Group Annual Report 2021
Munich Re

Munich RE

Key figures (IFRS)[1]

Munich Re at a glance

		2021	2020	2019	2018	2017
Gross premiums written	€m	59,567	54,890	51,457	49,064	49,115
Net earned premiums	€m	55,202	51,223	48,280	45,735	47,164
Net expenses for claims and benefits	€m	–45,383	–43,077	–39,685	–35,116	–41,645
Net operating expenses	€m	–13,674	–12,815	–13,056	–12,587	–12,186
Operating result	€m	3,517	1,986	3,430	3,725	1,241
Taxes on income	€m	–552	–269	–483	–576	298
Consolidated result	€m	2,932	1,211	2,707	2,275	392
Attributable to non-controlling interests	€m	–1	0	–17	–34	17
Earnings per share	€	20.93	8.63	18.97	15.53	2.44
Return on equity (RoE)[2]	%	12.6	5.3	11.7	8.4	1.3
Return on investments (RoI)	%	2.8	3.0	3.2	2.8	3.2
Dividend per share[3]	€	11.00	9.80	9.80	9.25	8.60
Dividend payout[3]	€m	1,541	1,373	1,373	1,335	1,286
Share price at 31 December	€	260.50	242.80	263.00	190.55	180.75
Munich Reinsurance Company's market capitalisation at 31 December	€bn	36.5	34.0	38.0	28.5	28.0
Carrying amount per share	€	220.06	213.38	215.32	180.86	185.19
Investments	€m	240,300	232,950	228,764	216,852	217,562
Insurance-related investments	€m	12,283	11,033	9,163	8,424	9,664
Equity	€m	30,945	29,994	30,576	26,500	28,198
Off-balance-sheet unrealised gains and losses[4]	€m	18,888	21,298	19,913	16,067	14,980
Net technical provisions	€m	234,044	221,480	217,941	208,270	205,754
Balance sheet total	€m	312,405	297,946	287,553	270,168	265,722
Staff at 31 December		39,281	39,642	39,662	41,410	42,410

Reinsurance

		2021	2020	2019	2018	2017
Gross premiums written	€m	41,354	37,321	33,807	31,286	31,569
Investments (incl. insurance-related investments)	€m	103,226	94,631	92,429	85,605	85,804
Net technical provisions	€m	89,461	78,190	77,166	72,407	68,109
Major losses (net)	€m	–4,304	–4,689	–3,124	–2,152	–4,314
Natural catastrophe losses	€m	–3,139	–906	–2,053	–1,256	–3,678
Combined ratio property-casualty	%	99.6	105.6	100.2	99.4	114.1
Investment result	€m	3,422	3,193	3,318	2,543	2,760
Consolidated result	€m	2,328	694	2,268	1,864	120
Thereof: Reinsurance – Life and health	€m	325	123	706	729	596
Thereof: Reinsurance – Property-casualty	€m	2,003	571	1,562	1,135	–476
Return on equity (RoE)[5]	%	13.5	4.1	13.3		

ERGO

		2021	2020	2019	2018	2017
Gross premiums written	€m	18,213	17,569	17,650	17,778	17,546
Investments (incl. insurance-related investments)	€m	149,357	149,352	145,497	139,671	141,422
Net technical provisions	€m	144,583	143,290	140,776	135,863	137,645
Combined ratio property-casualty Germany	%	92.4	92.4	92.3	96.0	97.5
Combined ratio International	%	92.9	92.7	94.3	94.6	95.3
Investment result	€m	3,734	4,206	4,504	3,983	4,851
Consolidated result	€m	605	517	440	412	273
Thereof: Life and Health Germany	€m	164	130	187	264	175
Thereof: Property-casualty Germany	€m	234	157	148	45	57
Thereof: International	€m	207	230	105	103	40
Return on equity (RoE)[5]	%	10.1	8.8	7.4		

