**	**7**	**375**	**186**	**28,198**
–911	0	0	0	0	911	0	0
0	0	0	0	0	2,310	–34	2,275
91	0	–2,095	344	9	0	–8	–1,659
0	0	0	344	0	0	1	345
0	0	–2,120	0	0	0	–9	–2,129
13	0	25	0	9	0	0	47
0	0	0	0	0	0	0	0
78	0	0	0	0	0	0	78
–1	0	0	0	0	0	0	–1
91	0	–2,095	344	9	2,310	–42	616
0	0	0	0	0	0	0	–1
0	0	0	0	0	0	–12	–12
0	0	0	0	0	–1,286	–1	–1,287
0	–993	0	0	0	0	0	–1,014
–1,000	979	0	0	0	0	0	0
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**

Consolidated cash flow statement for the 2019 financial year[1]

€m	2019	Prev. year
Consolidated result	**2,707**	**2,275**
Net change in technical provisions	11,816	4,449
Change in deferred acquisition costs	–150	118
Change in deposits retained	96	–1,450
Change in other receivables and liabilities	–2,798	–1,854
Gains and losses on the disposal of investments and insurance-related investments	–1,715	–1,672
Change in securities at fair value through profit or loss	–889	–534
Change in other balance sheet items	1,277	–119
Other non-cash income and expenses	–850	1,785
I. Cash flows from operating activities	9,493	2,998
Change from losing control of consolidated subsidiaries	–59	72
Change from obtaining control of consolidated subsidiaries	–1	–889
Change from the acquisition, sale and maturity of investments	–6,564	160
Change from the acquisition, sale and maturity of insurance-related investments	377	465
Other	–673	97
II. Cash flows from investing activities	–6,919	–95
Inflows from increases in capital and from non-controlling interests	0	0
Outflows to ownership interests and non-controlling interests	–957	–1,015
Dividend payments	–1,336	–1,287
Change from other financing activities	–204	963
III. Cash flows from financing activities	–2,496	–1,338
Cash flows for the financial year (I + II + III)[2]	**78**	**1,565**
Effect of exchange-rate changes on cash and cash equivalents	–57	–40
Cash at the beginning of the financial year	4,986	3,625
Cash at the end of the financial year	5,006	5,150
Thereof:		
Cash not attributable to disposal group[3]	4,994	4,986
Cash attributable to disposal group	12	164
Restricted cash	11	12
Additional information		
Income tax paid (net) – included in the cash inflows from operating activities	–392	–638
Dividends received	792	700
Interest received	5,359	5,225
Interest paid	–406	–315

1 Previous year's figures adjusted due to the alignment of the breakdown within cash inflows with the balance sheet presentation.
2 Cash mainly comprises cash at banks.
3 For a definition of the disposal group, see Assets – J 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).

In accordance with the provisions of IFRS 4, Insurance contracts, underwriting items are recognised and measured on the basis of US GAAP (United States Generally Accepted Accounting Principles) at first-time adoption of IFRS 4 on 1 January 2005.

Declaration of Conformity with the German Corporate Governance Code in accordance with Section 161 of the German Stock Corporation Act (AktG)

In November 2019, 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, we have to use our judgement in applying accounting policies and to make estimates and assumptions that affect the year-end 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 for measuring technical provisions is of substantial significance, given that measurement is invariably based on models and the development of future cash flows from insurance contracts cannot be conclusively predicted. But judgements and estimates play a significant role in the case of other items as well.

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 in particular and are described in more detail in the respective explanatory Notes:

- Consolidated group
- Goodwill and other intangible assets
- Fair values and impairments of 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 2018 financial year have been adjusted retroactively (see section "Changes in accounting policies and other adjustments"). The other previous-year figures have been calculated on the same basis as the figures for the 2019 financial year. An exception to this is the fine-tuning of the method used for managing investments; please refer to the section "Segment reporting".

Changes in accounting policies and other adjustments

Application of the recognition, measurement and disclosure methods follows the principle of consistency.

In the 2019 financial year, the following amended IFRSs had to be applied for the first time, after having been adopted into European law.

- IFRS 16 (01/2016), Leases
- Amendments to IAS 28 (rev. 10/2017), Long-term Interests in Associates and Joint Ventures
- Annual Improvements to IFRS Standards 2015–2017 Cycle (12/2017): Amendments to IAS 12, Income taxes; IAS 23, Borrowing costs; IFRS 3, Business combinations; and IFRS 11, Accounting for Acquisitions of Interests in Joint Operations
- Amendments to IAS 19 (rev. 2/2018), Plan Amendment, Curtailment or Settlement
- IFRIC 23 (6/2017), Uncertainty over Income Tax Treatments

The amendments will have little effect or no material effect on Munich Re, except for the Amendments to IFRS 16 described below.

Munich Re applies **IFRS 16, Leases** using the modified retrospective approach. We consequently did not, in the 2019 financial year, adjust the comparative information for the 2018 financial year. The first-time application affects leasing agreements hitherto classified as operating leases. Short-term leases with terms shorter than 12 months (and with no option to buy), and lease agreements in which the asset underlying the agreement is of low value, are not recognised in the financial statements. Furthermore, Munich Re is exercising its option to report lease and non-lease components uniformly according to IFRS 16.

Munich Re does not apply IFRS 16 to agreements not recognised as leases under IAS 17, Leases, and IFRIC 4, Determining Whether an Arrangement Contains a Lease.

The leasing liabilities are measured at the present value of the remaining lease payments and discounted at Munich Re's incremental borrowing rate as at 1 January 2019. The weighted average incremental borrowing rate applied to the lease obligations as at 1 January 2019 was 2%.

Upon first-time application of IFRS 16, we measure the right of use for the asset at the amount of the lease liability.

In applying IFRS 16 for the first time, Munich Re has made use of the transitional provisions and recognised leases with a remaining term of less than 12 months as at 1 January 2019 as short-term leases.

The reconciliation of off-balance-sheet lease obligations as at 31 December 2018 to the lease obligations recognised in the balance sheet as at 1 January 2019 is as follows:

Reconciliation

€m	
Future minimum lease payments under operating leases at 31.12.2018	438
Discounting	–49
Practical expedients for short-term leases, low-value assets and service components	–5
New leases commencing after 1.1.2019	–16
Changes in renewal/termination options	18
Changes in consolidated group	–38
Other	–7
Lease liabilities 1.1.2019	**341**

Since the 2018 financial year and until Munich Re applies **IFRS 9 Financial Instruments,** an amendment to **IFRS 4 Insurance Contracts** currently in force requires us to provide information in such a way that makes it possible to compare our presentation of investments and other financial instruments with those of companies that already apply IFRS 9.

Due to the close interlinking of underwriting liabilities and investments of insurance companies, it is essential to have an aligned measurement of these line items in the balance sheet in order to prevent balance sheet distortions. The IASB therefore published an amendment standard to IFRS 4, Insurance Contracts, in September 2016. As a reinsurance group, this gives the possibility of postponing the first-time application of IFRS 9 until 2021.

On the current further discussions of IFRS 9 in conjunction with IFRS 17, Insurance Contracts, see "Standards or changes in standards not yet entered into force".

This required evidence 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 investments under IFRS 9 is partly geared to their contractual cash flows. If these only comprise the payment of principal and interest on the amount outstanding, measurement is based either on amortised cost or – without impact on profit or loss – on the fair value, depending on the business model. This does not apply in particular to equities and derivatives, or to complex structured products. These are measured at fair value through profit or loss. The measurement of our investments under IFRS 9 will thus differ from our current measurement. The objective of the following table is therefore to achieve comparability in terms of the measurement of our investments with those undertakings that already apply IFRS 9.

Disclosures relating to fair value

	Cash flow requirement met[1]			Cash flow requirement not met[2]		
€m	31.12.2019	Prev. Year	Change	31.12.2019	Prev. Year	Change
Loans						
Mortgage loans	7,883	7,037	846	0	0	0
Other loans	48,060	48,815	–756	8,491	8,206	285
Other securities available for sale						
Fixed-interest securities						
Government bonds						
Germany	6,609	6,513	96	11	11	0
Rest of EU	29,922	28,471	1,451	91	92	–2
USA	17,524	14,975	2,549	0	0	0
Other	21,326	17,780	3,546	40	55	–15
Corporate debt securities	**46,898**	**43,345**	**3,553**	**1,092**	**1,520**	**–428**
Other	**8,213**	**10,975**	**–2,762**	**394**	**358**	**36**
Non-fixed-interest securities						
Equities	**0**	**0**	**0**	**13,286**	**10,180**	**3,106**
Investment funds						
Equity funds	0	0	0	453	530	–77
Bond funds	0	0	0	1,818	1,463	355
Real estate funds	0	0	0	328	321	7
Other	**0**	**0**	**0**	**3,552**	**2,683**	**869**
Other securities at fair value through profit or loss						
Held for trading	**16**	**15**	**0**	**2,220**	**2,191**	**29**
Securities designated as at fair value through profit and loss	**42**	**50**	**–8**	**504**	**360**	**144**
Other investments						
Deposits with banks	**3,775**	**3,219**	**556**	**0**	**0**	**0**
Insurance-related investments						
Investments for unit-linked life insurance contracts	**0**	**0**	**0**	**7,726**	**7,533**	**192**
Other insurance-related investments	**201**	**7**	**193**	**1,237**	**833**	**405**

1 Excluding investments measured at fair value through profit or loss in accordance with IFRS 9, irrespective of whether they meet the cash-flow requirements.
2 Including investments measured at fair value through profit or loss in accordance with IFRS 9, irrespective of whether they meet the cash-flow requirements.

The following table provides for an assessment of the quality of our investments, whose contractual cash flows only comprise the payment of principal and interest on the amount outstanding and will therefore not be measured at fair value through profit or loss once we apply IFRS 9. The amounts shown are the carrying amounts of these investments pursuant to IAS 39.

Ratings for investments that meet the cash flow requirement

€m	31.12.2019	Prev. year
AAA	65,957	64,792
AA	53,106	51,811
A	24,722	23,149
BBB	23,622	21,231
Lower	5,765	5,572
No rating	1,121	1,070
Total	**174,293**	**167,625**

From a Group perspective, investments not low in credit risk – i.e. rated BB or lower, and measured at amortised cost under IAS 39 – made up a negligible share of overall investments.

Investments held by subsidiaries already required to use IFRS 9 under local regulations also accounted for a negligible share of overall investments from a Group perspective.

In terms of numbers and size, associates and joint ventures already required to use IFRS 9 under local regulations and accounted for in Munich Re's consolidated financial statements using the equity method were immaterial. Therefore, these entities have not been remeasured, and no detailed information has been disclosed.

Effective from the first quarter of 2019, we have adjusted the breakdown of the consolidated income statement and the segment income statement, including the figures for previous years pursuant to IAS 1.41. Because the currency result is of particular significance on account of our international business operations, we have stated it separately since the first quarter of 2019. In addition, we no longer disclose impairment losses on goodwill separately; we instead allocate them to "Other non-operating result".

Non-current interest liabilities in connection with subordinated bonds were hitherto shown under Other liabilities, but are now allocated to Subordinated liabilities as a result of a change in presentation in accordance with IAS 1.41. The respective items of the previous year were not adjusted because the change in presentation is of minor importance.

Interest on deposits from ceded reinsurance will no longer be considered in the calculation of income from technical interest for the ERGO Life Germany segment. The respective items have been adjusted accordingly. The change has been implemented retroactively in line with IAS 8.41.

The adjustments affect the consolidated income statement for the year 2018 as follows:

Consolidated income statement

		2018 as originally recognised	Change due to adjustments in 2018	2018
€m				
2.	Income from technical interest	4,747	–80	4,667
5.	Technical result	2,779	–80	2,699
10.	Deduction of income from technical interest	–4,747	80	–4,667
11.	Non-technical result	946	80	1,027

Standards or changes in standards not yet entered into force

Unless otherwise stated, all standards or amendments to standards that have not yet entered into force will be applied by Munich Re for the first time as from the mandatory effective date for entities with their registered office in the European Union. The relevant dates for mandatory first-time application are shown in the following list of new standards.

IFRS 9 (7/2014), Financial Instruments, replaces IAS 39 as regards the requirements relating to recognition and measurement of financial instruments. Under this revision, in future financial assets will be categorised on the basis of contractual cash flow characteristics and the business model to which the asset is allocated. Accordingly, subsequent measurement is made at amortised cost, at fair value without impact on 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 without impact on profit or loss.

IFRS 9 envisages an expected loss model for recognising impairments, by which – unlike under the current incurred loss model of IAS 39 – expected losses are anticipated before they arise and must be accounted for as an expense. There is to be only one model for recognising impairments that is to be used for all financial assets falling under the impairment rules of IFRS 9.

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.

The provisions of IFRS 9 are associated with extensive additional disclosures required in the appendices that were adopted in IFRS 7, Financial Instruments: Disclosures. The provisions are mandatory for financial years beginning on or after 1 January 2018. As an insurance company, we are making use of the option to postpone the first-time application of IFRS 9 until 1 January 2021 at the earliest, see section "Changes in accounting policies and other adjustments".

We established a Group-wide project to ensure that the necessary implementation processes are taken in a timely manner.

In October 2017, the IASB issued an amendment to IFRS 9 (rev. 10/2017), Prepayment Features with Negative Compensation. This amendment clarifies how certain financial instruments with prepayment features are to be classified and therefore measured under IFRS 9. This amendment is to be applied from 2019 onwards and will be taken into consideration by Munich Re as part of its overall IFRS 9 project.

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 manner; in addition, the rules require extensive new disclosures in the Notes to the consolidated 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 written with a discretionary participation in surplus. The valuation rules are mainly based on a "building block approach", which is made up of a fulfilment value (discounted expected future cash flows and an explicit risk margin) 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 primary insurance contracts with a participation in surplus 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. This should largely take account of all cash flows resulting from insurance contracts, 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.

IFRS 17 will involve fundamental changes to the accounting for insurance and reinsurance contracts and related processes. As the required changes will involve a considerable amount of work, we started to analyse them in great detail at an early stage. An implementation project was set up shortly after the publication of the new requirements in which all important areas of our reinsurance and primary insurance group are being involved. Through profound and interdisciplinary cooperation across all units, we continuously ensure that all special aspects of our individual insurance lines of business are considered and implemented in our central IT solution.

Application of IFRS 17 in the version of May 2017 would be mandatory for financial years beginning on or after 1 January 2021. Due to the high complexity of the rules and the substantial work required for their implementation, discussions are currently under way about deferring this effective date. In May 2019, the IASB published a draft for an amendment to IFRS 17, which could be commented on with a shortened deadline until September 2019. This draft proposes to postpone the mandatory initial application of the standard by one year to 1 January 2022. At the same time, insurance companies qualifying for deferral of IFRS 9 would be allowed an additional year of deferral to 2022 for the first-time application of IFRS 9. In addition, the draft already contains proposals for initial substantive amendments to IFRS 17. Discussions on these amendments are currently still ongoing.

Various preparers are calling for mandatory first-time application of these two standards to be postponed even further than the IASB draft envisages. The final publication of the amendment standard is not expected before mid-2020.

IFRS 9 was adopted into European law in November 2016. The endorsement of IFRS 17 is still outstanding.

The IASB also published amendments to the following standards, which have been adopted into European law – with the exception of the amendment to IFRS 3 and IAS 1:

- Amendments to the references to the framework in other IFRSs (03/2018)
- Amendments to IFRS 3 (rev. 10/2018), Definition of Business
- Amendments to IAS 1 and IAS 8 (rev. 10/2018), Definition of Material
- Amendments to IFRS 9, IAS 39 and IFRS 7 with regard to the effects of the IBOR reform (Phase 1) (09/2019)
- Amendments to IAS 1 (rev. 01/2020), Classification of Liabilities AS Current or Non-Current

The amendments will become mandatory in 2020/2022, but 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 2019 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 following tables:

Cash flows arising from obtaining control

€m	2019	Prev. year
Total consideration for obtaining control	-5	-905
Non-cash consideration for obtaining control	0	0
Cash consideration for obtaining control	**-5**	**-905**
Cash over which control was obtained	4	16
Total	**-1**	**-889**

Net assets acquired

€m	31.12.2019	Prev. year
Goodwill/gain from bargain purchase	1	244
Other intangible assets	0	87
Investments	1	603
Cash	4	16
Other assets	0	44
Technical provisions (net)	-1	0
Other liabilities	0	-86
Total	**5**	**909**

Cash flows arising from losing control

€m	2019	Prev. year
Total consideration for losing control	99	149
Non-cash consideration for losing control	0	0
Cash consideration for losing control	**99**	**149**
Cash over which control was lost	-157	-77
Total	**-59**	**72**

Net assets disposed of

€m	31.12.2019	Prev. year
Goodwill	0	0
Other intangible assets	-5	-5
Investments	-415	-130
Cash	-157	-77
Other assets	-208	-269
Technical provisions (net)	557	145
Other liabilities	81	228
Total	**-147**	**-109**

Business combinations occurring during the reporting period

On 31 July 2019, Munich Re acquired 100% of the voting shares in Arsenal Insurance Corporation (Arsenal), Carmel, Indiana, USA via its subsidiary Munich Re Digital Partners US Holding Corporation, Wilmington, Delaware, USA. Following the transaction, Arsenal was renamed American Digital Title Insurance Company, Denver, Colorado, USA, and its registered office relocated. This enterprise is licensed as a title insurer in the states of Indiana and Colorado. The acquisition offers Munich Re the opportunity to conduct title insurance business in the USA.

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.

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 designed so that voting or similar 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.

Investment funds As part of its investment activities Munich Re invests in investment funds on its own behalf, and on behalf of policyholders under unit-linked life insurance. 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. We also report under investment funds all investments in infrastructure, forestry, private equity and other investments.

Securitisation vehicles Munich Re invests in debt 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.

Size of structured entities For investment funds, including investments in infrastructure, forestry, private equity and other investments, and investment funds for policyholders under unit-linked life insurance, the carrying amount gives an indication of the size of the structured entity. For debt 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.

Maximum exposure to loss With the exception of investment funds for investments for unit-linked life insurance, 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 for investments for unit-linked life insurance is also the carrying amount of the interests. However, the investment is held for the benefit of policyholders who bear the investment risk.

Managed fund assets MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH also manages investment funds 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 €43m (42m) 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 2019, the managed fund assets amounted to €4,622m (3,815m), and Munich Re itself also holds a small interest in these funds.

Sponsored 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 2019, Munich Re did not have any interests in these structured entities.