1 You can download this information as an Excel file; please refer to the Financial Supplement under www.munichre.com/results-reports
2 We changed the calculation of RoE in 2020. The figure for 2019 was adjusted accordingly. Comparability with the years 2018 and 2017 is thus limited. Further information about this indicator can be found in the combined management report in the sections "Strategy" and "Tools of corporate management and strategic financial objectives". Information about the calculation of RoE can be found in the Notes to the consolidated financial statements, in the section entitled "Segment reporting, Notes on determining the return on equity (RoE)".
3 Subject to approval by the Annual General Meeting.
4 Including those apportionable to minority interests and policyholders.
5 Since the publication of our Ambition 2025 in December 2020, RoE has now become a target figure for our fields of business. Further information about this indicator can be found in the combined management report in the sections "Strategy" and "Tools of corporate management and strategic financial objectives". Information about the calculation of RoE can be found in the Notes to the consolidated financial statements, in the section entitled "Segment reporting, Notes on determining the return on equity (RoE)". We do not report this indicator for the years 2018 and 2017.

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

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

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

Dear shareholders,

We kicked off our Ambition 2025 strategy last year. In posting an annual result of €2.9bn, we surpassed our 2021 profit target of €2.8bn, thus laying the foundation for realising our bold objectives.

With regard to earnings per share, our goal was to match the normalised result from 2020 in 2021 – but in fact, it grew by 4.7%. Accordingly, we are already close to our goal of increasing it by an average of at least 5% annually by 2025. In addition, we are fully on track to meet our commitment of generating a return on equity (RoE) between 12 and 14% by 2025; our RoE in 2021 was 12.6%. Munich Re's capital strength is reflected in our solvency ratio, which was 227% at the end of last year – placing it slightly above our target range.

As Munich Re shareholders, you benefit from this solid business performance. Between 2018 and 2021, our total shareholder return was outstanding among the leading eight global reinsurers and European primary insurers. In line with our sustained corporate success, we are fulfilling our Ambition 2025 pledge to increase our dividend. We are proposing that the Annual General Meeting approve a dividend of €11 per share – an increase of 12.2% year on year. In addition, we have now approved a new share buy-back. An attractive dividend policy remains one of Munich Re's hallmarks.

In short, Munich Re has kept its word despite difficult circumstances.

In addition to a challenging economic environment, persistently low interest rates, and rapidly rising inflation, there were major losses in 2021. As in previous years, natural catastrophes unleashed devastating losses around the world. And the coronavirus pandemic again developed an unexpected dynamic. Moreover, the number and intensity of cyber attacks are rising considerably.

Natural catastrophes caused US$ 280bn in worldwide losses last year. At US$ 120bn in insured losses, the 2021 figure is second only to the record year of 2017. The extreme flash flooding in Germany and other European countries alone resulted in losses of US$ 54bn, of which US$ 13bn were insured. This is Germany's and Europe's costliest natural disaster ever – and only one of last year's many severe weather events, which are becoming more frequent and more severe due to climate change.

In 2021, the pandemic likewise resulted in higher claims expenses, particularly in our life and health reinsurance and, to a minor extent, in property-casualty reinsurance. The overall expenditure due to COVID-19 amounted to around €1bn in 2021, €785m of which was attributable to the life and health segment.

Last but not least, there was a considerable spike in cyber crime last year. Various research companies estimate that cyber incidents have caused global financial losses totalling trillions, of which merely a very small fraction is currently insured. The awareness of cyber risks has been heightened by unsettling events, such as the ransomware attack on the Colonial Pipeline Company in the United States in May 2021 and the recent discovery of the Log4j security vulnerability.

We met our profit target in spite of all these challenges, which underlines anew just how robust and resilient our Group is. Once more, our risk portfolio, our range of business lines and our risk management proved their worth in 2021. All fields of business showed strong operational performance, in turn further fuelling the positive business momentum.

The ERGO field of business was once again able to boost its result contribution, thanks to focused business expansion and strict cost discipline. Better still, ERGO clearly surpassed its annual target by generating a result of around €600m. In the Property-casualty Germany segment, a successful renewal round in motor insurance and an expansion of commercial/industrial business played key roles in spurring premium growth. ERGO Life and Health Germany also contributed to growth through its new capital-efficient and biometric life products, good performance in supplementary health covers and the recovery in travel insurance business. In addition, the "hybrid customer" business model in particular paid off during the pandemic, while further enhancing the productivity of sales agents. In international business and elsewhere, ERGO substantially increased gross premium income in 2021, primarily attributable to strong growth in property-casualty business in Poland and Austria and high demand for health products in Spain and Belgium. Going forward, ERGO will continue to earn higher premiums and more income, while increasingly relying on digital solutions.