Unconsolidated structured entities

	Investment funds – Munich Re investments	Investment funds – Investments for unit-linked life insurance	Securiti-sation vehicles – Debt securities	Securiti-sation vehicles – Underwriting risks	Total
€m	31.12.2019	31.12.2019	31.12.2019	31.12.2019	31.12.2019
Loans	201	0	0	0	201
Other securities					
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
Investments for unit-linked life insurance contracts	0	7,145	0	0	7,145
Ceded share of technical provisions	0	0	0	98	98
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

Unconsolidated structured entities

	Investment funds – Munich Re investments	Investment funds – Investments for unit-linked life insurance	Securiti-sation vehicles – Debt securities	Securiti-sation vehicles – Underwriting risks	Total
€m	Prev. year	Prev. year	Prev. year	Prev. year	Prev. year
Loans	7	0	0	0	7
Other securities					0
Available for sale	4,391	0	2,776	661	7,828
At fair value through profit or loss	0	0	0	0	0
Deposits retained on assumed reinsurance	0	0	0	390	390
Investments for unit-linked life insurance contracts	0	8,141	0	0	8,141
Ceded share of technical provisions	0	0	0	61	61
Assets held for sale	118	149	4	0	271
Total assets	**4,517**	**8,290**	**2,780**	**1,112**	**16,699**
Technical provisions	0	0	0	0	0
Other liabilities	0	0	0	5	5
Total equity and liabilities	**0**	**0**	**0**	**5**	**5**
Size of structured entity	4,517	8,290	75,517	9,257	94,581

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”. Impairments or impairment losses reversed are recognised if required.

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 57 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. Write-downs for impairments are made in cases where the repayment of a loan can no longer be expected.

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. Securities designated as at fair value through profit or loss comprise structured securities and securities designated as at fair value in order to avoid accounting mismatches. 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.

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 reflects which of the fair values derive from transactions in the market and where valuation is based on models because market transactions are lacking. If market prices are available, these are an objective yardstick for recognition at fair value. If valuation is based on models, there is a certain amount of scope for applying such methods. The greater the number of inputs used that are not observable on the market but are based on internal estimates, the greater the amount of discretionary scope available to Munich Re.

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 unadjusted quoted prices in active markets for identical financial assets which Munich Re can refer to at the balance sheet date. If a quoted price in an active market is available, this should always be used. 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. Moreover, we have allocated to this level such assets for which prices are provided by price quoters but for which there is no proof that these were based on actual market transactions. 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, derivatives not traded on the stock market, and physical gas.

For assets allocated to Level 3, we use valuation techniques that are also based on unobservable inputs. This is only permissible insofar as no observable market data is available. The inputs used reflect Munich Re’s assumptions regarding the factors which market players would consider in their pricing. We use the best available information for this, including 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 affiliated companies, associates and joint ventures measured at fair value, and insurance derivatives.

In the case of loans, bank borrowing, liabilities from financial transactions, and bond and note liabilities not traded on an active market, we have decided on a case-by-case basis to which level of the fair value hierarchy to allocate the respective fair values.

Owing to their leverage effect, changes in individual inputs may significantly affect the fair value shown for instruments measured under Level 3. If we make such adjustments in measuring fair value in the individual case, we explain the resultant effects.

Net investment result

The net investment result comprises regular income, income from write-ups, gains and losses on the disposal of investments, other income, write-downs of 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. They include insurance-linked derivatives, derivatives to hedge variable annuities, weather and commodity derivatives, and physical gas. Insurance-linked derivatives include derivatives embedded in variable annuities, 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. Insurance-linked derivatives also include retrocessions in the form of derivatives to hedge insurance risks assumed. 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. Other insurance-related investments are accounted for at fair value, and we recognise changes in value in profit or loss. For physical gas, the fair value is reduced by estimated costs to sell.

Net insurance-related investment result

The composition of the net result from insurance-related investments corresponds to that of the net 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 original 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 cheques 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 accordance with IFRS 4, we do not use shadow accounting for deferred acquisition costs in life primary insurance. In life business and long-term health primary insurance, deferred acquisition costs are recognised and amortised over the duration of the contracts. 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 normally 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 sufficiently 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 average useful life is 56 years. Where required, impairment losses are recognised or reversed 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. Several lease contracts, especially property leases, include renewal and termination options. In determining the lease term, the exercise or non-exercise of such options is only taken into account if it is reasonably certain.

J Assets held for sale

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 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, and income and expenses resulting from changes in the consolidated group. 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 effects from the remeasurement of defined benefit plans.

Own shares are deducted from equity. The purchase, sale or retirement of these shares is 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. These reserves also 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.

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). 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 biometric 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.

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 Aktuar-vereinigung e.V.) are used. We mostly 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 insurance 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 balance sheet date. These provisions are posted on the basis of national regulations only for German primary insurance business; a retrospective approach is usually taken based on supervisory or individual contractual rules.

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 Notes to the consolidated balance sheet – Assets (2) Other intangible assets, Assets (13) Deferred acquisition costs, and Equity and liabilities (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 balance sheet date, 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 bonds (e.g. corporate or government 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.

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 and includes the following lease payments: Fixed payments less any leasing incentives to be provided by the lessor; variable payments linked to an index or interest rate; expected residual value payments from residual value guarantees; the exercise price of a call option if its exercise was deemed to be reasonably certain; and penalties for termination of the lease, if its term takes use of a termination option into account. Lease payments are discounted at the interest rate on which the lease is based, if this can be determined. Otherwise, discounting is carried out using the incremental borrowing rate.

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 assets held for sale

Liabilities to be transferred together with disposal groups are recognised in this item; see Assets – J 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 €	31.12.2019	Prev. year	Q4 2019	Q3 2019	Q2 2019	Q1 2019	Q4 2018	Q3 2018	Q2 2018	Q1 2018
Australian dollar	0.6262	0.6158	0.6174	0.6167	0.6230	0.6273	0.6284	0.6289	0.6349	0.6396
Canadian dollar	0.6870	0.6405	0.6843	0.6810	0.6652	0.6621	0.6633	0.6576	0.6499	0.6434
Pound sterling	1.1801	1.1141	1.1623	1.1086	1.1440	1.1464	1.1272	1.1206	1.1416	1.1323
Polish zloty	0.2352	0.2329	0.2334	0.2315	0.2336	0.2325	0.2327	0.2324	0.2346	0.2393
Swiss franc	0.9200	0.8874	0.9126	0.9122	0.8874	0.8835	0.8801	0.8735	0.8517	0.8580
US dollar	0.8909	0.8748	0.9032	0.8993	0.8899	0.8806	0.8763	0.8596	0.8389	0.8139
Yen	0.0082	0.0080	0.0083	0.0084	0.0081	0.0080	0.0078	0.0077	0.0077	0.0075
Yuan renminbi	0.1279	0.1274	0.1282	0.1282	0.1304	0.1305	0.1267	0.1264	0.1316	0.1280

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)

As of 1 January 2019, ERGO's German direct business operations were renamed Digital Ventures.

For the sake of transparency, the currency result is shown separately in the segment income statement as of the beginning of the first quarter of 2019, see also "Changes in accounting policies and other adjustments".

At the beginning of the first quarter 2019, the method used in managing investments in reinsurance – and consequently the allocation to the life and health and property-casualty segments of the reinsurance group – was refined in order to take more detailed account of material facts and circumstances. The previous year's figures have not been adjusted as the changes were not significant.

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	31.12.2019	Prev. year	31.12.2019	Prev. year
A. Intangible assets	**319**	**330**	**2,316**	**2,304**
B. Investments				
I. Land and buildings, including buildings on third-party land	190	433	2,369	2,150
II. Investments in affiliated companies, associates and joint ventures	48	44	1,827	1,433
Thereof: Associates and joint ventures accounted for using the equity method	27	28	1,761	1,371
III. Loans	471	178	536	701
IV. Other securities				
1. Available for sale	22,661	19,689	50,533	49,116
2. At fair value through profit or loss	83	122	897	634
	22,744	19,812	51,431	49,750
V. Deposits retained on assumed reinsurance	4,791	4,890	3,082	2,286
VI. Other investments	722	688	2,858	2,400
	28,967	**26,044**	**62,103**	**58,718**
C. Insurance-related investments	**1,070**	**745**	**290**	**97**
D. Ceded share of technical provisions	**1,529**	**858**	**2,732**	**2,709**
E. Assets held for sale	**10**	**0**	**157**	**414**
F. Other segment assets	**14,826**	**13,006**	**13,852**	**11,126**
Total segment assets	**46,721**	**40,984**	**81,449**	**75,369**

Segment equity and liabilities[1]

	Reinsurance			
	Life and health		Property-casualty	
€m	31.12.2019	Prev. year	31.12.2019	Prev. year
A. Subordinated liabilities	**956**	**977**	**2,871**	**2,700**
B. Gross technical provisions				
I. Unearned premiums	337	309	7,583	6,985
II. Provision for future policy benefits	12,607	12,107	26	26
III. Provision for outstanding claims	9,563	9,034	50,696	46,919
IV. Other technical provisions	340	301	274	293
	22,848	**21,751**	**58,579**	**54,222**
C. Gross technical provisions for unit-linked life insurance contracts	**0**	**0**	**0**	**0**
D. Other provisions	**233**	**226**	**805**	**604**
E. Liabilities related to assets held for sale	**0**	**0**	**0**	**392**
F. Other segment liabilities	**10,522**	**8,938**	**8,049**	**7,189**
Total segment liabilities	**34,559**	**31,891**	**70,303**	**65,108**

1 You will find this information as a downloadable Excel file in the financial supplement under www.munichre.com/results-reports.

	ERGO						Total	
	Life and health Germany		Property-casualty Germany		International			
	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year
	199	**204**	**1,170**	**1,044**	**175**	**182**	**4,180**	**4,064**
	3,101	2,937	225	221	105	111	5,989	5,851
	378	441	113	75	481	517	2,847	2,509
	322	387	43	9	471	502	2,625	2,296
	49,713	52,089	1,433	1,606	354	271	52,507	54,845
	56,676	50,603	5,334	4,625	16,353	15,240	151,558	139,272
	1,336	1,362	23	53	441	444	2,781	2,616
	58,013	51,965	5,357	4,678	16,794	15,684	154,338	141,888
	43	44	22	21	0	0	7,938	7,241
	1,329	1,012	74	270	161	149	5,144	4,518
	112,577	**108,487**	**7,222**	**6,871**	**17,895**	**16,731**	**228,764**	**216,852**
	5,216	**4,673**	**0**	**0**	**2,587**	**2,909**	**9,163**	**8,424**
	14	**19**	**52**	**74**	**610**	**603**	**4,937**	**4,263**
	0	**269**	**0**	**1**	**234**	**344**	**400**	**1,029**
	7,034	**7,047**	**1,637**	**1,581**	**2,760**	**2,775**	**40,109**	**35,535**
	125,039	**120,701**	**10,082**	**9,572**	**24,262**	**23,542**	**287,553**	**270,168**

	ERGO						Total	
	Life and health Germany		Property-casualty Germany		International			
	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year
	0	**0**	**0**	**0**	**13**	**13**	**3,839**	**3,689**
	282	250	507	484	1,809	1,762	10,518	9,790
	89,698	88,950	409	422	9,562	9,641	112,302	111,147
	2,970	2,886	4,779	4,670	2,868	2,848	70,875	66,356
	19,574	16,139	99	96	724	485	21,011	17,314
	112,525	**108,225**	**5,793**	**5,672**	**14,962**	**14,736**	**214,706**	**204,607**
	5,572	**5,098**	**0**	**0**	**2,600**	**2,827**	**8,172**	**7,925**
	1,992	**1,662**	**1,061**	**918**	**1,200**	**972**	**5,291**	**4,383**
	0	**168**	**0**	**0**	**179**	**263**	**179**	**823**
	4,282	**4,156**	**631**	**741**	**1,306**	**1,218**	**24,790**	**22,241**
	124,370	**119,309**	**7,486**	**7,331**	**20,260**	**20,028**	**256,978**	**243,668**
					Equity		**30,576**	**26,500**
					Total equity and liabilities		**287,553**	**270,168**

Segment income statement[1, 2]

	Reinsurance			
	Life and health		Property-casualty	
€m	2019	Prev. year	2019	Prev. year
Gross premiums written	**11,716**	**10,849**	**22,091**	**20,437**
1. Net earned premiums	10,540	9,868	20,566	18,618
2. Income from technical interest	652	637	1,215	1,144
3. Net expenses for claims and benefits	-8,580	-7,855	-13,714	-12,140
4. Net operating expenses	-2,283	-2,146	-7,066	-6,372
5. Technical result (1–4)	**329**	**503**	**1,000**	**1,250**
6. Investment result	1,080	988	2,152	1,555
7. Insurance-related investment result	30	17	65	3
8. Other operating result	62	58	-238	-130
9. Deduction of income from technical interest	-652	-637	-1,215	-1,144
10. Non-technical result (6–9)	**520**	**427**	**763**	**284**
11. Operating result	849	930	1,764	1,534
12. Other non-operating result	-10	-26	-47	-80
13. Currency result	47	27	149	19
14. Net finance costs	-39	-36	-128	-48
15. Taxes on income	-142	-168	-176	-289
16. Consolidated result	706	729	1,562	1,135

1 Previous year's figures adjusted owing to IAS 1 and IAS 8; see "Changes in accounting policies and other adjustments".
2 You will find this information as a downloadable Excel file in the financial supplement under www.munichre.com/results-reports.

Other segment disclosures

	Reinsurance			
	Life and heath		Property-casualty	
€m	2019	Prev. year	2019	Prev. year
Interest income	899	753	1,137	1,103
Interest expenses	-31	-14	-29	-51
Depreciation and amortisation	-58	-62	-118	-111
Other operating income	259	172	303	314
Other operating expenses	-198	-114	-541	-444
Income from associates and joint ventures accounted for using the equity method	2	1	162	113

						ERGO		Total
	Life and health Germany		Property-casualty Germany		International			
	2019	Prev. year	2019	Prev. year	2019	Prev. year	2019	Prev. year
	9,238	**9,345**	**3,500**	**3,377**	**4,912**	**5,057**	**51,457**	**49,064**
	9,191	9,301	3,362	3,252	4,621	4,696	48,280	45,735
	4,196	2,737	75	76	591	73	6,729	4,667
	–11,701	–9,955	–2,056	–2,075	–3,633	–3,091	–39,685	–35,116
	–1,415	–1,530	–1,077	–1,087	–1,408	–1,451	–13,249	–12,587
	271	**552**	**303**	**166**	**171**	**228**	**2,074**	**2,699**
	3,916	3,502	157	133	430	348	7,737	6,526
	751	–493	0	0	330	–212	1,176	–685
	–61	–34	22	6	–39	–48	–254	–148
	–4,196	–2,737	–75	–76	–591	–73	–6,729	–4,667
	410	**238**	**105**	**62**	**131**	**14**	**1,930**	**1,027**
	681	**790**	**408**	**228**	**302**	**242**	**4,004**	**3,725**
	–305	–275	–212	–171	–92	–87	–665	–639
	–41	–82	–24	–13	–59	10	73	–39
	–23	–43	–5	–20	–27	–49	–222	–196
	–127	–127	–19	21	–19	–12	–483	–576
	187	**264**	**148**	**45**	**105**	**103**	**2,707**	**2,275**

						ERGO		Total
	Life and heath Germany		Property-casualty Germany		International			
	2019	Prev. year	2019	Prev. year	2019	Prev. year	2019	Prev. year
	2,902	2,922	99	92	349	360	5,387	5,230
	–60	–36	–17	–9	–23	–16	–161	–125
	–52	–52	–45	–43	–70	–83	–344	–351
	286	115	129	88	116	138	1,093	827
	–347	–149	–107	–83	–154	–187	–1,347	–976
	28	44	0	2	15	27	207	187

Notes on determining the combined ratio[1]

		Reinsurance		ERGO		
		Property-casualty		Property-casualty Germany		International[2]	
€m		2019	Prev. year	2019	Prev. year	2019	Prev. year
Net earned premiums		20,566	18,618	3,362	3,252	3,309	3,292
Net expenses for claims and benefits		-13,714	-12,140	-2,056	-2,075	-2,129	-2,088
Net operating expenses		-7,066	-6,372	-1,077	-1,087	-1,012	-1,068
Loss-ratio calculation adjustments		9	8	30	41	23	41
Fire brigade tax and other expenses		17	14	20	15	28	31
Expenses for premium refunds[3]		0	0	26	23	2	0
Other underwriting income		-8	-6	-4	-3	-16	-25
Change in other technical provisions and other underwriting expenses[3]		0	0	-11	7	8	35
Adjusted net expenses for claims and benefits		**-13,705**	**-12,132**	**-2,025**	**-2,033**	**-2,107**	**-2,047**
Loss ratio	%	66.6	65.2	60.3	62.5	63.7	62.2
Combined ratio	%	101.0	99.4	92.3	96.0	94.3	94.6

1 Information on the combined ratio is provided in the management report under “Important tools of corporate management”.
2 Property-casualty business and short-term health business (excluding health insurance conducted like life insurance).
3 No adjustment for property-casualty reinsurance.

Non-current assets by country[1]

€m	31.12.2019	Prev. year
Germany	7,322	7,166
USA	3,507	3,364
UK	554	573
France	429	377
Sweden	368	387
Spain	312	302
Poland	242	233
Malta	194	202
Italy	174	186
Austria	142	161
Belgium	131	132
Netherlands	94	115
Switzerland	93	91
Portugal	71	69
Finland	64	65
Canada	56	46
Denmark	54	24
Lithuania	53	54
Others	104	108
Total	**13,963**	**13,655**

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	2019	Prev. year
Life and health reinsurance	53	190
Property-casualty reinsurance	276	1,043
ERGO International Germany	332	241
ERGO property-casualty Germany	193	151
ERGO International	73	62
Total	**926**	**1,688**

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	2019	Prev. year
Europe		
Germany	13,285	13,397
UK	5,193	5,276
Poland	1,593	1,542
Spain	1,473	1,276
Belgium	904	895
Others	5,189	4,923
	27,637	27,309
North America		
USA	12,274	11,260
Canada	2,209	1,956
	14,482	13,216
Asia and Australasia		
Australia	1,697	1,987
China	1,435	985
Japan	1,381	1,366
South Korea	300	284
Others	1,215	877
	6,029	5,499
Africa, Middle East		
South Africa	694	655
United Arab Emirates	379	428
Others	751	680
	1,824	1,763
Latin America	1,486	1,277
Total	**51,457**	**49,064**

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	2019	Prev. year
Gross carrying amount at 31 Dec. previous year	4,460	4,134
Accumulated amortisation and impairment losses at 31 Dec. previous year	-1,556	-1,550
Carrying amount at 31 Dec. previous year	2,904	2,584
Currency translation differences	37	81
Additions	1	245
Disposals	0	0
Reclassifications	0	0
Amortisation and impairment losses	-1	-6
Carrying amount at 31 Dec. financial year	**2,941**	**2,904**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-1,557	-1,556
Gross carrying amount at 31 Dec. financial year	4,498	4,460

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 reinsurance property-casualty	ERGO Property-casualty Germany segment
Allocated goodwill at 31 Dec. 2019 in €m	1,896	929
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 (three years) we expected increasing premium income and a slight 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 (four 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%	9.1%

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 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. 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 impairments have been identified.

2 Other intangible assets

Development of other intangible assets

	Acquired insurance portfolios		Software			
			Internally developed		Other	
€m	2019	Prev. year	2019	Prev. year	2019	Prev. year
Gross carrying amount at 31 Dec. previous year	1,299	1,304	462	413	1,343	1,244
Accumulated amortisation and impairment losses at 31 Dec. previous year	-926	-870	-418	-383	-1,026	-972
Carrying amount at 31 Dec. previous year	373	433	44	30	317	272
Currency translation differences	15	-6	0	-1	2	1
Additions						
Business combinations	0	0	0	25	0	1
Other	0	0	25	23	237	134
Disposals						
Loss of control	0	0	0	0	0	-5
Other	0	0	-5	0	-5	-7
Reclassifications	0	0	-2	0	-4	-5
Impairment losses reversed	0	0	0	0	0	0
Amortisation and impairment losses						
Amortisation	-43	-55	-39	-33	-74	-73
Impairment losses	0	0	0	0	-1	-1
Carrying amount at 31 Dec. financial year	**346**	**373**	**24**	**44**	**471**	**317**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-974	-926	-459	-418	-1,085	-1,026
Gross carrying amount at 31 Dec. financial year	1,319	1,299	483	462	1,556	1,343

Continued on next page

€m	Acquired brand names 2019	Acquired brand names Prev. year	Acquired distribution networks/client bases 2019	Acquired distribution networks/client bases Prev. year	Acquired licences/ patents 2019	Acquired licences/ patents Prev. year
Gross carrying amount at 31 Dec. previous year	223	222	661	679	330	295
Accumulated amortisation and impairment losses at 31 Dec. previous year	-194	-193	-518	-568	-90	-84
Carrying amount at 31 Dec. previous year	29	29	143	111	240	211
Currency translation differences	1	1	2	4	5	0
Additions						4
Business combinations	0	0	0	38	0	24
Other	1	0	0	10	0	11
Disposals						
Loss of control	0	0	0	0	0	0
Other	0	0	-3	0	0	0
Reclassifications	0	0	0	0	0	0
Impairment losses reversed	0	0	0	0	0	7
Amortisation and impairment losses						
Amortisation	-2	-1	-23	-22	-14	-13
Impairment losses	0	0	0	0	0	0
Carrying amount at 31 Dec. financial year	**29**	**29**	**118**	**143**	**232**	**240**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-185	-194	-610	-518	-106	-90
Gross carrying amount at 31 Dec. financial year	214	223	727	661	338	330

€m	Miscellaneous 2019	Miscellaneous Prev. year	Total 2019	Total Prev. year
Gross carrying amount at 31 Dec. previous year	34	85	4,352	4,243
Accumulated amortisation and impairment losses at 31 Dec. previous year	-19	-66	-3,191	-3,137
Carrying amount at 31 Dec. previous year	15	18	1,161	1,105
Currency translation differences	0	0	26	0
Additions				
Business combinations	0	0	0	89
Other	8	1	271	179
Disposals				
Loss of control	0	0	0	-5
Other	0	0	-14	-8
Reclassifications	0	-1	-7	-6
Impairment losses reversed	0	0	0	7
Amortisation and impairment losses				
Amortisation	-2	-3	-196	-200
Impairment losses	0	0	-1	-1
Carrying amount at 31 Dec. financial year	**21**	**15**	**1,240**	**1,161**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-15	-19	-3,434	-3,191
Gross carrying amount at 31 Dec. financial year	36	34	4,674	4,352

Intangible assets pledged as security and other restrictions on title amount to €107m (110m). Contractual commitments to acquire intangible assets amount to €82m (7m).

3 Land and buildings, including buildings on third-party land

Development of investments in land and buildings, including buildings on third-party land

€m	2019	Prev. year
Gross carrying amount at 31 Dec. previous year	7,107	6,423
Accumulated amortisation and impairment losses at 31 Dec. previous year	-1,255	-1,302
Carrying amount at 31 Dec. previous year	5,851	5,121
Currency translation differences	11	15
Additions		
Subsequent acquisition costs	38	26
Business combinations	0	0
Other	307	672
Disposals		
Loss of control	0	0
Other	-22	-34
Impairment losses reversed	22	169
Amortisation and impairment losses		
Amortisation	-130	-121
Impairment losses	-7	-2
Reclassifications	-81	6
Carrying amount at 31 Dec. financial year	**5,989**	**5,851**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-1,313	-1,255
Gross carrying amount at 31 Dec. financial year	7,302	7,107

The fair value of investment property at the balance sheet date amounted to €11,589m (10,620m). 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 3.5% are used for residential buildings and 1.0% to 6.3% for office buildings and commercial property.

The additions include two residential buildings in Hamburg and Stuttgart, and one commercial building in Munich.

The reclassifications mainly include the land and buildings that are classified as held for sale.

Property pledged as security and other restrictions on title amount to €1,133m (1,000m). Contractual commitments to acquire property amount to €799m (78m). This figure also includes the commitment to acquire the 330 Madison Avenue building in New York City.

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	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 Dividend yield	Black-Scholes (European) Cox, Ross and Rubinstein (American)
Equity forwards	Theoretical price	Listing of underlying shares Money-market interest rate Dividend yield	Present-value method
Interest-rate risks			
Interest-rate swaps	Theoretical price	CSA/swap curve	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 curve Currency spot rates Money-market interest-rate curve	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 Swap 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 rates	Present-value method
Other transactions			
Insurance derivatives (excluding variable annuities)	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
Catastrophe swaps	Theoretical price	Fair values of cat bonds Interest-rate curve	Present-value method
Credit default swaps	Theoretical price	Credit spreads Recovery rates Interest-rate curve	Present-value method 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	Black-Scholes (European) Cox, Ross and Rubinstein (American)

Bonds with embedded derivatives	Pricing method	Parameters	Pricing model
Callable bonds	Theoretical price	Money-market/swap interest-rate curve Issuer-specific spreads Volatility matrix	Hull-White model
CMS floaters	Theoretical price	Money-market/swap interest-rate curve Issuer-specific spreads Volatility matrix	Hull-White model
CMS floaters with variable cap	Theoretical price	OIS/swap interest-rate curve Issuer-specific spreads Volatility skew	Replication model (Hagan)
Inverse CMS floaters	Theoretical price	OIS/swap interest-rate curve Issuer-specific spreads Volatility skew	Replication model (Hagan)
CMS steepeners	Theoretical price	OIS/swap interest-rate curve Issuer-specific spreads Volatility skew Correlation matrix	Replication model (Hagan) Stochastic volatility model
Convergence bonds	Theoretical price	Money-market/swap interest-rate curves 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 Money-market interest-rate curve Sector-, rating- or issuer-specific yield curve	Bachelier/ Normal Black, Present-value method
FIS loans against borrower's note	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
Swaption notes	Theoretical price	At-the-money volatility matrix and skew Swap curve Money-market interest-rate curve Sector-, rating- or issuer-specific yield rate 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
Bank borrowing	Theoretical market price	Interest-rate curve	Present-value method

Insurance-linked derivatives (excluding variable annuities) are allocated to Level 3 of the fair value hierarchy. The derivative components of catastrophe bonds are measured based on the values supplied by brokers for the underlying bonds, which is why it is not possible to quantify the inputs used that were not based on observable market data. If no observable inputs are available for customised insurance-linked derivatives, the present-value method on the basis of current interest-rate curves and historical event data is used. Due to the low volume involved, the effects of alternative inputs and assumptions are immaterial.

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 and range between 0.5% and 50%, depending on the specific insurance product and current situation of the capital markets. Compared with the relevant market risk inputs for the determination of fair values, the impact on the fair value of an increase or decrease in lapse rates would be immaterial. The assumptions with regard to mortality are based on published mortality tables, which are adjusted with a view to the target markets and the actuaries' expectations. The impact of these and other non-observable assumptions is not material. 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 2019, around 12% (11%) of the investments measured at fair value were allocated to Level 1 of the fair value hierarchy, 84% (85%) to Level 2 and 4% (5%) 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 €86m (96m) and is allocated to Level 1 of the fair value hierarchy.

In the financial year, we made changes to the allocation of certain credit structures to a specific level of the fair value hierarchy. Thanks to an improved supply of market data, we reallocated these structures from Level 3 to Level 2. There were no other changes to the allocation of the individual levels of the fair value hierarchy. The minor transfer amounts relating to Level 3 of the fair value hierarchy are adjustments to our Group requirements.

The second table below presents the reconciliation from the opening balances to the closing balances for investments allocated to Level 3.

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 for the 2019 financial year 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 for the 2019 financial year 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

				31.12.2019
€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	5,250	3,257	455	8,962
Total	**19,393**	**137,933**	**6,537**	**163,863**
Investments not measured at fair value				
Loans	0	62,161	2,684	64,844
Total	**0**	**62,161**	**2,684**	**64,844**

→				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	177	177
Investments in associates and joint ventures measured at fair value	0	0	36	36
Other securities available for sale				
Fixed-interest	48	120,910	3,137	124,095
Non-fixed-interest	10,451	1,316	3,410	15,177
Other securities at fair value through profit or loss				
Held for trading, and hedging derivatives[1]	545	1,680	1	2,226
Designated as at fair value through profit or loss	167	242	0	410
Other investments	0	10	255	265
Insurance-related investments	4,914	3,270	233	8,417
Total	**16,125**	**127,429**	**7,249**	**150,803**
Investments not measured at fair value				
Loans	0	62,632	1,663	64,295
Total	**0**	**62,632**	**1,663**	**64,295**

1 Including hedging derivatives of €27m (20m) 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	2019	Prev. year	2019	Prev. year
Carrying amount at 31 Dec. previous year	177	171	36	34
Gains and losses	–16	–15	8	0
Gains (losses) recognised in the income statement	–15	–17	4	-3
Gains (losses) recognised in equity	0	3	4	3
Acquisitions	50	34	2	19
Disposals	–13	–14	–9	–19
Transfer to Level 3	4	0	0	2
Transfer out of Level 3	-8	0	-8	0
Changes in the fair value of derivatives	0	0	0	0
Carrying amount at 31 Dec. financial year	**194**	**177**	**29**	**36**
Gains (losses) recognised in the income statement that are attributable to investments shown at the end of the financial year	–14	–21	0	–3

Continued on next page

€m	Other securities available for sale: Fixed-interest 2019	Fixed-interest Prev. year	Non-fixed-interest 2019	Non-fixed-interest Prev. year
Carrying amount at 31 Dec. previous year	3,137	2,675	3,410	2,860
Gains and losses	225	–50	–18	118
Gains (losses) recognised in the income statement	83	–15	–29	24
Gains (losses) recognised in equity	142	–35	11	93
Acquisitions	1,192	1,457	1,200	811
Disposals	–510	–944	–470	–383
Transfer to Level 3	0	0	0	3
Transfer out of Level 3	–2,602	0	–8	0
Changes in the fair value of derivatives	0	0	0	0
Carrying amount at 31 Dec. financial year	**1,443**	**3,137**	**4,114**	**3,410**
Gains (losses) recognised in the income statement that are attributable to investments shown at the end of the financial year	84	–14	–31	–15

€m	Designated as at fair value through profit or loss 2019	Designated as at fair value through profit or loss Prev. year	Held for trading, and hedging derivatives 2019	Held for trading, and hedging derivatives Prev. year	Other investments 2019	Other investments Prev. year
Carrying amount at 31 Dec. previous year	0	0	1	2	255	36
Gains and losses	0	0	0	0	53	–15
Gains (losses) recognised in the income statement	0	0	0	0	49	–15
Gains (losses) recognised in equity	0	0	0	0	4	0
Acquisitions	0	3	0	0	23	234
Disposals	–1	0	–1	–1	–29	0
Transfer to Level 3	0	0	0	0	0	0
Transfer out of Level 3	0	–2	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**	**0**	**1**	**302**	**255**
Gains (losses) recognised in the income statement that are attributable to investments shown at the end of the financial year	0	0	0	0	49	–15

€m	Insurance-related investments 2019	Insurance-related investments Prev. year	Total 2019	Total Prev. year
Carrying amount at 31 Dec. previous year	233	304	7,249	6,082
Gains and losses	83	43	336	81
Gains (losses) recognised in the income statement	77	33	169	7
Gains (losses) recognised in equity	6	10	167	74
Acquisitions	198	14	2,666	2,571
Disposals	–65	–129	–1,097	–1,488
Transfer to Level 3	0	2	4	7
Transfer out of Level 3	0	0	–2,626	–2
Changes in the fair value of derivatives	6	–1	6	–1
Carrying amount at 31 Dec. financial year	**455**	**233**	**6,537**	**7,249**
Gains (losses) recognised in the income statement that are attributable to investments shown at the end of the financial year	75	–50	162	–118

5 Investments in affiliated companies, associates and joint ventures

Reversed impairment losses with respect to associates and joint ventures amounted to €46m (36m). They are distributed between the following segments: €45m (35m) is apportionable to property-casualty reinsurance, €1m (0m) to life and health reinsurance, and €0m (1m) to ERGO International.

Impairments with respect to these companies amounted to €1m (62m), and are almost entirely attributable to property-casualty reinsurance.

In the financial year, shares of losses of associates and joint ventures amounting to €0m (1m) were not recognised in the balance sheet. Overall, losses not recognised in the balance sheet totalled €4m (4m).

Further information about affiliated companies, associates and joint ventures can be found in Other information (48) Contingent liabilities, other financial commitments, (49) Significant restrictions, and in the List of shareholdings as at 31 December 2019 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	31.12.2019	Prev. year
Overall result for the year after tax from continued operations	110	165
Result after tax from discontinued operations	0	0
Income and expenses recognised directly in equity	12	-17
Total recognised income and expenses	**122**	**148**

6 Loans

Breakdown of loans

	Carrying amounts	
€m	31.12.2019	Prev. year
Mortgage loans	6,792	6,326
Loans and advance payments on insurance policies	220	239
Other loans	45,495	48,280
Total	**52,507**	**54,845**

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 market inputs into account; see (4) Hierarchy for the fair value measurement of assets. The fair value totalled €64,654m (64,298m) at the reporting date.

Rating of "other loans" on the basis of amortised cost

€m	31.12.2019	Prev. year
AAA	26,834	28,001
AA	13,259	13,947
A	1,902	3,026
BBB or lower	2,743	2,309
No rating	756	997
Total	**45,495**	**48,280**

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 40% 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 €8,518m (8,015m). Of the securities shown, €2,389m (1,910m) had been loaned to third parties. Loaned securities are not derecognised, as the main resultant risks and rewards remain with Munich Re. Of the €14,370m (6,771m) in unrealised gains and losses, €6,223m (2,565m) 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).

Disposal proceeds

€m	2019	Prev. year
Fixed-interest securities	57,377	54,803
Non-fixed-interest securities		
Quoted	11,609	11,547
Unquoted	9,480	7,538
Total	**78,466**	**73,888**

Realised gains and losses

€m	2019	Prev. year
Gains on disposal	2,658	2,027
Fixed-interest securities	1,521	1,053
Non-fixed-interest securities	1,137	974
Losses on disposal	–322	–768
Fixed-interest securities	–221	–533
Non-fixed-interest securities	–100	–234
Total	**2,337**	**1,259**

Rating of fixed-interest securities according to fair values

€m	31.12.2019	Prev. year
AAA	39,637	37,296
AA	41,733	40,181
A	22,597	20,562
BBB	21,879	19,775
Lower	5,693	5,557
No rating	581	726
Total	**132,120**	**124,095**

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	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year
Fixed-interest securities						
Government bonds						
Germany	6,620	6,524	1,081	806	5,539	5,718
Rest of EU	30,013	28,564	3,469	1,727	26,544	26,837
USA	17,524	14,975	910	212	16,614	14,762
Other	21,366	17,835	1,170	454	20,196	17,381
Corporate debt securities	47,990	44,865	2,873	943	45,117	43,921
Other	8,607	11,333	1,236	811	7,371	10,522
	132,120	**124,095**	**10,738**	**4,953**	**121,381**	**119,142**
Non-fixed-interest securities						
Shares	13,287	10,181	2,837	1,246	10,450	8,935
Investment funds						
Equity funds	453	530	51	–13	402	543
Bond funds	1,818	1,463	55	37	1,763	1,425
Real estate funds	328	321	62	50	266	270
Other	3,552	2,683	627	497	2,925	2,186
	19,438	**15,177**	**3,632**	**1,817**	**15,806**	**13,360**
Total	**151,558**	**139,272**	**14,370**	**6,771**	**137,187**	**132,502**

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 €2,236m (2,206m) held for trading as well as securities and loans of €545m (410m) designated as at fair value through profit or loss.

The securities held for trading are made up of fixed-interest securities totalling €16m (15m), non-fixed-interest securities totalling €121m (113m) and derivatives held for trading amounting to €2,099m (2,078m). The securities designated as at fair value through profit or loss comprise €351m (217m) assignable to fixed-interest securities and loans and €194m (193m) to non-fixed interest securities. Some €43m (2m) of the instruments at fair value through profit or loss is due within one year.

For securities designated as at fair value through profit or loss, items pledged as security and other restrictions on title amount to €0m (30m).

Rating of fixed-interest securities according to fair value

€m	31.12.2019	Prev. year
AAA	2	25
AA	49	43
A	49	44
BBB	29	25
Lower	2	1
No rating	235	95
Total	**367**	**232**

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 €7,726m (7,533m) and other insurance-related investments of €1,437m (891m).

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 individual 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 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 2019, 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 €46m (29m) and the cash collateral approximately €563m (530m). The collateral received is subject to a title transfer collateral arrangement, but is not re-sold or pledged.

Disclosure of derivatives by balance sheet item

€m			31.12.2019	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	2,099	2,078
	No	Insurance-related investments	1,437	840
	Yes	Other assets	27	20
Negative	No Yes	Liabilities, other liabilities	–1,726	–1,579
Total			**1,837**	**1,359**

Although the derivatives used by Munich Re essentially serve to hedge against risks, only an amount of €27m (18m) 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 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 balance sheet date, there is an equity item of €17m (16m) from cash flow hedges. The net fair value of the derivatives falling into this category amounted to €27m (18m) at the balance sheet date.