Munich Reinsurance Company benefited particularly from rate increases in property-casualty reinsurance. Our renewals in 2021 generated premium growth of 11.7%, and prices rose by 2.3%. The renewal results for January 2022 make it clear that this trend will continue this year and we will continue to expand profitably. We similarly managed to firmly consolidate our less cyclical Risk Solutions business (+18%) thanks to an impressive product portfolio. And we are tapping into new opportunities – especially in digital business through, for example, our subsidiary Munich Re New Ventures (MRNV). Founded to exploit untapped potential in our industry, MRNV has since become an incubator for cutting-edge technology, sales channels and product offerings for Munich Re clients and partners. MRNV's acquisition in 2021 of GroupHEALTH, one of Canada's largest administrators of group policies, grants us broader access to a market with an attractive risk-return profile. This is just one instance of our astute strategy for expanding our business.

In asset management, we achieved a very good return on investment of 2.8%, persistently low interest rates notwithstanding. Alternative types of investment – in infrastructure, for example – merit particular emphasis, as they account for an increasing share of results. We intend to further intensify our alternative investments. Environmental criteria are also increasingly important. MEAG, for instance, has invested in the expansion of emission-free wind power in Sweden and Finland. It has also added to its forestry portfolio by purchasing forests in the United States and New Zealand. Compared to the volume in 2019, our investments in renewable energies are poised to double by 2025 to some €3bn.

Following the first year of Ambition 2025, Munich Re is in an outstanding position to achieve its stated objectives over the next four years. To this end, we will continue tapping into the hardening reinsurance market for profitable growth. Our future earnings will increasingly become less volatile thanks to the sustainably improving performance of ERGO, growth in life and health reinsurance, and growth in our specialty insurance – particularly in the United States. Our strong return on investment is also part of the pleasing big picture.

Beyond the optimisation of economic key performance indicators, our Ambition 2025 also embodies our commitment to creating long-term value for our shareholders, clients, staff, and society as a whole. Doing so entails steady dedication to environmental, social and governance (ESG) issues in all of our Group's spheres of influence.

In order to emphasise the strategic importance of ESG for Munich Re and to consolidate ESG management, an ESG Committee was created at Board of Management level in mid-2021. This committee works closely with an interdisciplinary team of top-notch ESG managers who ensure that all of our ESG objectives are met throughout the Group.

A key aspect of our ESG pursuits is climate protection. We focus here, for example, on acting to reduce CO_2 emissions. In line with stringent CO_2 requirements, we do not (re)insure operations that will not adapt over time, starting with coal – now, not in the distant future. We have undertaken to meet our first reduction targets by 2025. To this end, we set up the requisite frameworks last year, including mandatory underwriting guidelines for coal, oil and natural gas in accordance with our climate strategy.

We also regard ourselves as a driving force in the energy transition. Munich Re provides risk transfer solutions that promote the growth of established and proven as well as new green technologies. By assuming guarantee or availability risks, we help the renewable energy sector to attract investors and grow their business. Our Green Tech Solutions unit has already enabled us to underwrite risks in over 1,000 projects worldwide, with generation capacity totalling about 42 gigawatts. That is more than two thirds of the capacity of all photovoltaic systems operating in Germany.

Our issuance last year of another green bond reaffirmed our mission of helping to propel the economy towards a climate-neutral future. Munich Re will use the capital thus raised to finance projects devoted to energy efficiency, sustainable transport, green buildings, the circular economy, etc. Our first green bond, issued in 2020, generated €1.3bn in proceeds – all of which we have since invested in eight sustainable projects.