Periods to maturity and amount of the hedged cash flows at the balance sheet date

€m	< 1 year	1–2 years	2–3 years	3–4 years	4–5 years	> 5 years	31.12.2019	Prev. year
Notional amounts of hedged transactions	139	0	0	0	0	90	229	379

9 Deposits retained on assumed reinsurance

Deposits retained on assumed reinsurance serve directly as collateral for technical provisions covering business assumed and may not be used by cedants independently. The credit risk is therefore limited. The amount of and changes in deposits retained on assumed reinsurance derive from the values for the changes in the related technical provisions for the reinsured business. Deposits retained on assumed reinsurance business thus do not have a fixed maturity date, and their release is generally dependent on the run-off of the corresponding provisions.

10 Other investments

Other investments comprise deposits with banks totalling €3,776m (3,219m), investments in renewable energies amounting to €646m (662m), physical gold of €409m (372m), and forestry investments of €313m (265m). Deposits with banks include receivables of €156m (130m) from borrowers under repurchase agreements that have been booked by us as the lender.

Of the amounts held on deposit with banks, €3,770m (3,216m) 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 €12m (13m) for deposits with banks.

Development of investments in renewable energies

€m	2019	Prev. year
Gross carrying amount at 31 Dec. previous year	907	699
Accumulated amortisation and impairment losses at 31 Dec. previous year	-245	-231
Carrying amount at 31 Dec. previous year	662	468
Currency translation differences	5	-4
Additions		
Business combinations	0	213
Other	19	0
Disposals		
Loss of control	0	2
Other	-4	0
Impairment losses reversed	3	21
Depreciation and impairment losses		
Depreciation	-40	-38
Impairment losses	0	0
Reclassification	0	0
Carrying amount at 31 Dec. financial year	**646**	**662**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-285	-245
Gross carrying amount at 31 Dec. financial year	932	907

The investments in renewable energies include items pledged as security, and other restrictions on title, amounting to €157m (173m).

11 Ceded share of technical provisions

Ceded share of technical provisions

€m	31.12.2019	Prev. year
Unearned premiums	443	390
Provision for future policy benefits	1,525	823
Provision for outstanding claims	2,902	3,005
Other technical provisions	67	46
Total	**4,937**	**4,263**

Details of the ceded share of technical provisions are shown in the Notes to the consolidated balance sheet – Equity and liabilities (20) Unearned premiums, (21) Provisions for future policy benefits, (22) Provisions for outstanding claims, (23) Other technical provisions, and in the risk report in the section "Credit risks".

12 Other receivables

Breakdown of other receivables

€m	31.12.2019	Prev. year
Amounts receivable on primary insurance business	3,133	2,586
Accounts receivable on reinsurance business	8,690	6,808
Miscellaneous receivables	9,716	7,845
Total	**21,539**	**17,239**

Of the amounts receivable on primary insurance business, €890m (747m) is apportionable to receivables from insurance agents. The miscellaneous receivables include receivables of €7,273m (5,297m) resulting from contracts with non-significant risk transfer, which do not fall within the scope of IFRS 4.

Assets pledged as security and other restrictions on title amount to €82m (73m).

The miscellaneous receivables contain cash collateral of €679m (656m), mainly for derivative transactions.

Given that the majority of other receivables, i.e. a total of €14,189m (11,878m), have a period to maturity of less than one year, the fair values largely correspond to the carrying amounts.

As at 31 December 2019, 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	31.12.2019	Prev. year
AAA	34	0
AA	61	42
A	23	44
BBB and lower	9	10
No external rating	42	90

Of all our receivables on underwriting business at the balance sheet date, €460m (371m) were outstanding for more than 90 days. The average defaults of the last three years amounted to €1,209m (864m).

13 Deferred acquisition costs

Deferred acquisition costs

€m	31.12.2019	Prev. year
Gross	9,664	9,466
Ceded share	-393	-254
Net	**9,272**	**9,212**

Development of gross deferred acquisition costs

€m	31.12.2019	Prev. year
Status at 31 Dec. previous year	9,466	9,563
Currency translation differences	132	-38
Change in consolidated group/Other	-11	-133
New deferred acquisition costs	4,047	3,147
Changes		
Amortisation	-3,811	-2,949
Impairment losses	-160	-125
Status at 31 Dec. financial year	**9,664**	**9,466**

The amortisation includes accrued interest as well as write-downs.

The impairment losses comprise impairment losses and reversals of impairment losses stemming from changes in the assumptions underlying the calculations which require an adjustment in the measurement. Impairment changes were –€85m (0m) in the life and health reinsurance segment, –€11m (+37m) in the property-casualty reinsurance segment, –€1m (–160m) in the ERGO Life and Health Germany segment and –€63m (–2m) in the ERGO International segment.

The deferred acquisition costs of the disposal group amounting to –€9m (–85m) are recognised under Changes in consolidated group/Other.

14 Deferred tax

The deferred tax assets and liabilities recognised in the consolidated balance sheet concern the following balance sheet items:

Deferred tax

		31.12.2019		Prev. year
€m	Assets	Liabilities	Assets	Liabilities
Assets				
A. Intangible assets	140	138	141	154
B. Investments	2,111	3,459	1,994	2,345
C. Insurance-related investments	1	16	1	5
E. Receivables	37	261	51	136
I. Other assets	387	939	311	496
Total assets	**2,676**	**4,813**	**2,498**	**3,136**
Equity and liabilities				
C. Net technical provisions	3,169	4,761	3,045	4,625
E. Other provisions	1,309	270	908	238
F. Liabilities	462	12	214	21
Total equity and liabilities	**4,940**	**5,043**	**4,167**	**4,884**
Loss carry-forwards and tax credits	**648**	**0**	**532**	**0**
Total before netting	**8,264**	**9,856**	**7,197**	**8,020**
Netting amount	-7,948	-7,948	-6,652	-6,652
Total	**316**	**1,908**	**545**	**1,368**

No deferred taxes were posted for temporary differences of €125m (57m) 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 €214m (196m) 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

			31.12.2019			Prev. year
€m	For which deferred tax assets are recognised	For which deferred tax assets are not recognised	Total	For which deferred tax assets are recognised	For which deferred tax assets are not recognised	Total
Corporation tax loss carry-forwards						
Expiring in up to three years	11	19	30	30	35	65
Expiring in over three years and up to ten years	176	139	315	205	164	369
Expiring in over ten years	186	6	192	295	4	299
Not expiring	871	2,347	3,218	663	2,204	2,867
	1,244	**2,511**	**3,755**	**1,193**	**2,407**	**3,600**
Trade tax loss carry-forwards						
Not expiring	2,226	285	2,511	1,483	301	1,784
	2,226	**285**	**2,511**	**1,483**	**301**	**1,784**
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	11	11	5	8	13
Expiring in over three years and up to ten years	0	102	102	49	66	115
Expiring in over ten years	0	0	0	0	0	0
Not expiring	0	0	0	0	0	0
	0	**113**	**113**	**54**	**74**	**128**

15 Other assets

These mainly comprise property, plant and equipment, with owner-occupied property totalling €2,127m (2,178m), and operating and office equipment amounting to €234m (219m). Advance payments on insurance amounted to €293m (303m), derivatives totalled €27m (20m), and miscellaneous deferred items came to €158m (177m).

Development of property, plant and equipment

€m	Owner-occupied property	Operating and office equipment	Other	Total
	2019	2019	2019	2,019
Gross carrying amount at 31 Dec. previous year	3,348	962	28	4,338
Accumulated amortisation and impairment losses at 31 Dec. previous year	–1,170	–743	–25	–1,938
Carrying amount at 31 Dec. previous year	2,178	219	4	2,400
Currency translation differences	6	2	0	8
Additions				
Business combinations	0	0	0	0
Other	17	105	0	122
Disposals				
Loss of control	0	0	0	0
Other	-18	-9	-3	-31
Impairment losses reversed	6	0	0	6
Depreciation and impairment losses				
Depreciation	-65	-82	0	-147
Impairment losses	–1	0	0	–1
Reclassification	5	0	0	4
Carrying amount at 31 Dec. financial year	**2,127**	**234**	**0**	**2,361**
Accumulated amortisation and impairment losses at 31 Dec. financial year	–1,234	–778	–13	–2,025
Gross carrying amount at 31 Dec. financial year	3,361	1,012	13	4,386

→

€m	Owner-occupied property	Operating and office equipment	Other	Total
	Prev. year	Prev. year	Prev. year	Prev. year
Gross carrying amount at 31 Dec. previous year	3,494	1,000	31	4,525
Accumulated amortisation and impairment losses at 31 Dec. previous year	–1,214	–760	–24	–1,998
Carrying amount at 31 Dec. previous year	2,280	241	7	2,527
Currency translation differences	6	–1	0	5
Additions				
Business combinations	0	2	0	2
Other	13	69	1	83
Disposals				
Loss of control	0	–2	0	–2
Other	–2	–5	–1	–8
Impairment losses reversed	58	0	0	58
Depreciation and impairment losses				
Depreciation	-64	-83	-4	-151
Impairment losses	–1	0	0	–1
Reclassification	–111	–2	0	–113
Carrying amount at 31 Dec. financial year	**2,178**	**219**	**4**	**2,400**
Accumulated amortisation and impairment losses at 31 Dec. financial year	–1,170	–743	–25	–1,938
Gross carrying amount at 31 Dec. financial year	3,348	962	28	4,338

The fair value of the land and buildings amounts to €3,495m (3,222m). 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 the Notes to the consolidated balance sheet – Assets (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 €12m (5m) for property and €14m (14m) for plant and equipment. Commitments to acquire property total €4m (10m) and commitments to acquire plant and equipment €14m (6m).

As at 1 December 2019, rights of use from leases amount to €375m. These mainly comprise rights to use land and buildings of €352m. Additions to rights of use in the 2019 financial year came to €116m. The depreciation expense shown under other comprehensive income in the consolidated income statement came to €82m in 2019.

16 Assets held for sale

As at the balance sheet date, the Cannock Chase Group, a group of seven Dutch companies belonging to DAS Legal Finance B.V., Amsterdam, was classified as held for sale. No value adjustments were required in the process. The sale of the group is expected to occur in the course of 2020.

Moreover, one of the investment properties held by MR Beteiligungen 18. GmbH & Co. Immobilien KG, Grünwald, and six of the investment properties held by Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft, München, were classified as held for sale. No value adjustments were required in the process. The sale of all the properties occurred at the end of February 2020.

As at the balance sheet date, four ERGO insurance companies operating in eastern Europe were classified as held for sale. First-time classification took place in Q4 2018. The sales are expected to close in the first half of 2020.

In addition, the at-equity shareholding in Apollo Munich Health Insurance Co. Ltd., Hyderabad, was classified as an asset held for sale.

The subsidiary ERGO Sigorta A.S., Istanbul was sold and deconsolidated in the third quarter of 2019. Besides this, ERGO Életbiztosító Zrt, Budapest, and the portfolio of the Hungarian branch of ERGO Versicherung Aktiengesellschaft, Vienna, were sold in the same period. Four properties of Victoria Lebensversicherung Aktiengesellschaft, Düsseldorf, and another property held by several ERGO insurance companies were also sold. All of the properties had previously been held for investment purposes by the respective companies.

ERGO Poist'ovňa a.s., Bratislava, and the portfolio of the Irish branch of DAS Legal Expenses Insurance Company Limited, Bristol, were also sold in Q4 2019.

The other reserves of Group equity include an amount of €1.9m for disposal groups mainly attributable to unrealised gains on fixed-interest securities, and €2.7m in unrealised losses 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 assets held for sale are shown in the following table:

Non-current assets and disposal groups held for sale

€m	31.12.2019	Prev. year
Assets		
Land and buildings, including buildings on third-party land	77	102
Other securities available for sale	108	288
Other investments	8	16
Other assets of the disposal group	207	622
Total assets	**400**	**1,029**
Liabilities		
Gross technical provisions	159	749
Other liabilities of the disposal group	20	74
Total liabilities	**179**	**823**

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 2019 is divided into 144,317,861 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	2019	Prev. year
Status at 31 Dec. previous year	145,797,378	151,259,431
Reductions		
Acquisition of shares for retirement (share buy-back programme)	–4,336,780	–5,462,053
Status at 31 Dec. financial year	**141,460,598**	**145,797,378**

On 31 December 2019, a total of 2,857,263 Munich Reinsurance Company shares with a calculated nominal value of around €11.6m were held by Group companies. This represents around 2.0% of the share capital.

In the financial year, Munich Re bought back 4,336,780 shares. This includes the 2018/2019 share buy-back programme completed on 9 April 2019, and the 2019/2020 programme approved by the Board of Management of Munich Reinsurance Company on 19 March 2019, which provides for the acquisition of shares up to a value of €1bn before the 2020 Annual General Meeting.

The acquisition costs of all Munich Re shares in the possession of Group companies at the end of the financial year totalled €660,137.565.26.

A total of €1,335m was distributed to Munich Reinsurance Company's equity holders for the financial year 2018 in the form of a dividend of €9.25 per dividend-bearing share.

Composition of the authorised capital

€m	31.12.2019
Authorised Capital 2015 (until 22 April 2020)	10
Authorised Capital 2017 (until 25 April 2022)	280
Total	**290**

Composition of contingent capital

€m	31.12.2019
Contingent Capital 2015 (until 22 April 2020)	117
Total	**117**

Tax effects in the income and expenses recognised directly in equity

	2019			Prev. year		
€m	Before tax	Tax	After tax	Before tax	Tax	After tax
Currency translation	422	0	422	345	0	345
Unrealised gains and losses on investments	4,686	–1,025	3,661	–2,563	434	–2,129
Change resulting from equity method measurement	–16	0	–15	47	0	47
Change resulting from cash flow hedges	2	–1	1	0	0	0
Remeasurements of defined benefit plans	-592	181	-411	107	-29	78
Other changes	4	0	4	–1	0	–1
Income and expenses recognised directly in equity	**4,506**	**-845**	**3,661**	**–2,064**	**405**	**–1,659**

The taxes of –€845m (405m) recognised directly in equity comprise an amount of –€854m (368m) for deferred tax assets, and current taxes on unrealised gains and losses of €9m (37m) on investments.

Information on capital management is provided in the 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 in the Notes to the consolidated balance sheet – Assets (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

€m	Level 1	Level 2	Level 3	31.12.2019 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	250	302	552
Other liabilities from financial transactions	0	29	16	45
Total	**4,671**	**338**	**320**	**5,329**

→

€m	Level 1	Level 2	Level 3	Prev. year Total
Liabilities measured at fair value				
Other liabilities				
Derivatives	139	788	652	1,579
Total	**139**	**788**	**652**	**1,579**
Liabilities not measured at fair value				
Subordinated liabilities	4,002	55	2	4,059
Bonds and notes issued	354	0	0	354
Amounts due to banks	0	101	463	564
Other liabilities from financial transactions	0	388	32	419
Total	**4,356**	**544**	**497**	**5,397**

Only derivatives with a negative fair value are currently recognised at fair value. Of these, we allocate the insurance derivatives to Level 3 of the fair value hierarchy.

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	31.12.2019	Prev. year
Carrying amount at 31 Dec. previous year	652	471
Gains and losses	144	-59
Gains (losses) recognised in the income statement	164	-41
Gains (losses) recognised in equity	-20	-18
Acquisitions	284	239
Disposals	-66	-116
Transfer to Level 3	0	0
Transfer out of Level 3	0	0
Change in the fair value of derivatives	6	-1
Carrying amount at 31 Dec. financial year	**731**	**652**
Gains (losses) recognised in the income statement that are attributable to liabilities shown at the end of the financial year	164	-23

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 for the 2019 financial year 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 shown at the end of the financial year are shown in the statement of recognised income and expense for the 2019 financial year under “Unrealised gains and losses on investments, recognised in the consolidated income statement”.

19 Subordinated liabilities

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 €171m (176m). 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.

The fair value of the subordinated liabilities at the balance sheet date amounted to €4,348m (4,059m). 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	31.12.2019	Prev. year
Munich Reinsurance Company, Munich, 3.25% until 2029, thereafter floating, €1,250m, Bonds 2018/2049	–	A	A2 (hyb)	–	1,261	1,236
Munich Reinsurance Company, Munich, 6.25% until 2022, thereafter floating, €900m, Bonds 2012/2042	a+	A	–	A	932	897
Munich Reinsurance Company, Munich, 6.625% until 2022, thereafter floating, £450m, Bonds 2012/2042	a+	A	–	A	552	501
Munich Reinsurance Company, Munich, 6.00% until 2021, thereafter floating, €1,000m, Bonds 2011/2041	a+	A	–	A	1,034	997
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$ 76m, Bonds 1997/2027	–	–	–	–	48	46
Total					**3,839**	**3,689**

20 Unearned premiums

Unearned premiums

€m	31.12.2019	Prev. year
Gross	10,518	9,790
Ceded share	–443	–390
Net	**10,075**	**9,400**

Development of gross unearned premiums

€m	31.12.2019	Prev. year
Status at 31 Dec. previous year	9,790	8,857
Currency translation effects	195	96
Changes in consolidated group/Other	–51	–208
Gross premiums written	51,457	49,064
Earned premiums	–50,873	–48,019
Status at 31 Dec. financial year	**10,518**	**9,790**

The item "Changes in consolidated group/Other" includes unearned premiums of the disposal group totalling €0m (–124m).

21 Provision for future policy benefits

Provision for future policy benefits

€m	31.12.2019	Prev. year
Gross	112,302	111,147
Ceded share	–1,525	–823
Net	**110,777**	**110,324**

Gross provision for future policy benefits according to type of insurance cover

€m	31.12.2019	Prev. year
Life and health	**111,650**	**110,469**
Reinsurance	12,607	12,107
ERGO	99,042	98,362
Term life insurance	3,153	3,000
Other life insurance	22,810	24,403
Annuity insurance	34,826	34,082
Disability insurance	1,300	1,417
Contracts with combination of more than one risk	0	0
Health	36,954	35,460
Property-casualty	**652**	**678**
Reinsurance	26	26
ERGO	627	652
Total	**112,302**	**111,147**

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 segment, there was an adjustment in 2019 to the assumptions regarding future lapses, expenses, 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.

Further information on the underwriting risks can be found in the risk report in the section "Significant risks".

Development of gross provision for future policy benefits

€m	2019	Prev. year
Status at 31 Dec. previous year	111,147	108,956
Currency translation differences	341	92
Changes in consolidated group/Other	2,825	745
Changes		
Scheduled	–2,008	1,479
Unscheduled	–3	–125
Status at 31 Dec. financial year	**112,302**	**111,147**

The change shown under "Changes in consolidated group/Other" contains €280m (360m) in savings premiums for capitalisation products and €644m (548m) for reclassifications from the provision for premium refunds. It also includes the provision for outstanding claims of the disposal group amounting to –€17m (–130m).

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 reporting period.

22 Provision for outstanding claims

Provision for outstanding claims

€m	31.12.2019	Prev. year
Gross	70,875	66,356
Ceded share	–2,902	–3,005
Net	**67,973**	**63,352**

Gross provision by type

€m	31.12.2019	Prev. year
Annuity claims provision	7,914	7,333
Case reserve	26,102	25,697
IBNR reserve	36,859	33,326
Total	**70,875**	**66,356**

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 in the disclosures on risks from insurance contracts 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	
%	31.12.2019	Prev. year	31.12.2019	Prev. year
Up to one year	34.9	36.3	30.7	30.4
Over one year and up to five years	46.0	44.2	37.5	38.6
Over five years and up to ten years	11.9	11.4	15.7	15.7
Over ten years and up to fifteen years	3.3	3.7	5.7	5.5
Over fifteen years	3.9	4.4	10.4	9.8

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]

	2019			Prev. year		
€m	Gross	Ceded share	Net	Gross	Ceded share	Net
Balance at 31 Dec. previous year	53,937	–2,776	51,161	51,831	–2,757	49,074
Currency translation differences	1,045	-67	979	1,024	–81	943
Changes in consolidated group/Other	–228	76	–152	–545	74	–471
Claims expenses						
For the year under review	19,530	–718	18,812	18,443	–766	17,677
For previous years	–1,780	144	–1,636	–2,252	133	–2,119
Total claims expenses	17,750	–574	17,176	16,191	–634	15,558
Unwinding of discount	40	–1	39	48	–2	46
Less payments						
For the year under review	–4,922	164	–4,758	–5,756	285	–5,471
For previous years	–9,813	478	–9,335	–8,857	338	–8,519
Total payments	–14,735	642	–14,094	–14,613	624	–13,990
Balance at 31 Dec. financial year	**57,809**	**–2,700**	**55,109**	**53,937**	**–2,776**	**51,161**

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 gross provision for outstanding claims of the disposal group amounting to €0m (–301m) is recognised under "Changes in consolidated group/Other".

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	≤ 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
2009	12,131											
2010	8,052	4,817										
2011	4,863	3,210	5,750									
2012	2,504	1,621	4,171	5,701								
2013	1,554	705	2,013	2,949	5,594							
2014	1,896	609	1,114	1,422	3,224	5,308						
2015	1,439	384	555	462	1,244	2,860	4,990					
2016	1,589	329	449	351	688	1,479	2,695	5,265				
2017	479	130	119	193	463	674	1,343	2,603	4,936			
2018	689	129	155	218	286	385	792	1,679	4,257	5,522		
2019	773	67	98	138	170	242	415	829	1,949	4,659	4,793	14,133

Claims reserves for the individual accident years at the respective reporting dates (net)

€m	Accident year											
Date	≤ 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
31 Dec. 2009	41,708											
31 Dec. 2010	32,936	8,700										
31 Dec. 2011	27,181	5,680	11,844									
31 Dec. 2012	23,529	3,937	7,824	8,818								
31 Dec. 2013	21,484	3,316	5,526	5,650	8,815							
31 Dec. 2014	18,640	2,735	3,996	4,023	5,812	9,016						
31 Dec. 2015	16,288	2,149	3,316	3,348	4,525	6,183	8,598					
31 Dec. 2016	14,351	1,595	2,395	2,963	3,541	4,681	5,956	9,221				
31 Dec. 2017	13,703	1,335	2,248	2,670	2,977	3,795	4,402	6,457	12,731			
31 Dec. 2018	12,298	1,037	1,799	2,191	2,418	3,145	3,399	4,819	8,500	12,386		
31 Dec. 2019	10,408	913	1,432	1,820	2,096	2,719	2,834	3,820	6,421	8,592	14,135	55,190

Ultimate loss for the individual accident years at the respective reporting dates (net)

€m	Accident year											
Date	≤ 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
31 Dec. 2009	53,838											
31 Dec. 2010	53,118	13,517										
31 Dec. 2011	52,226	13,707	17,594									
31 Dec. 2012	51,079	13,585	17,745	14,520								
31 Dec. 2013	50,588	13,669	17,459	14,301	14,409							
31 Dec. 2014	49,641	13,698	17,043	14,096	14,630	14,324						
31 Dec. 2015	48,728	13,496	16,918	13,883	14,586	14,351	13,587					
31 Dec. 2016	48,380	13,270	16,446	13,848	14,291	14,328	13,640	14,486				
31 Dec. 2017	48,210	13,140	16,418	13,748	14,190	14,117	13,429	14,324	17,667			
31 Dec. 2018	47,495	12,971	16,124	13,488	13,917	13,851	13,219	14,366	17,693	17,907		
31 Dec. 2019	46,377	12,915	15,855	13,254	13,765	13,668	13,068	14,196	17,563	18,773	18,928	198,362
Net run-off result	7,461	603	1,739	1,266	644	656	519	290	104	–866	n/a	12,415
Change 2018 to 2019	1,118	56	269	234	151	183	151	170	130	–866	n/a	1,597

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 balance sheet date, 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	31.12.2019	Prev. year
Provision for premium refunds based on national regulations	9,312	8,549
Provision for deferred premium refunds	10,957	8,041
Thereof resulting from unrealised gains and losses on investments (recognised directly in equity)	6,168	3,254
Thereof resulting from other remeasurements (recognised in profit or loss)	4,788	4,788
Provision for profit commissions	611	593
Other	132	132
Total (gross)	**21,011**	**17,314**

Of the provision for premium refunds based on national regulations, €79m (78m) 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 (46m), of which €3m (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	2019	Prev. year
Status at 31 Dec. previous year	8,549	8,642
Changes in consolidated group	175	2
Allocation/Withdrawal	588	–96
Status at 31 Dec. financial year	**9,312**	**8,549**

Development of provision for deferred premium refunds

€m	2019	Prev. year
Status at 31 Dec. previous year	8,041	9,709
Changes in consolidated group	216	0
Change resulting from unrealised gains and losses on investments (recognised directly in equity)	2,915	–1,566
Change resulting from other remeasurements (recognised in profit or loss)	–215	–101
Status at 31 Dec. financial year	**10,957**	**8,041**

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	2019	Prev. year
Balance at 31 Dec. previous year	7,925	8,971
Changes in consolidated group/Other	5	–178
Savings premiums	510	465
Unrealised gains/losses on fund assets	1,044	–733
Withdrawal for expenses and risk	–32	–33
Withdrawal for benefits	–1,279	–567
Balance at 31 Dec. financial year	**8,172**	**7,925**

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.

We recognise a provision for the disposal group of €150m (–165m) in the item "Changes in consolidated group/Other".

25 Other provisions

Breakdown of other provisions

€m	31.12.2019	Prev. year
Provisions for post-employment benefits	3,748	2,992
Other provisions	1,543	1,391
Total	**5,291**	**4,383**

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 and insurance contracts concluded to cover the benefit obligations.

Expenses for defined contribution plans in the year under review totalled €68m (64m), with €111m (109m) for contributions to state plans.

The present value of obligations under defined benefit pension plans amounts to €7,067m (5,921m), and the plan assets to be deducted total €3,746m (3,301m). Defined benefit plans comprise the following main plans:

Munich Reinsurance Company's pension obligations account for €1,677m (1,521m) of the present value of obligations under defined pension plans and €1,908m (1,710m) of plan assets. The actuarial gains from changes in demographic assumptions amounting to €271m primarily arise from the changeover to updated biometric actuarial assumptions. The portfolio transfer owing to the restructuring of the Munich Re pension plan in 2019 led to minor one-off expenses recognised in profit or loss. 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 intra-Group insurance contracts securing the obligations under pension schemes. The fund and insurance contracts have been grouped in a contractual trust agreement (CTA).

The pension obligations of the ERGO Group account for €3,784m (3,018m) of the present value of obligations under defined pension plans and €501m (423m) of plan assets. The actuarial losses from changes in demographic assumptions amounting to €44m primarily arise from the changeover to updated biometric actuarial assumptions. 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 €749m (661m) of the present value of obligations under defined benefit plans, and €562m (484m) 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	2019	Prev. year
Status at 31 Dec. previous year	5,921	5,924
Currency translation differences	47	35
Changes in consolidated group	-1	-1
Current service cost	124	145
Past service cost	38	9
Gains and losses from plan settlements	-6	0
Contributions by plan participants	3	3
Interest expense	127	121
Payments	-163	-145
Payments from plan settlements	-11	-4
Transfer of obligations	-2	0
Actuarial gains/losses: Change in demographic assumptions	-327	-9
Actuarial gains/losses: Change in financial assumptions	1,290	-148
Actuarial gains/losses: Experience adjustments	26	-6
Other	-1	-2
Status at 31 Dec. financial year	**7,067**	**5,921**

The present value of medical-care benefit obligations amounted to €324m (274m) at the balance sheet date.

The present value of the obligations under defined benefit plans breaks down as follows:

Breakdown of the present value of defined benefit obligations

%	31.12.2019	Prev. year
Active members	49	48
Deferred members	17	16
Pensioners	34	36
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

%	2019	Prev. year
Discount rate	1.2	2.2
Future increases in entitlement/salary	1.8	1.8
Future pension increases	1.5	1.5
Medical cost trend rate	3.5	3.6

In the eurozone, the actuarial interest rate was 0.75% (1.80%) as at 31 December 2019. The actuarial losses from changes in financial assumptions amounting to €1,098m (previous year: gains of €42m) primarily arise 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 24.1 years for women, and 22.9 years for men.

Development of the fair value of plan assets for defined benefit plans

€m	2019	Prev. year
Balance at 31 Dec. previous year	3,301	3,253
Currency translation differences	45	20
Changes in consolidated group	–1	0
Interest income	80	72
Return excluding interest income	348	–45
Contributions by the employer	66	70
Contributions by plan participants	1	1
Payments	–83	–68
Payments from plan settlements	–11	–1
Transfer of assets	0	0
Other	–1	–1
Balance at 31 Dec. financial year	**3,746**	**3,301**

Breakdown of the fair value of plan assets for defined benefit plans

%	31.12.2019	Prev. year
Quoted market price in an active market		
Fixed-interest securities	40	41
Non-fixed-interest securities	23	22
Equities	5	4
Investment funds	18	17
Other	0	1
Other	0	1

Breakdown of the fair value of plan assets for defined benefit plans

%	31.12.2019	Prev. year
No quoted market price in an active market		
Cash or cash equivalents	0	0
Real estate	1	1
Fixed-interest securities	0	0
Non-fixed-interest securities	3	3
Equities	0	0
Investment funds	3	3
Other	0	0
Insurance contracts	32	31
Other	1	1

As in the previous year, the plan assets do not include any own shares.

For the 2020 financial year, capital transfers of €85m (84m) to plan assets are expected.

Development of the reimbursement rights for defined benefit plans

€m	2019	Prev. year
Balance at 31 Dec. previous year	292	280
Changes in consolidated group	0	–1
Interest income	5	5
Return excluding interest income	47	–4
Contributions by the employer	19	21
Contributions by plan participants	0	0
Payments	–8	–8
Transfer of assets	0	0
Other	–1	–1
Balance at 31 Dec. financial year	**357**	**292**

The reimbursement rights derive from insurance concluded to cover the benefit obligations.

There was an effect of €17m (12m) resulting from the asset ceiling on overfunded defined benefit plans.

Funded status of defined benefit plans

€m	31.12.2019	Prev. year
Obligations funded through provisions		
Present value of defined benefit obligations	3,404	2,780
Other	0	0
Net balance sheet liability	3,404	2,780
Obligations funded through plan assets		
Present value of defined benefit obligations	3,663	3,140
Plan assets	–3,746	–3,301
Assets from the defined benefit plan	412	365
Effect of asset ceiling	17	12
Other	–2	–6
Net balance sheet liability	344	212
Obligations independent of funded obligations		
Present value of defined benefit obligations	7,067	5,921
Plan assets	–3,746	–3,301
Assets from the defined benefit plan	412	365
Effect of asset ceiling	17	12
Other	–2	–6
Net balance sheet liability	**3,748**	**2,992**

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	2019	Prev. year
Balance at 31 Dec. previous year	2,992	2,982
Currency translation differences	8	13
Changes in consolidated group	–1	–1
Expenses	200	201
Payments	–80	–76
Payments from plan settlements	0	–4
Capital transfer to plan assets	–67	–71
Transfer of assets	0	0
Transfer to other receivables	42	64
Actuarial gains/losses recognised in equity	598	–114
Other	57	–2
Balance at 31 Dec. financial year	**3,748**	**2,992**

Breakdown of expenses booked in the financial year

€m	2019	Prev. year
Net interest cost	41	44
Service cost	160	156
Other	–1	1
Total	**200**	**201**

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 amounts to €428m (27m), and the actual gains on reimbursements to €53m (0m).

Contractual period to maturity of pension obligations

€m	31.12.2019	Prev. year
Up to one year	167	156
Over one year and up to five years	762	730
Over five years and up to ten years	1,076	1,031
Over ten years and up to twenty years	2,514	2,503
Over twenty years	5,519	6,058
Total	**10,038**	**10,478**

The weighted average contractual period to maturity of our pension obligations is 20 (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	31.12.2019	Prev. year
Increase in actuarial discount rate by 50 BP	–668	–531
Decrease in actuarial discount rate by 50 BP	773	593
Increase in salary/entitlement trends by 10 BP	31	23
Decrease in salary/entitlement trends by 10 BP	–29	–20
Increase in pension trends by 10 BP	72	60
Decrease in pension trends by 10 BP	–70	–61
Increase in medical cost trend rate by 100 BP	56	44
Decrease in medical cost trend rate by 100 BP	–46	–37
Increase in mortality rate by 10%	–217	–158
Decrease in mortality rate by 10%	233	170

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	31.12.2019
Restructuring	459	22	–86	–17	–17	361
Commissions	180	2,072	–2,054	–5	0	193
Multi-year variable compensation	111	79	–31	–3	–4	152
Early retirement benefits/semi-retirement	101	49	–15	0	14	149
Salary obligations and other remuneration for desk and field staff	109	108	–96	–3	0	117
Anniversary benefits	92	11	–1	–1	1	101
Miscellaneous	339	465	–231	–96	–8	469
Total	**1,391**	**2,806**	**–2,514**	**–126**	**–14**	**1,543**

The provisions for restructuring mainly concern €246m (295m) for the “ERGO Strategy Programme” and €107m (132m) for the comprehensive restructuring of the sales organisations of the ERGO Group. ERGO also posted further restructuring provisions of €4m (16m) for the “Continuous improvement of the competitive position” project plus €1m (7m) 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 medium-term 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 medium-term incentive plans are mainly long term, whereas the provisions for earned commission, salary obligations, 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	31.12.2019	Prev. year
Munich Re America Corporation, Wilmington, 7.45%, US$ 334m, Senior Notes 1996/2026	a	A+	A2	A–	297	292
Total					**297**	**292**

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 €384m (354m).

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	31.12.2019	Prev. year
Amounts payable on primary insurance business	2,989	2,946
Accounts payable on reinsurance business	4,293	4,555
Amounts due to banks	557	674
Lease liabilities	374	0
Miscellaneous liabilities	11,430	9,972
Total	**19,643**	**18,147**

The accounts payable on primary insurance business mainly contain liabilities towards policyholders resulting from accumulated participation in surplus, premium deposits and insurance contracts with non-significant risk transfer.

For more information on the interest paid for liabilities from leases in the 2019 financial year, please refer to Notes to the consolidated income statement (36) Other operating result. See (29) Liabilities from financing activities for information on cash outflows for leases in 2019.

Of the amounts due to banks, €78m (93m) is attributable to bank borrowing by Group companies acquired by Munich Re under its infrastructure investment strategy.

The miscellaneous liabilities contain liabilities of €5,166m (3,989m) resulting from reinsurance contracts with non-significant risk transfer, derivative financial instruments with a negative fair value of €604m (631m), and negative fair values totalling €1,122m (948m) for insurance-linked derivatives and hedging derivatives of variable annuities. The miscellaneous liabilities also include €26m (21m) for social security and €32m (148m) for interest and rent.

The following table provides information on the remaining contractual maturities 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. This currently also applies to the derivatives embedded in variable annuity business; see Disclosures on risks from insurance contracts, (39) Disclosures on risks from life and health insurance business. The derivatives listed below are recognised at fair value.

Remaining terms of the other liabilities according to undiscounted contractual cash flows

€m	31.12.2019	Prev. year
Up to one year	9,154	9,516
Over one year and up to two years	463	163
Over two years and up to three years	2,495	271
Over three years and up to four years	267	172
Over four years and up to five years	61	2,062
Over five years and up to ten years	2,338	1,391
Over ten years	1,183	711
Total	**15,961**	**14,288**

The major portion of the liabilities up to one year involve interest-free items, where the carrying amounts and the undiscounted cash flows are identical. A total of €178m (334m) of the amounts owed to banks and €371m (920m) of the liabilities from derivatives are due within one year.

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		Assets held to hedge long-term borrowings		Liabilities from financing activities	
€m	2019	Prev. year	2019	Prev. year	2019	Prev. year	2019	Prev. year	2019	Prev. year
Balance at 31 Dec. prev. year	674	602	3,980	3,068	0	0	0	0	4,654	3,670
Adjustment at 1 Jan. 2019 as a result of IFRS 16	0	0	0	0	341	0	0	0	341	0
Cash changes	–118	71	0	893	-86	0	0	0	–204	963
Non-cash changes										
Currency changes	2	1	36	15	–3	0	0	0	35	16
Changes in the fair value	0	0	0	0	0	0	0	0	0	0
Changes in consolidated group/ other	0	0	120	4	122	0	0	0	242	5
Balance at 31 Dec. financial year	**557**	**674**	**4,136**	**3,980**	**374**	**0**	**0**	**0**	**5,068**	**4,654**

Long-term borrowings include subordinated liabilities and bonds and notes issued.

Notes to the consolidated income statement

30 Premiums

Premiums

€m	2019	Prev. year
Total gross premiums	52,687	49,973
Gross premiums written	51,457	49,064
Change in gross unearned premiums	–584	–1,045
Gross earned premiums	**50,873**	**48,019**
Ceded premiums written	–2,650	–2,357
Change in unearned premiums – Ceded share	57	72
Earned premiums ceded	**–2,594**	**–2,284**
Net earned premiums	**48,280**	**45,735**

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 balance sheet date are recognised as unearned premiums; see Notes to the consolidated balance sheet – Equity and liabilities under (20) Unearned premiums. Over the duration of the contracts, unearned premiums are reversed in accordance with the reduction in risk.