Only fast, resolute action will protect our climate; the private and public sectors must both pitch in. At the Climate Change Conference (COP26) in Glasgow in November 2021, Munich Re once again highlighted the urgency of all that must be done to tackle the climate crisis. We made specific suggestions at COP26 on how to address the challenges. First, the number and reach of public-private partnerships must increase so as to help poorer countries in particular deal with the consequences of climate change. Second, a sufficiently high CO_2 price – more than US$ 100 per tonne by 2030 – should incentivise the use of climate-friendly technologies. Third, annual investments in renewable energies for power generation must be quadrupled by 2030. Fourth, the promotion and use of technologies that remove CO_2 from the atmosphere is essential. And fifth, it is incumbent on governments to pivot away from settling for sub-targets towards defining coherent, all-encompassing projects that put into practice the above-mentioned action items and further climate-protection measures.

Beyond our commitment to greater climate protection, we pledged in our Ambition 2025 to improve gender diversity throughout the Munich Re Group. We aim to increase the percentage of women in management positions from 35% in 2020 to 40% by 2025. Because senior managers are appointed by Board members throughout the Group and because we are deliberately fostering a diverse and inclusive corporate culture, the percentage of women managers rose to about 38% last year.

All in all, Ambition 2025 guides our Group along the path of fully realising the potential for growth and value creation. In 2021, we took several big steps forward on this path. Please rest assured that we will not slow down in 2022. On the contrary, we will spare no effort translating our Ambition into success. On behalf of more than 39,000 staff members worldwide, I wish to thank you for the trust you place in our Group.

Yours sincerely,

Joachim Wenning

Combined management report

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

Strategy

Munich Re operates an integrated business model that combines primary insurance and reinsurance. This model enables us to pool our industry-wide areas of expertise, share underlying know-how and data, and leverage synergies through risk diversification.

At the core of our business model, Munich Re is the risk carrier along the entire insurance value chain. We are happy to expand our primary insurance activities and have a strategic interest in new business models. We prefer organic growth, but will engage in selected M&A activities in line with our strategic preferences. Our active, integrated capital management and risk management across the Group helps to create economic value for our shareholders, while safeguarding the fulfilment of our obligations towards clients and policyholders as well as protecting the reputation of Munich Re.

Our strategy follows the three guiding principles of Scale, Shape, and Succeed, which are key pillars of the Munich Re Group Ambition 2025.

Scale

Scale represents growth in the Group's core business. There are opportunities for organic growth in reinsurance in particular owing to recent improvements in market conditions. In asset management, we want to boost our performance and reduce the yield erosion caused by low interest rates.

Shape

Shape stands for Munich Re's mission to develop new business models throughout the value chain, in turn shaping markets. In this environment, innovative and digital solutions will give rise to additional business opportunities.

Succeed

Succeed symbolises the added value that Munich Re generates for all its stakeholders. For shareholders, this means the sustained financial success of their investments in Munich Re. Clients benefit from bespoke products. And for staff, Succeed connotes appealing long-term employment and good career prospects. A particular priority concerns women in management: by 2025, 40% of managers below the Board of Management are to be women. Last but not least, Succeed allows communities to benefit from, in particular, the Group's ambitious climate protection targets in its asset management, in the (re)insurance business and in its own business operations.

The success of the Munich Re Group Ambition 2025 will be measured using the following financial and non-financial targets:

Our pledge to shareholders

Improved RoE, 2025	EPS growth[1]	DPS growth[1, 2]	Solvency II ratio in optimal range
12–14%	≥ 5%	≥ 5%	175–220%
Decarbonisation targets for thermal coal, oil and natural gas			

1 Average annual growth rate 2020–2025 (earnings per share for 2020 as base year, per calculation of a normalised profit of €2.8bn; adjustment of +€1.6bn for COVID-19 and other factors).
2 In addition: dividend floor of at least previous year's DPS.

We want to generate an attractive return on equity (RoE)[1] between 12% and 14% by 2025. That would establish Munich Re as one of the best in its peer group. RoE increases will result from higher profitability, growth, and RoI performance that counteracts the erosion of regular investment income caused by low interest rates.

Continued earnings growth is poised to translate into higher earnings per share, with a targeted average annual rise of 5% or more by 2025.