Revenues for services within the meaning of IFRS 15, Revenue from Contracts with Customers, essentially derive from technical engineering and inspection services, assistance services, investment management services and services in connection 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 Interest 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	2019	Prev. year
Gross		
Claims and benefits paid	–34,843	–33,679
Change in technical provisions		
Provision for future policy benefits	–774	211
Provision for outstanding claims	–3,441	–1,933
Provision for premium refunds	–1,876	–839
Other technical result	–125	–125
Gross expenses for claims and benefits	**–41,058**	**–36,366**
Ceded share		
Claims and benefits paid	1,058	851
Change in technical provisions		
Provision for future policy benefits	432	346
Provision for outstanding claims	–99	45
Provision for premium refunds	0	3
Other technical result	–19	6
Expenses for claims and benefits – Ceded share	**1,373**	**1,250**
Net		
Claims and benefits paid	–33,785	–32,829
Change in technical provisions		
Provision for future policy benefits	–342	556
Provision for outstanding claims	–3,539	–1,888
Provision for premium refunds	–1,875	–836
Other technical result	–143	–119
Net expenses for claims and benefits	**–39,685**	**–35,116**

The change in the provision for future policy benefits (net) contains €1,044m (–733m) in unrealised gains/losses from unit-linked life insurance. Expenses for claims and benefits include expenses for policyholders' bonuses. Of these expenses, €1,231m (1,194m) is for the allocation to the provision for premium refunds on the basis of national regulations, €10m (–111m) for the change in the provision for deferred premium refunds recognised in the income statement, and €293m (47m) 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	2019	Prev. year
Gross		
Acquisition costs, profit commission and reinsurance commission paid	–10,492	–10,098
Administrative expenses	–3,325	–3,027
Change in deferred acquisition costs and contingent commissions, amortisation and impairment losses on acquired insurance portfolios	8	20
Gross operating expenses	**–13,809**	**–13,105**
Ceded share		
Acquisition costs, profit commission and reinsurance commission paid	681	635
Change in deferred acquisition costs and contingent commissions	–121	–116
Operating expenses – Ceded share	**560**	**518**
Net operating expenses	**–13,249**	**–12,587**

34 Investment result

Investment result by type of investment (before deduction of income from technical interest)

€m	2019	Prev. year
Land and buildings, including buildings on third-party land	**550**	**563**
Investments in affiliated companies	**10**	**-3**
Investments in associates and joint ventures	**213**	**186**
Loans	**2,070**	**2,092**
Other securities available for sale		
Fixed-interest	4,214	3,408
Non-fixed-interest	1,475	389
Other securities at fair value through profit or loss		
Held for trading		
Fixed-interest	0	0
Non-fixed-interest	15	-6
Derivatives	-595	246
Designated at fair value through profit or loss		
Fixed-interest	17	3
Non-fixed-interest	51	-23
Deposits retained on assumed reinsurance, and other investments	**396**	**280**
Expenses for the management of investments, other expenses	**-678**	**-610**
Total	**7,737**	**6,526**

The result for land and buildings includes rental income of €513m (489m). The expenses for the management of investments include running costs and expenses for repair and maintenance of property totalling €103m (92m). We earned interest income of €1,857m (1,889m) on loans. Other securities available for sale produced regular income of €3,696m (3,506m), while derivatives generated €146m (151m). Interest expenses on non-derivative investments amounted to €11m (8m), administrative expenses to €448m (392m), and other expenses to €126m (126m).

Write-downs of non-derivative investments

€m	2019	Prev. year
Land and buildings, including buildings on third-party land	-139	-124
Investments in affiliated companies	-3	-10
Investments in associates and joint ventures	-1	-62
Loans	-21	-21
Other securities available for sale	-345	-968
Other securities at fair value through profit or loss	-25	-74
Other investments	-41	-56
Total	**-575**	**-1,315**

35 Insurance-related investment result

Insurance-related investment result

€m	2019	Prev. year
Result from investments for unit-linked life insurance contracts	1,091	-696
Result from other insurance-related investments	85	12
Total	**1,176**	**-685**

36 Other operating result

Other operating result

€m	2019	Prev. year
Other operating income	1,093	827
Thereof:		
Interest and similar income	239	135
Write-ups of other operating assets	25	83
Other operating expenses	-1,347	-976
Thereof:		
Interest and similar charges	-156	-117
Write-downs of other operating assets	-116	-86

Other operating income mainly comprises income of €684m (473m) from services rendered, interest income of €109m (30m), income of €84m (88m) from the release/reduction of miscellaneous provisions and provisions for bad and doubtful debts, and income of €34m (79m) from owner-occupied property, some of which is also leased out.

Other operating expenses include expenses of €672m (439m) for services rendered and interest charges of €142m (87m), thereof €7m from leases. In addition, they mainly include other write-downs of €108m (78m), as well as other tax of €138m (119m) and expenses of €15m (16m) 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 €115m (80m). A total of €114m (81m) 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	2019	Prev. year
Other non-operating result	-665	-639
Currency result	73	-39
Net finance costs	-222	-196

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 −€560m (−507m), write-downs of €46m (47m) on other intangible assets, and restructuring expenses of €60m (90m).

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	2019	Prev. year
Subordinated bonds of Munich Reinsurance Company, Munich	−194	−170
Senior notes of Munich Re America Corporation, Wilmington	−22	−21
Subordinated bonds of HSB Group Inc., Delaware	−3	−3
Other	−2	−1
Total	**−222**	**−196**

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	2019	Prev. year
Current tax for financial year	−673	−893
Current tax for other periods	114	550
Deferred tax resulting from the occurrence or reversal of temporary differences	−3	−182
Deferred tax resulting from the occurrence or utilisation of loss carry-forwards	184	41
Valuation allowances for deferred taxes/loss carry-forwards	−82	−93
Effects of changes in tax rates on deferred tax	−23	1
Taxes on income	**−483**	**−576**

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	2019	Prev. year
Result before taxes on income (after “other tax”)	3,190	2,851
Group tax rate in %	33	33
Derived taxes on income	−1,053	−941
Tax effect of:		
Tax rate differences	300	179
Tax-free income	258	23
Non-deductible expenses	−181	−242
Valuation allowances for deferred taxes/loss carry-forwards	−82	−93
Change in tax rates and tax legislation	88	1
Tax for prior years	273	586
Trade tax adjustments	−1	−1
Other	−85	−88
Taxes on income shown	**−483**	**−576**

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 2019 financial year, there was a tax burden of 15.1% (previous year: 20.2%).

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 management report under Section 315(2) no. 2 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 within the management report, in the disclosures on risks from insurance contracts, 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.

Underwriting risk Of 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.

Market risk With regard to our technical provisions, we are particularly exposed to 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	31.12.2019	Prev. year
Without discount rate	3,907	3,967
Discount rate ≤ 2.0%	1,055	780
2.0% < discount rate ≤ 3.0%	2,587	252
3.0% < discount rate ≤ 4.0%	4,362	5,245
4.0% < discount rate ≤ 5.0%	3,138	4,391
5.0% < discount rate ≤ 6.0%	1,573	1,498
6.0% < discount rate ≤ 7.0%	97	97
7.0% < discount rate ≤ 8.0%	476	423
Discount rate > 8.0%	247	215
Covered by deposits retained on assumed reinsurance	4,728	4,277
Total	**22,171**	**21,145**

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. 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.

In primary insurance, 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 – Primary insurance (gross)

	Life		Health		Total	
€m	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year
Without discount rate	4,231	4,422	1,624	1,568	5,854	5,990
Discount rate ≤ 2.0%	6,805	6,057	2,142	842	8,947	6,898
2.0% < discount rate ≤ 3.0%	21,563	21,803	14,246	13,315	35,809	35,118
3.0% < discount rate ≤ 4.0%	30,989	31,929	14,612	11,387	45,601	43,316
4.0% < discount rate ≤ 5.0%	889	1,006	4,963	9,072	5,852	10,078
Discount rate > 5.0%	2	2	0	2	2	3
Total	**64,478**	**65,219**	**37,587**	**36,184**	**102,066**	**101,403**

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 €5,729m (5,255m). 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 portfolios, 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.

Liquidity risk 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	31.12.2019	Prev. year
Up to one year	-2,597	-3,458
Over one year and up to five years	-9,310	-9,651
Over five years and up to ten years	-15,835	-16,146
Over ten years and up to 20 years	-35,656	-38,305
Over 20 years	-97,453	-101,376

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. Besides this, the liquidity risk has to be taken into account.

Premium risk 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

	2019	2018	2017	2016	2015
Gross premiums written in €m					
Reinsurance					
Liability	3,703	3,384	3,013	2,911	2,869
Accident	416	372	393	316	274
Motor	5,291	5,367	3,978	3,943	3,707
Marine, aviation, space	1,617	1,388	1,268	1,308	1,546
Fire	5,064	4,761	4,308	4,375	4,238
Engineering	1,453	1,315	1,311	1,438	1,550
Credit and surety	787	657	634	641	617
Other classes of business	3,760	3,192	2,938	2,895	2,877
Primary insurance	6,771	6,694	6,531	6,135	5,985
Loss ratio in %					
Reinsurance					
Liability	64.8	71.3	84.8	73.2	71.0
Accident	68.0	10.4	58.0	74.2	83.3
Motor	67.6	71.4	77.0	72.3	69.3
Marine, aviation, space	80.7	40.8	50.3	56.7	46.7
Fire	73.6	69.9	109.5	59.7	42.2
Engineering	40.6	48.5	60.1	48.3	44.8
Credit and surety	20.7	46.0	59.7	71.1	65.7
Other classes of business	71.6	69.2	71.0	55.1	57.0
Primary insurance	58.6	58.7	59.8	59.7	63.6
Combined ratio in %					
Reinsurance					
Liability	100.5	105.7	119.3	107.4	104.3
Accident	106.9	51.0	94.2	99.2	121.7
Motor	100.4	103.3	107.9	100.9	99.7
Marine, aviation, space	115.1	75.1	81.8	92.3	80.2
Fire	102.6	98.5	137.8	86.3	70.2
Engineering	90.1	95.1	107.8	93.1	89.2
Credit and surety	63.7	89.0	101.8	110.8	109.0
Other classes of business	106.0	107.4	105.9	90.3	88.6
Primary insurance	93.3	95.2	96.0	97.5	100.1

In the pricing of risks assumed in the accident, fire and marine lines of business, and also in sections of engineering reinsurance and in primary insurance, 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]

%	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Including natural catastrophes[2]	101.0	99.4	114.1	95.7	89.7	92.7	92.1	91.0	113.8	100.5
Excluding natural catastrophes	91.0	92.6	92.1	90.2	88.8	89.4	87.4	83.3	84.4	89.5

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. Comparability with 2010 is thus limited.
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, whilst the other accumulation risks exhibit a distinctly less volatile pattern.

Large losses in reinsurance according to individual calendar years (net)

€m	2019	2018	2017	2016	2015
Large losses	–3,124	–2,152	–4,314	–1,542	–1,046
Thereof losses from natural catastrophes	–2,053	–1,256	–3,678	–929	–149
Thereof other accumulation losses	–1,071	–896	–636	–613	–897

Further information on risks from large and accumulation losses can be found in the section on business performance, and in the risk report.

Reserve risk The provision for outstanding claims is subject to 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

	31.12.2019		Prev. year	
€m[1]	Gross	Net	Gross	Net
Asbestos	1,212	1,067	1,295	1,131
Environmental	366	301	389	313

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 in the Notes to the consolidated balance sheet – Equity and liabilities (22) Provision for outstanding claims.

Interest-rate risks 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 according to discount rates (gross)

	Reinsurance		Primary insurance		Total	
€m	31.12.2019	Prev. year	31.12.2019	Prev. year	31.12.2019	Prev. year
Discount rate = 2.0%	62	64	432	385	494	448
2.0% < discount rate = 3.0%	176	167	381	292	557	459
3.0% < discount rate = 4.0%	52	70	369	388	421	458
4.0% < discount rate = 5.0%	799	897	0	0	799	897
Discount rate > 5.0%	0	0	0	0	0	0
Total	**1,090**	**1,197**	**1,182**	**1,065**	**2,271**	**2,262**

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.

Liquidity risk 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	2019	2018	2017	2016	2015
Premiums received	28,857	27,130	24,293	23,786	23,511
Claims payments for financial year	–5,091	–5,901	–5,360	–5,882	–5,659
Claims payments for previous years	–9,846	–8,873	–6,675	–8,545	–7,619
Costs	–9,668	–9,234	–8,093	–7,719	–7,501
Balance	**4,252**	**3,122**	**4,165**	**1,639**	**2,731**

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 management report under the remuneration 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 Notes to the consolidated balance sheet – Equity and liabilities (25) Other provisions.

For transactions of related parties with Munich Reinsurance Company shares, please refer to Notes to the consolidated balance sheet – Equity and liabilities (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	2019	Prev. year
Wages and salaries	–2,901	–2,832
Social security contributions and employee assistance	–503	–489
Expenses for employees' pensions	–270	–238
Total	**–3,674**	**–3,559**

44 Mid-Term Incentive Plan

Since 1 January 2009, Munich Reinsurance Company has set up medium-term incentive plans, each with a term of three years. Eligible for participation in these cash-settled share-based remuneration plans are senior management in Munich. 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 the 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 reporting date is valued indirectly at the fair value of the liabilities. The fair value takes account of the value-based performance target and the 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 financial year 2019, expenses of €38m (23m) were recognised for the Mid-Term Incentive Plans. The provision at the reporting date amounted to €71m (42m).

Munich Re's Mid-Term Incentive Plans 2016–2019

	Incentive Plan 2016	Incentive Plan 2017	Incentive Plan 2018	Incentive Plan 2019
Plan commencement	1.1.2016	1.1.2017	1.1.2018	1.1.2019
Plan end	31.12.2018	31.12.2019	31.12.2020	31.12.2021
Fair value 2019 for one right	0.00 €	709.70 €	739.75 €	770.66 €
Number of rights (for 100% achievement of objectives) on 1 January 2016	0	0	0	0
Additions	32,525	0	0	0
Number of rights (for 100% achievement of objectives) on 31 December 2016	32,525	0	0	0
Number of rights (for 100% achievement of objectives) on 1 January 2017	32,525	0	0	0
Additions	120	31,268	0	0
Forfeited	1,136	0	0	0
Number of rights (for 100% achievement of objectives) on 31 December 2017	31,509	31,268	0	0
Number of rights (for 100% achievement of objectives) on 1 January 2018	31,509	31,268	0	0
Additions	0	0	27,872	0
Forfeited	0	0	0	0
Number of rights (for 100% achievement of objectives) on 31 December 2018	31,509	31,268	27,872	0
Number of rights (for 100% achievement of objectives) on 1 January 2019	31,509	31,268	27,872	0
Additions	0	0	0	26,651
Exercised	31,509	0	0	0
Forfeited	0	27	104	0
Number of rights (for 100% achievement of objectives) on 31 December 2019	0	31,241	27,768	26,651

45 Remuneration report

The members of Munich Reinsurance Company's Board of Management received remuneration totalling €23.8m (20.5m). The total remuneration of Munich Reinsurance Company's Supervisory Board amounted to a total of €3.2m (2.8m); this figure includes €0.2m (0.2m) for reported remuneration for membership of supervisory boards at other Group companies.

Payments to retired members of the Board of Management or their surviving dependants totalled €12.4m (10.9m). Included in this amount is compensation in the amount of €0.8m paid to a former member of the Board of Management for a post-contractual non-competition agreement.

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 €1.5m (1.3m). The Board members hold insurance policies with companies belonging to Munich Re, and have small MEAG fund holdings. There were no significant notifiable transactions between Board members and Munich Re.

All other disclosures on the remuneration, the structure of the remuneration system and share ownership by members of the Board of Management can be found in the management report under the remuneration report. Information on share trading by Board members is provided in the Statement on Corporate Governance.

46 Number of staff

The number of staff at year-end totalled 18,790 (19,191) in Germany and 20,872 (22,219) in other countries.

Breakdown of number of staff

	31.12.2019	Prev. year
Reinsurance	12,362	12,324
ERGO	27,300	29,086
Total	**39,662**	**41,410**

47 Auditor's fees

For services rendered to the parent and consolidated subsidiaries by the Group auditor (KPMG Bayerische Treuhandgesellschaft AG Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft, Munich, and its affiliated companies within the meaning of Section 271(2) of the German Commercial Code – HGB), the following fees have been recognised as an expense in the financial year:

Breakdown of auditors' fees

€k	2019
Audit services	–10,905
Other assurance and appraisal services	–72
Tax consultancy services	0
Other services	–5,234
Total	**–16,211**

Of the auditors' fees, €10,677k (9,459k) is attributable to KPMG Bayerische Treuhandgesellschaft AG Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft, Munich. All other services were rendered mostly by their affiliated companies.

The auditors' fees mainly relate to the audits of the consolidated financial statements and the annual financial statements of Munich Reinsurance Company, and 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). In addition, reviews of interim financial statements and project-related IT audits, and contractual reviews of the effectiveness of a service company's controls, were carried out.

Other assurance and appraisal services concern statutory or contractual audit services, voluntary audit services, and mandatory assurance and appraisal services for submission to the competent authorities.

Other services essentially relate to quality assurance support and consulting services in connection with accounting issues, the introduction of regulatory requirements or of new accounting standards, each based on solutions and concepts produced by us. In addition, the auditor conducted an audit of the appropriateness of the structuring of parts of the internal control system.

48 Contingent liabilities, other financial commitments

Munich Re enters into contingent liabilities in connection with its normal business operations. At the reporting date, the obligations from guarantees are insignificant. The obligations from legal disputes total €32m (31m). Moreover, there is a letter of support in the amount of €2m (3m) issued to a non-consolidated subsidiary. There are other contingent liabilities amounting to €32m (28m). Furthermore, there is a contingent liability of £26m (26m) from our investments in associates and joint ventures. These concerned a payment obligation in the event of an associate's over-indebtedness.

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 a general 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 €166m (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 other members of these pools are 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 €765m (701m) for work and service contracts and €2,845m (2,629m) for investment obligations, of which €13m (13m) is from our investments in joint ventures. At the reporting date, there were loan commitments amounting to €1,720m (1,753m). These figures represent undiscounted nominal amounts. There are other financial commitments amounting to €9m (15m).

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. In principle, 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 2019 (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 Leasing

Munich Re as lessee Please see Notes to the consolidated balance sheet – Assets (15) Other assets and Notes to the consolidated balance sheet – Equity and liabilities (28) Other liabilities for information on rights of use and lease liabilities.

Short-term leases with a duration shorter than 12 months (and no option to buy), and lease agreements where the underlying asset is of low value, are not recognised in the financial statements. Instead they are recognised through profit or loss as an expense of €10m (0m).

Munich Re as lessor Operating leases mainly involve leased property.

Future minimum lease payments under operating leases

€m	31.12.2019	Prev. year
Up to one year	341	264
Over one year and up to five years	1,040	772
Over five years	765	682
Total	**2,145**	**1,718**

There were several finance leases for property at the balance sheet date, which are listed in the following table:

Due dates

	31.12.2019			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	0	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	71	56	15
Total minimum lease payments	**73**	**57**	**16**	**74**	**57**	**17**
Unguaranteed residual values	41	32	10	41	32	9
Total	**114**	**88**	**26**	**115**	**89**	**25**

51 Events after the balance sheet date

Under the share buy-back programme decided on by Munich Reinsurance Company's Board of Management in March 2019, we repurchased a further 0.7 million Munich Re shares with a volume of €187m from the balance sheet date to the end of February 2020.

On 30 January 2020, Munich acquired 100% of the voting shares in the wind park company FW Żary sp. z o.o., Warsaw, Poland 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.

On 16 January 2020, via its subsidiary MR Gotham LP, Delaware, Munich Re signed an agreement to purchase around 20% of the voting shares in Astoria Power Partners Holding LLC, Delaware. Astoria Power Partners Holding LLC, indirectly holds 100% of the voting rights in Astoria Energy I and 55% of the shares in 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 energy supply security in Greater New York. The transaction is subject to approval by the competent authorities and is scheduled for completion in the first half of 2020.

On 28 February 2020, Munich Re acquired a high-rise office building at 330 Madison Avenue in New York City via its subsidiary 330 Madison Associates LLC, Dover, Delaware, USA, as an investment. The investment has a preliminary fair value of €0.8bn, and constitutes a business pursuant to IFRS 3 as it includes the assumption of contracts to manage the building. As part of the transaction, a mortgage with a preliminary fair value of €0.4bn was taken over from the seller. The purchase price was €0.8bn, of which €0.4bn was paid in cash and €0.4bn stems from the assumed mortgage.

A new coronavirus that originated in China (Covid-19) has been spreading across the world since early January 2020. From today's perspective, Munich Re does not expect the consequences of the coronavirus to have any overall material effect on the annual result. However, the more this virus spreads, the greater the impact could be on Munich Re. Even in the very unlikely scenario of a worldwide pandemic equivalent to a 200-year event, Munich Re would face a maximum of €1.4bn in life and health insurance claims – similar in scope to a medium-sized natural catastrophe in property-casualty reinsurance. Mainly driven by the insurance of major events, such a scenario could also lead to losses in the medium-to-high triple-digit-million euro range in property-casualty reinsurance. Munich Re does not currently anticipate a global recession in the financial markets. The impact of falling equity markets would be partially offset by hedging, and current capital market forecasts show that any potential negative effect on results would be limited. If a worldwide pandemic with the aforementioned effects were to occur, more far-reaching upheavals on the capital markets and more significant implications for the result would be expected.

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

		2019	Prev. year
Consolidated result attributable to Munich Reinsurance Company equity holders	€m	2,724	2,310
Weighted average number of outstanding shares		143,638,536	148,703,565
Earnings per share	€	18.97	15.53

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 Recognition and measurement – Changes in accounting policies and other adjustments).

The number of outstanding shares decreased by 4,336,780 (5,462,053) over the course of the 2019 financial year, essentially due to the share buy-back programme.

53 Proposal for appropriation of profit

Munich Reinsurance Company's net retained profits for 2019 according to its financial statements prepared on the basis of German GAAP accounting amount to €1,414,315,037.80. 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 remaining amount being carried forward to new account.

List of shareholdings as at 31 December 2019 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.[4]	98.0000
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, Rue 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, Denver, 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, Cincinnati, 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
ArztPartner almeda AG, Munich	100.0000
Atena Uslugi Informatyczne i Finansowe S.A., Sopot	100.0000
ATU Landbau GmbH & Co. KG, Munich[1]	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., Reston, Virginia	100.0000
Bell & Clements Inc., Reston, Virginia	100.0000
Bell & Clements Ltd., London	100.0000
Bridgeway Insurance Company, Amelia, Ohio	100.0000
Cannock B.V., Leidschendam	100.0000
Cannock Chase Holding B.V., Amsterdam	100.0000
Cannock Connect Center B.V., Brouwershaven	100.0000
Cannock Outsourcing B.V., The Hague	62.5000
Cannock PurChase B.V., The Hague	100.0000
Cannock-EDR Holding B.V., Amsterdam	100.0000
Ceres Demetra GmbH, Munich	100.0000
Closed Joint Stock Company «ERGO» Insurance Company, Minsk	93.1172
Comino Beteiligungen GmbH, Grünwald	100.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2018-17, San Francisco, California	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2018-24, San Francisco, California	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2018-31, San Francisco, California	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-05, San Francisco, California	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-10, San Francisco, California	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-40, San Francisco, California	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-47, San Francisco, California	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. Hellas Insurance Company of Legal Protection S.A., Athens	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, Providence, Rhode Island	100.0000
Digital Affect Insurance Company, New York City, New York	100.0000
Digital Edge Insurance Company, Wilmington, Delaware	100.0000

Company and registered seat	% share of capital
Digital Porte Inc., Toronto, Ontario	100.0000
DKV Belgium S.A., Brussels	100.0000
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 I5D), 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 Életbiztosító Zrt, Budapest	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 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 Poist'ovna a.s., Bratislava	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 Technology & Services Management AG, Düsseldorf	100.0000

Company and registered seat	% share of capital
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
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., Barcelona	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]	98.2000
Gaucheret S.A., Brussels	100.0000
GF 65, Vienna[4]	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 e Turisticos, 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
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, Gujarat	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

Company and registered seat	% share of capital
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
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]	56.5871
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

Company and registered seat	% share of capital
MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH, Munich	100.0000
MEAG Munich Re Placement, Grünwald[4]	100.0000
MEAG New York Corporation, Wilmington, Delaware	100.0000
MEAG PEGASUS, Munich[4]	100.0000
MEAG Pension Invest, Munich[4]	100.0000
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, Düsseldorf	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 Tandem, 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., Miami, 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 3. EUR AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen 16. GmbH, Munich[3]	100.0000
MR Beteiligungen 17. GmbH, Munich	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 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 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
Munich American Holding Corporation, Wilmington, Delaware	100.0000
Munich American Life Reinsurance Company, Atlanta, Georgia	100.0000
Munich American Reassurance Company, Atlanta, 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, Wilmington, Delaware	100.0000
Munich Life Management Corporation Ltd., Toronto, Ontario	100.0000
Munich Re America Corporation, Wilmington, 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., Schaumburg, Illinois	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, Wilmington, Delaware	100.0000
Munich Re UK Services Limited, London	100.0000
Munich Re US Life Corporation, Atlanta, 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., Wilmington, 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
MunichFinancialGroup GmbH, Munich	100.0000
Neokami GmbH, Munich	100.0000
Neokami Inc., Wilmington, Delaware	100.0000
New Reinsurance Company Ltd., Zurich	100.0000
nexible Versicherung AG, Nuremberg	100.0000
NMU Specialty Ltd., Leeds	100.0000
OIK Mediclin, Wiesbaden[4]	70.7073
Pan Estates LLC, Wilmington, Delaware	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
Prosper Pass-Thru Trust I Series 2019-02, Wilmington, Delaware	95.0000

Company and registered seat	% share of capital
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
Proximetry LLC, Wilmington, Delaware	100.0000
Proximetry Poland Sp. Z o.o, Katowice	100.0000
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., Wilmington, Delaware	100.0000
Relayr Limited, Watford	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
SunEnergy & Partners S.r.l., Brixen	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, Cincinnati, Ohio	100.0000
The Polytechnic Club Inc., Hartford, Connecticut	100.0000
The Princeton Excess and Surplus Lines Insurance Company, Wilmington, Delaware	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, Vilnius	100.0000
UAB Sietuve, Vilnius	100.0000
UAB Terra Culta, Vilnius	100.0000
UAB Ukelis, Vilnius	100.0000
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

Company and registered seat	% share of capital
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
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
B&D Business Solutions B.V., Utrecht	100.0000
Backpack Insurance Agency Inc., Dover, Delaware	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., The Hague	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
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

Company and registered seat	% share of capital
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, Bingham Farms, 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 Incasso Eindhoven B.V., 's-Hertogenbosch	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) Consulting Ltd., Beijing	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 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
ERGO Zehnte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
ERGO Zwölfte Beteiligungsgesellschaft mbH, Munich	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

Company and registered seat	% share of capital
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 Pragueue, s.r.o., Prague	100.0000
EUROCENTER S.A., Palma de Mallorca	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 Ireland Limited, Dublin	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 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
IDEENKAPITAL Treuhand US Real Estate eins GmbH, Düsseldorf	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, Hamburg	100.0000
IK Property Treuhand GmbH, Düsseldorf	100.0000
IK US Portfolio Invest DREI Verwaltungs-GmbH i. L., Düsseldorf	100.0000
IK US Portfolio Invest Verwaltungs-GmbH i. L., Düsseldorf	100.0000
IK US Portfolio Invest ZWEI Verwaltungs-GmbH i. L., Düsseldorf	100.0000
Jogszerviz Kft, Budapest	100.0000
JRP Insurance Management Limited, London	100.0000
Junos Verwaltungs GmbH, Munich	100.0000

Company and registered seat	% share of capital
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
Leggle B.V., Amsterdam	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., Brussels	100.0000
MEAG EM Rent Nachhaltigkeit (A+I Tranche), Munich[4]	56.7180
MEAG FlexConcept – EuroGrowth, Luxembourg[4]	100.0000
MEAG Hong Kong Limited, Hong Kong	100.0000
MEAG Luxembourg S.à r.l., Luxembourg	100.0000
MEAG MultiSmart (A+I), Munich[4]	63.8328
MEAG Pension Rent, Munich[4]	100.0000
MEAG Pension Safe, Munich[4]	99.9961
MEAG Real Estate Erste Beteiligungsgesellschaft mbH i.L., Munich	100.0000
MEAG Vermögensanlage Komfort, Munich[4]	38.0040
MEAG Vermögensanlage Return (A+I Tranche), Munich[4]	54.1100
Mediastream Consulting GmbH, Grünwald	100.0000
Mediastream Dritte Film GmbH i. L., Grünwald	100.0000
Mediastream Film GmbH, Grünwald	100.0000
Mediastream Zweite Film GmbH, 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	78.1419
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
MR Beteiligungen 2. GmbH, Munich	100.0000
MR Beteiligungen 3. GmbH, Munich	100.0000
MR Beteiligungen 15. GmbH, Munich	100.0000
MR Beteiligungen 18. GmbH, Grünwald	100.0000
MR Beteiligungen AG, Grünwald	100.0000
MR Financial Group GmbH, Munich	100.0000
MR Forest GmbH, Munich	100.0000
MR Gotham LP, Dover, Delaware	100.0000
MR HealthTech Ltd., Nicosia	100.0000
MR Infrastructure Inc., Dover, Delaware	100.0000
MR RENT-Management GmbH, Munich	100.0000
MRSG UK Services Limited, London	100.0000

Company and registered seat	% share of capital
MU068 MR Placem (FCP), Paris[4]	100.0000
Münchener Consultora Internacional SRL, Santiago de Chile	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
Münchener Vermögensverwaltung GmbH, Munich	100.0000
Munich American Reassurance Company PAC Inc., Atlanta, Georgia[4]	0.0000
Munich Canada Systems Corporation, Toronto, Ontario	100.0000
Munich Management Pte. Ltd., Singapore	100.0000
Munich Re America Brokers Inc., Wilmington, 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 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, Munich	100.0000
PORT Schiffsverwaltungsgesellschaft mbH, Bramstedt	100.0000
PRORENDITA Drei Verwaltungsgesellschaft mbH, Hamburg	100.0000
PRORENDITA EINS Verwaltungsgesellschaft mbH, Hamburg	100.0000
PRORENDITA FÜNF Verwaltungsgesellschaft mbH, Hamburg	100.0000
PRORENDITA VIER Verwaltungsgesellschaft mbH, Hamburg	100.0000
PRORENDITA Zwei Verwaltungsgesellschaft mbH, Hamburg	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

Company and registered seat	% share of capital
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
Sydney Euro-Center Pty Ltd, Sydney	100.0000
TAS Touristik Assekuranz-Service GmbH, Frankfurt am Main	100.0000
TIERdirekt GmbH, Munich	75.0000
Tillobesta 180018 S.L., Valencia	100.0000
Triple IP B.V., Culemborg	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
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
Apollo Munich Health Insurance Co. Ltd., Hyderabad	48.4376
Arcapark SAS, Rueil Malmaison[5]	15.1000
Bazos CIV L.P., Dover, Delaware[7]	100.0000

Company and registered seat	% share of capital
Consorcio Internacional de Aseguradores de Crédito S.A., Madrid[5]	15.0353
Consortia Versicherungs-Beteiligungsgesellschaft mbH, Nuremberg	33.7027
D.A.S. Difesa Automobilistica Sinistri, S.p.A. di Assicurazione, Verona	49.9920
DAMAN – National Health Insurance Company, Abu Dhabi	20.0000
DIF Infra 5 UK Limited, London	37.5000
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
Global Aerospace Underwriting Managers Ltd., London[7]	51.0000
Group Health Group Holdings Inc., Surrey, British Columbia	40.0000
HDFC ERGO General Insurance Company Ltd., Mumbai	48.2308
Infra Foch Topco SAS, Puteaux[5]	10.7000
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
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
SEBA Beteiligungsgesellschaft mbH, Nuremberg	48.9966
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]	15.5000
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]	9.5000
carexpert Kfz-Sachverständigen GmbH, Walluf	25.0000
Fernkälte Geschäftsstadt Nord Gesellschaft bürgerlichen Rechts, Hamburg[1]	36.7671
Finsure Investments (Private) Limited, Harare	24.5000
GIG City Nord GmbH, Hamburg	20.0000
Hartford Research LLC, Lewes, Delaware	41.7500
IK Objektgesellschaft Frankfurt Theodor-Heuss-Allee GmbH & Co. KG, Düsseldorf	47.4000
Inshur Holdings Corp, Wilmington, Delaware[5]	14.7500
LCM Logistic Center Management GmbH, Hamburg	50.0000
PERILS AG, Zurich[5]	10.0000
SIP Social Impact Partners GmbH, Munich	50.0000
Spruce Holdings Inc., Wilmington, Delaware[5]	10.8500
Teko – Technisches Kontor für Versicherungen Gesellschaft mit beschränkter Haftung, Düsseldorf	30.0000
T-Solar Luxembourg GP S.à.r.l., Luxembourg	37.0000

Company and registered seat	% share of capital
vers.diagnose GmbH, Hanover	49.0000
Volksbanken-Versicherungsdienst GmbH, Vienna	25.2319
VV Immobilien Verwaltungs GmbH i.L., Munich	30.0000
VV Immobilien Verwaltungs und Beteiligungs GmbH, Munich	30.0000
We Predict Limited, Swansea[5]	13.5900
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: €70,927k; result for year: €239,148k)	10.2488
Extremus Versicherungs-Aktiengesellschaft, Cologne (equity: €64,058k; result for year: €118k)	16.0000
Protektor Lebensversicherungs-AG, Berlin (equity: €15,332k; result for year: €320k)	10.7631
Saudi Enaya Cooperative Insurance Company, Jeddah (equity: €13,315k; result for year: -€21,873k)	15.0000
Wataniya Insurance Company, Jeddah (equity: €56,895k; result for year: €4,867k)	10.0000
Other shareholdings as defined in Section 271(1) of the German Commercial Code (HGB)	
Autobahn Tank & Rast Gruppe GmbH & Co. KG, Bonn (equity: €372,238k; result for year: €1,062k)	9.9980
Autobahn Tank & Rast Management GmbH, Bonn (equity: €22k; result for year: −€3k)	10.0020
B3i Services AG, Zurich (equity: −€4,612k; result for year: −€12,086k)	3.1000
Babylon Holdings Limited, St. Helier, Jersey (equity: −€51,861k; result for year: −€72,517k)	0.2000
Bought by Many Limited "BBM", London (equity: €17,184k; result for year: −€6,837k)	9.1000
CBRE U.S. Core Partners Parallel Limited Partnership, Wilmington, Delaware[6] (equity: €30,285k; result for year: €2,535k)	99.9000
Craigmore Permanent Crop LP, Christchurch[6] (equity: €55,552k; result for year: −€3,486k)	44.1121
Deutsches Forschungszentrum für Künstliche Intelligenz GmbH, Kaiserslautern (equity: €21,206k; result for year: €2,610k)	2.5000
Fair Financial Corp., Wilmington, Delaware (equity: −€3,362k; result for year: −€85,358k)	1.0000
FIA Timber Partners II LP, Wilmington, Delaware[6] (equity: €127,412k; result for year: −€6k)	39.0800
Forge Global Inc., Wilmington, Delaware (equity: €30,424k; result for year: €1,399k)	4.3400
Fraugster Limited, London (equity: €8,091k; result for year: −€3,861k)	5.3300
Green Acre LLC, Wilmington, Delaware[6] (equity: €202,522k; result for year: €4,794k	31.9361
Hancock Timberland XII LP, Wilmington, Delaware (equity: €317,082k; result for year: −€1,309k)	15.1500
heal.capital I GmbH & Co. KG, Berlin[6] (equity: €74,000k; result for year: €0k)	22.2222
Helium Systems Inc., Dover, Delaware (equity: €6,545k; result for year: −€6,069k)	3.8000

Company and registered seat	% share of capital
Hines India Fund LP, Houston, Texas (equity: €42,024k; result for year: €1,357k)	11.8333
Hippo Analytics Inc., Wilmington, Delaware (equity: €60,647k; result for year: −€20,590k)	1.4300
IK Australia Property Eins GmbH & Co. KG, Hamburg (equity: €6,559k; result for year: €1,736k)	10.6438
IK Objekt Bensheim Immobilienfonds GmbH & Co. KG, Düsseldorf (equity: €18,620k; result for year: €971k)	16.2445
K & P Objekt München Hufelandstraße Immobilienfonds GmbH & Co. KG, Düsseldorf (equity: €3,209k; result for year: −€350k)	0.0489
M 31 Beteiligungsgesellschaft mbH & Co. Energie KG, Düsseldorf (equity: €1,089,427k; result for year: €71,210k)	18.6246
m:solarPOWER GmbH & Co. KG, Düsseldorf (equity: €450k; result for year: €170k)	0.0000
Next Insurance Inc., Wilmington, Delaware (equity: €81,360k; result for year: −€24,700k)	6.2900
Olivia Holdings LLC, Wilmington, Delaware (equity: €135,893k; result for year: €0k)	8.8000
Parametrix Group Holdings Inc., Wilmington, Delaware (equity: €6,846k; result for year: €0k)	5.0000
PRORENDITA DREI GmbH & Co. KG, Hamburg (equity: €3,971k; result for year: −€51k)	0.0260
PRORENDITA EINS GmbH & Co. KG, Hamburg (equity: €6,986k; result for year: −€232k)	0.0590
PRORENDITA FÜNF GmbH & Co. KG, Hamburg (equity: €12,808k; result for year: −€179k)	0.0384
PRORENDITA VIER GmbH & Co. KG, Hamburg (equity: €7,591k; result for year: €71k)	0.0029
Prorendita Zwei GmbH & Co. KG, Hamburg (equity: €4,381k; result for year: −€67k)	0.0100
Ridecell Inc., Wilmington, Delaware (equity: €20,247k; result for year: −€20,475k)	2.6000
RMS Australian Forests Fund I L.P., George Town, Grand Cayman[6] (equity: €72,029k; result for year: €19,321k)	37.4257
RMS Forest Growth International L.P., George Town, Grand Cayman[6] (equity: €87,634k; result for year: €6,488k)	43.4700
Slice Labs Inc., Ottawa, Ontario (equity: €13,653k; result for year: −€7,696k)	7.6300
Solarpark 1000 Jahre Fürth GmbH & Co. KG, Düsseldorf (equity: €703k; result for year: €128k)	0.9091
T&R MLP GmbH, Bonn (equity: €20k; result for year: −€3k)	10.0020
T&R Real Estate GmbH, Bonn (equity: €298,800k; result for year: €9,400k)	10.0020
Team8 Partners II L.P., George Town, Grand Cayman (equity: €5,014k; result for year: −€2,565k)	8.5300
Ticker Limited, London (equity: €3,604k; result for year: −€1,605k)	15.0000
Trov Inc., Dover, Delaware (equity: €10,805k; result for year: −€22,934k)	3.9800
Umspannwerk Hellberge GmbH & Co. KG, Zossen (equity: €0k; result for year: −€217k)	6.9000
welivit TOP SOLAR GmbH & Co. KG, Düsseldorf (equity: €72k; result for year: €55k)	0.0000
Zeguro Inc., Wilmington, Delaware (equity: €1,658k; result for year: −€1,419k)	3.5100

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 2019 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 2019 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, 6 March 2020.