The implicit dividend commitment of recent decades is now an explicit target of the Munich Re Group Ambition 2025: In "normal" years, the dividend per share is to rise by 5% or more on average, similarly to the increase in earnings per share. In years with unusually high claims expenditure, it is expected that the dividend per share will at least remain the same.

The solvency ratio is to remain in the optimum range of 175–220%.

As an environmentally conscientious business, Munich Re will play its part in meeting the targets of the Paris Climate Agreement. The Group has therefore set itself ambitious climate protection targets for its investments, its (re)insurance transactions and its own business operations:

1 Further information about this indicator is provided in the combined management report in the section entitled "Tools of corporate management and strategic financial objectives".

Munich Re Group Ambition 2025 and beyond

	Investments		Insurance		Own emissions
Today	**Investments** Financed CO_2 emissions		**Insurance** “Insured CO_2 emissions” (primary insurance, direct, facultative)		**Own emissions** from operational processes
	No investment in companies with > 30% revenue from thermal coal[1] > 10% revenue from oil sands[1]		**Thermal coal** No insurance for new coal mines or power plants, including infrastructure[1, 3, 5]	**Oil and natural gas (exploration/ production)** No insurance for new or existing oil sand sites, including infrastructure[1, 5]	**Reducing our direct impact** Significant reduction in Group emissions since 2009[1]
2025	**Total[2]:** Thermal coal[2]: Oil and natural gas[2]:	**–25% to –29% emissions** **–35% emissions** **–25% emissions**	**–35% emissions[4]**	**–5% emissions** Utilising the expertise of HSB Solomon	**–12% emissions** per employee of the Munich Re Group
2050	**Total:** Thermal coal:	**Net zero** by 2050 **Full exit** by 2040	**Full exit** by 2040	**Net-zero emissions** by 2050	**Net-zero emissions** by 2030

Leading with high and credible ESG[6] standards

1 Our external auditor examined this information in the course of performing a limited assurance engagement on the non-financial statement.
2 Based on sub-portfolio of equities, corporate bonds and real estate at the end of 2019.
3 Minor exceptions may apply such as sites in countries with <90% electrification rate.
4 “Metric tons of thermal coal produced annually by insureds/Installed operational capacity (megawatts) of the insureds’ coal-fired power plants” as a basis for an approximate extrapolation of our clients’ business-related CO_2 emissions (base year 2019).
5 For details on the scope of application, please see the section “Insurance” of our combined non-financial statement.
6 This abbreviation stands for environmental, social, governance.

More specifically, net greenhouse gas emissions in our investment portfolio will be reduced by 25% to 29% by 2025, before being brought down to zero by 2050. Munich Re has already ceased to invest in companies that generate more than 30% of their earnings from thermal coal or by extracting oil from oil sands. As for the exploration and production of oil and natural gas (direct and facultative business), Munich Re will be reducing its climate-related industry exposure in such a way that there will be no attributable net CO_2 emissions by 2050. In an initial phase, we aim to reduce carbon emissions by 5% by 2025. At the same time, Munich Re will be reducing its coal-related exposure in its direct and facultative insurance business by 35% worldwide by 2025, before eliminating this exposure altogether by 2040. Munich Re has already stopped insuring new coal-fired power plants, coal mines, and oil sands mines.

In addition, our own business operations have achieved considerable carbon emissions savings since 2009. Current CO_2 emissions are to be reduced by a further 12% per employee by 2025. Five years later, by 2030, the Group expects to achieve net-zero CO_2 emissions in its business operations.

Reinsurance

Munich Re’s strategic aim is to expand its position as a leading global reinsurer and, by means of Risk Solutions, to further consolidate our success in primary insurance business through our special underwriting expertise.

Our reinsurance strategy likewise relies on the three pillars of Scale, Shape, Succeed – which define measures for achieving overarching objectives.

In traditional reinsurance, Munich Re is participating in the marked expansion of significant markets. Growth areas in our core business include the expansion of the market position in developed markets in North America, Europe, Asia and Australia – with a focus on risk expertise and underwriting quality. In the emerging markets of Asia, the Middle East and South America, Munich Re focuses on targeted growth through service provision for cedants.