The Board of Management

Independent auditor’s report

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 2019, and 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 to 31 December 2019, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report of Munich Re for the financial year from 1 January to 31 December 2019. In compliance with German legal requirements, we did not audit the contents of those parts of the combined management report mentioned in the “Other information” section of our auditor's report.

On pages 31, 33, 38 and 72, the combined management report contains cross-references to the Group’s website, which are not provided for by law. In compliance with German legal requirements, we did not audit the contents of these cross-references or the information to which they refer.

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 of 31 December 2019, and of its financial performance for the financial year from 1 January to 31 December 2019, 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 audit opinion of the combined management report does not cover the contents of those elements of the combined management report mentioned in the “Other information” section of our auditor's report. On pages 31, 33, 38 and 72, the combined management report contains cross-references to the Group’s website, which are not provided for by law. Our audit opinion does not cover these cross-references or the information to which they refer.

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 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 to 31 December 2019. 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.

Valuation of the provision for outstanding claims in property-casualty business

For information on the accounting and valuation policies used, please see the notes to the consolidated financial statements, on pages 120, and details about the estimates and assumptions used, on 107. Further information about the line items in the financial statements can be found on pages 151 ff. Risk information can be found on pages 167 ff. of the notes to the consolidated financial statements, and on pages 73 ff. of the combined management report.

The financial statement risk

The provision for outstanding claims at the reporting date was €50,696m in the property-casualty reinsurance segment and €4,779m in the property-casualty German primary insurance segment. In the ERGO International segment, a major part of the provision for outstanding claims of €2,868m refers to property-casualty business. Major losses from natural catastrophes had an impact of €2,053m on the Group in the financial year.

The provision for outstanding claims is reported on the basis of an expected value that is calculated on the basis of actuarial procedures and statistical methods. The expected value takes account of assumptions about premium, ultimate loss ratios, run-off periods, factors and speed of settlement that are based on past experience. Management bases the final amount of the provision for outstanding claims on the results of actuarial procedures and other information about calculating associated uncertainties. Major losses are viewed separately when measuring provisions.

Estimation of the provision for outstanding claims is subject to uncertainty and depends on the exercise of judgement. Uncertainties in estimation arise in particular from the occurrence, amount and speed of settlement of large claims, long-term claims development (especially in third-party liability) and in relation to the estimation of special loss scenarios, such as provisions for asbestos and environmental claims. With major losses in particular – such as for hurricane events – it can take a long time before all claims notifications are received from cedants. Where no adequate claims notifications are available, provisions for these major losses are estimated on the basis of internal analyses of market loss and the company's own losses on the basis of cover it has provided.

The notes to the financial statements must include extensive information about the provision for outstanding claims, including run-off triangles in particular.

Our audit approach

In auditing the provision for outstanding claims, we engaged actuaries as part of the audit team. In particular, we carried out the following key audit procedures:

- We assessed the process for setting aside provisions, identified key controls, and tested their design and effectiveness. The controls include the completeness and accuracy of the data used, and the qualitative and quantitative aspects of valuation.

- We requested explanations about how key assumptions were derived – including loss ratios and assumptions about run-off patterns – and assessed those assumptions.

- Substantive audit procedures on major losses were mainly made on the basis of selected specific items, whereby we drew conclusions about the appropriateness of key assumptions used on the basis of available external information.

- For selected Group entities, we carried out our own reserve calculations for certain segments based on our assessment of risk considerations. We determined a best estimate as well as an appropriate range based on statistical probabilities, and compared these with the Company's calculations.

- We assessed the level of reserves at the reporting date with that in previous years. We assessed the appropriateness of any adjustments made to expected values determined using actuarial methods by inspecting and critically assessing the documentation of the underlying calculations or qualitative grounds. We also made enquiries of each of the actuaries responsible.

- We assessed the appropriateness of provisions for asbestos and environmental claims on the basis of statistics and key figures.

- We assessed the actual development of the provision for outstanding claims set for the previous year on the basis of run-off results in order to draw conclusions about the reliability of the estimates.

- We assessed whether the disclosures in the notes, particularly the run-off triangles, were correctly derived from the accounting system and evaluated them for completeness

Our observations

The valuation process for the provision for outstanding claims in property-casualty business is appropriate, and the valuation assumptions applied, including those for major losses, were appropriately derived. The explanatory notes and disclosures in the notes to the consolidated financial statements are complete and appropriate.

Valuation of the provision for future policy benefits, the provision for outstanding claims, and deferred acquisition costs in life and health

With respect to the accounting policies, we refer to explanations in the notes to the consolidated financial statements, on page 119, and to the explanations about the use of estimates and assumptions, on page 107. Further information about the line items in the financial statements can be found on pages 143 and 151. Risk information can be found on pages 165 ff. of the notes to the consolidated financial statements, and on pages 73 ff. of the combined management report.

The financial statement risk

Provisions in life and health mainly comprise the provision for future policy benefits and the provision for outstanding claims. The provision for future policy benefits excluding unit-linked life insurance in the ERGO Life and Health Germany segment is €89,698m, and amounts to €12,607m in the life and health reinsurance segment. In ERGO International, most of the provision for future policy benefits of €9,641m is for life and health business. The provision for outstanding claims in the life and health reinsurance segment is €9,563m and amounts to €2,970m in ERGO Life and Health. The Group's deferred acquisition costs amount to €9,272m (net), and most of this refers to life and health business.

Valuation of the provision for future policy benefits is necessarily dependent on a number of assumptions. These refer in particular to discount rates, mortality and morbidity assumptions, acquisition and administration expenses, and calculated lapse rates. In accordance with applicable accounting regulations, these assumptions are determined at the start of a contract and are only adjusted if there is a significant deterioration. As the assumptions are generally not observable in the market, the determination or adjustment of these assumptions are subject to uncertainty and judgement.

In life and health reinsurance, the provision for outstanding claims is mainly accounted for on the basis of information from the cedant. In primary insurance, the provision for outstanding claims is mainly calculated on the basis of expected claims.

Deferred acquisition costs are amortised over the duration of the contracts. Depending on the type of contract, this is made proportionally to the premium or proportionally to the expected gross profit margins.

An annual liability adequacy test checks at the level of uniformly managed portfolios whether the balance from the aggregate policy reserves and the deferred acquisition costs is appropriate as a whole to satisfy the liabilities incurred. The test is based on expected future gross profit margins, calculated on the basis of current realistic actuarial assumptions, and is dependent on the same assumptions as the provision for future policy benefits. If the liability adequacy test should determine a deficit, acquisition costs will first be impaired. If a deficit still remains, the provision for future policy benefits will be increased.

With regard to the technical provisions in life and health business, disclosures in the notes must be taken into account (especially information about uncertainty of estimates and sensitivities).

Our audit approach

In auditing the provisions in life and health business, we engaged actuaries as part of the audit team. In particular, we carried out the following key audit procedures:

- We assessed the process for setting aside provisions and the valuation of deferred acquisition costs, identified key controls, and tested their design and effectiveness. Our particular focus was on controls to ensure that changes to assumptions were correctly implemented in the systems.

- We assessed the appropriateness of key assumptions by analysing the actuarial methods used to derive those assumptions. We placed particular emphasis on the reasonable and standard-compliant use of discount rates.

- We assessed the derivation and appropriateness of interest-rate assumptions used in calculating the provision for future policy benefits or in adequacy tests. For this purpose, we took account of relevant data from the capital markets.

- We compared forecast and actual results of individual operating entities with market developments, thus deriving assessments about the reliability of the estimates.

- We analysed development of the provisions for future policy benefits and deferred acquisition costs compared to the previous year, and made an assessment taking into account current business developments and our expectations from market observations.

- We then assessed whether the accounting policies and methods used in the adequacy test were properly applied. Where market interest rates were used for valuation, we checked the adequacy of discount rates used by making a comparison with inputs observable in the market.

- In German life primary insurance, we independently determined the provision for future policy benefits on the basis of a random selection of tariffs, and compared our results with those of the Company.

- We assessed whether impairment of acquisition costs and reserve increases in the ERGO Life and Health Germany and ERGO International segments triggered by the liability adequacy test were correct.

- We valued provisions for outstanding claims that had been valued using statistical processes in various segments using our own methods, and compared our results with those of the Company.

- We checked whether the disclosures in the notes correspond with accounting standards, and paid particular attention to whether uncertainty about estimates and sensitivities had been adequately shown.

Our observations
The valuation method used for the provision for future policy benefits, the provision for outstanding claims in life and health, and deferred acquisition costs in life and health is appropriate. The valuation assumptions used were derived appropriately. The explanatory notes and disclosures in the notes to the consolidated financial statements are complete and appropriate.

Valuation of investments

With respect to the accounting policies, we refer to explanations in the notes to the consolidated financial statements, on pages 115 ff., and to the explanations about the use of estimates and assumptions, on page 107. We also refer to the notes on the valuation hierarchy on pages 132 ff., and on the individual instruments on pages 138 ff. Information about market risk and credit risk can be found in the combined management report on pages 77 ff.

The financial statement risk
The carrying amount of total investments was €228,764m, and the fair value was €231,876m.

The valuation of investments whose fair values are determined on the basis of valuation models or values assessed by third parties is subject to uncertainty. Measurement carried out on the basis of valuation methods that use inputs observable in the market particularly affects non-listed securities, infrastructure loans, other loans, and derivatives. The greater the number of input factors used that are not observable in the market but are based on internal estimates, the greater the scope for discretion. Judgement is especially necessary in measuring land and buildings, real estate funds, private equity funds, and investments in affiliated companies and associates. The fair value of investments determined on the basis of valuation models or values assessed by third parties is allocated to valuation categories Level 2 and Level 3 of the fair value hierarchy of IFRS 13.

Comprehensive disclosures regarding valuation methods and scope of judgement are required to be made in the notes in connection with the valuation of investments.

Our audit approach
Our audit of the investments essentially comprised the following procedures:

- We assessed the adequacy of the internal controls set up for the valuation process and are convinced of their effectiveness after carrying out functional tests. Our focus was on controls on the use of market inputs and quality assurance.

- For investments measured by means of a valuation model, we assessed the adequacy of the respective model and of the methods used to determine the assumptions and inputs underlying the valuation for a risk-based sample.

- For parts of direct and indirect real estate investments, private equity funds, and risk-based samples of unlisted loans, structured products and derivatives, we checked the fair values determined by Munich Re based on our own valuations or by making comparisons with external information.

- Revaluations for unlisted securities and derivatives were carried out using our own valuation software and inputs derived from market data to compute our own fair values. The comparison with Munich Re's fair values took account of an expected range that was determined depending on the type of financial instrument involved.

- On the basis of the fair values determined by Munich Re, we have ascertained that the subsequent accounting measurement and the impact on profit or loss are correct. In this context, we assessed whether write-ups and write-downs were appropriate and whether the result from the fair value measurement and disposals of derivatives was appropriately determined.

- We reviewed the disclosures in the notes to the financial statements to determine whether they comply with accounting standards and, in particular, whether the accounting policies are presented appropriately.

Our observations
The methods used to calculate the fair values of investments are appropriate. The valuation assumptions are reasonable. Subsequent accounting measurements and determination of the impact on profit or loss are appropriate. The explanatory notes and disclosures in the notes to the consolidated financial statements are complete and appropriate.

Other information
Management and/or the Supervisory Board is responsible for the other information. The other information comprises the following parts of the combined management report, the contents of which were not audited:

- the Statement on Corporate Governance, which is contained in the section "Statement on Corporate Governance pursuant to Section 289f and Section 315d of the German Commercial Code (HGB) including corporate governance reporting" of the combined management report, and

- the combined non-financial statement, to which the combined management report refers.

The other information also includes the remaining parts of the Annual Report. The other information mentioned above does not include the consolidated financial statements and the audited contents of the combined management report, or our accompanying 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 audited contents of the combined management report, or with our knowledge obtained in the audit, or

- otherwise appears to be materially misstated.

If, based on the work we have performed, we come to the conclusion 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 judgement and maintain professional scepticism throughout the audit. We also:

- 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, the 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 of the matter.

Other legal and regulatory requirements

Further information pursuant to Article 10 of the EU Audit Regulation

We were selected as Group auditor by the Supervisory Board on 19 March 2019. We were engaged by the Chair of the Audit Committee of the Supervisory Board on 19 July 2019. We have been the Group auditor of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München, Munich, for more than 25 consecutive years.

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. Frank Ellenbürger.

Munich, 6 March 2020

KPMG Bayerische Treuhandgesellschaft
Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft
Steuerberatungsgesellschaft

Dr. Ellenbürger	**Voß**
Wirtschaftsprüfer	Wirtschaftsprüferin
(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 Rück-versicherungs-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, 17 March 2020

Imprint/Service

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Registered office: Munich, Germany

Commercial Register Munich, No. HRB 42039

Online publication date:
18 March 2020

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

Andreas Pohlmann

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

		31.12.2019	30.9.2019	30.6.2019	31.3.2019
Balance sheet					
Investments (incl. insurance-related investments)	€m	237,927	241,980	235,270	232,547
Equity	€m	30,576	31,578	29,543	28,990
Net technical provisions	€m	217,941	219,289	214,231	214,572
Balance sheet total	€m	287,553	291,741	282,603	280,137
Shares					
Share price	€	263.00	237.40	220.70	211.00
Munich Reinsurance Company's market capitalisation	€bn	38.0	34.3	31.9	31.6
Other					
Combined ratio					
Reinsurance property-casualty	%	112.5	104.7	87.7	97.9
ERGO Property-casualty Germany	%	93.2	92.1	86.2	98.1
ERGO International	%	94.8	91.8	95.0	95.4
Number of staff		**39,662**	**39,661**	**39,869**	**40,722**

€m	Total	Q4 2019	Q3 2019	Q2 2019	Q1 2019
Gross premiums written	**51,457**	**12,540**	**13,743**	**11,799**	**13,375**
1. Earned premiums					
Gross	50,873	13,188	12,964	12,332	12,389
Ceded	–2,594	–674	–677	–486	–757
Net	48,280	12,515	12,287	11,846	11,632
2. Income from technical interest	6,729	1,477	1,753	1,549	1,950
3. Expenses for claims and benefits					
Gross	–41,058	–10,910	–10,711	–9,118	–10,318
Ceded share	1,373	448	391	130	404
Net	–39,685	–10,462	–10,321	–8,988	–9,914
4. Operating expenses					
Gross	–13,809	–3,911	–3,354	–3,349	–3,195
Ceded share	560	157	126	141	136
Net	–13,249	–3,754	–3,229	–3,208	–3,059
5. Technical result (1–4)	**2,074**	**–225**	**491**	**1,199**	**609**
6. Investment result	**7,737**	**1,965**	**2,131**	**1,900**	**1,741**
Thereof: Associates and joint ventures accounted for using the equity method	207	93	35	32	47
7. Insurance-related investment result	1,176	292	206	125	553
8. Other operating income	1,093	481	219	205	187
9. Other operating expenses	–1,347	–456	–314	–312	–265
10. Deduction of income from technical interest	–6,729	–1,477	–1,753	–1,549	–1,950
11. Non-technical result (6–10)	**1,930**	**805**	**489**	**370**	**265**
12. Operating result	**4,004**	**580**	**980**	**1,569**	**875**
13. Other non-operating result	–665	–193	–146	–204	–122
14. Currency result	73	–241	228	27	58
15. Net finance costs	–222	–56	–55	–55	–56
16. Taxes on income	–483	127	–143	–344	–122
17. Consolidated result	**2,707**	**217**	**865**	**993**	**633**
Thereof:					
Attributable to Munich Reinsurance Company equity holders	2,724	216	884	993	632
Attributable to non-controlling interests	–17	1	–19	1	0

€	Gesamt	Q4 2019	Q3 2019	Q2 2019	Q1 2019
Earnings per share	**18.97**	**1.52**	**6.17**	**6.88**	**4.35**

Important dates 2020

28 February 2020
Balance sheet media conference for 2019 consolidated financial statements (preliminary figures)

18 March 2020
Publication of the Group Annual Report 2019

29 April 2020
Annual General Meeting

7 May 2020
Quarterly Statement as at 31 March 2020

6 August 2020
Half-Year Financial Report as at 30 June 2020

5 November 2020
Quarterly Statement as at 30 September 2020

Important dates 2021

25 February 2021
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