Risk Solutions, on the other hand, focuses on business model-specific, large-scale growth initiatives in Anglo-Saxon markets and on niche business in or near the reinsurance core business. In this context, knowledge-driven business models are preferred to primarily process-driven business. Sales are conducted directly, via brokers, and via managing general agents (MGAs). In addition to industrial clients, our clientele includes large and small commercial enterprises – and private individuals in some fields of business.

Munich Re’s long-term competitiveness is particularly sustained by excellence in operations, the development of new product solutions, and the pursuit of new strategic options in our business activities.

The focus of the excellence initiatives is on first-class underwriting and risk management at the highest level, practised client orientation and outstanding client management, agile and efficient processes, and the exploitation of synergies within the Group – both in partnerships in product and market development, and in the use of service functions.

Both traditional reinsurance and Risk Solutions are constantly defining new fields and solutions to further develop the business. For example, Munich Re is driving forward product innovations for cyber, flooding, parametric covers, credit insurance and financially motivated reinsurance by offering data-driven solutions and services under third-party brands, alongside its own reinsurance covers.

With systematic innovation and start-up activities focusing on specific fields, Munich Re endeavours to safeguard and expand its primary insurance and reinsurance activities, and to create entirely new business fields and models in and beyond the insurance value chain. Munich Re has defined the following five areas of focus in innovation:

- Business models that prioritise digitalisation and technological advancement in the insurance industry (insurtech)
- Internet of Things (IoT) applications and services
- Cyber insurance and related services
- Climate and energy
- Mobility solutions

Munich Re's portfolio of key innovation areas in reinsurance is regularly reviewed, and adapted or expanded in line with trends and developments. Two examples of this are crypto technologies and artificial intelligence (AI) as the foundation for new business models.

Along with investing in innovation and digitalisation projects, the reinsurance field of business also operates as a venture capitalist. Beyond the objective of generating especially profitable returns on investment, the reinsurance field of business deploys venture capital to ensure the closest possible proximity to new technologies and emerging business models. The investment categories, which mirror the key areas of innovation, are closely interlinked in terms of structure and organisation.

ERGO

ERGO's strategic aim is to continue growing profitably through 2025 and, as regards return on equity (RoE), to become one of the top primary insurers in Europe. To this end, ERGO's portfolio of strategic measures likewise relies on the three pillars of Scale – Shape – Succeed, which define steps for achieving overarching objectives.

One of ERGO's aims is to further improve its market position and profitability in Germany, with a focus on further developing its underwriting capabilities and resolutely driving forward end-to-end process excellence, while reducing IT, sales and operating costs. In international business, ERGO concentrates on Europe and Asia, where high-growth markets such as India and China offer particularly promising opportunities. Digital Ventures puts a clear focus on generating strong growth both with partners in multi-level sales (B2B2C) and through purely direct offers from digital insurers like nexible.

The ever-increasing changes in markets caused by digital transformation and new patterns of customer behaviour demand flexibility in both services and products. In this context, ERGO is focusing consistently on the needs of its customers, who are increasingly using traditional and digital channels in parallel when seeking advice and purchasing insurance products.

The ongoing modernisation of IT infrastructures continues to play a key role here. In addition, ERGO is seeking a leading role in digitalisation by consistently driving forward robotics, AI and voice technology, with an eye to continually enhancing customer experience. ERGO aims at further increasing its competitive strength by transferring technology-based solutions and enhancing cross-border synergies. ERGO will continue to rely on external and internal resources in generating innovative business ideas to further expand the business model along the entire insurance value chain and unlock growth potential in the digital world. There will be a particular emphasis on creating and expanding ecosystems – in mobility and travel, for example.

Tools of corporate management and strategic financial objectives

Munich Re's management philosophy – Based on value creation

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

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

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

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

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

The Group's corporate management tools

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

The Group's corporate management tools

Economic earnings

IFRS consolidated result

Other performance indicators
- Gross premiums written
- Combined ratio
- Technical result in life and health reinsurance including the result from insurance contracts with non-significant risk transfer
- Return on investment (RoI)

Economic earnings

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

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

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

IFRS consolidated result

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

Other performance indicators

Gross premiums written

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

Combined ratio

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

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

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

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

Return on investment (RoI)

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

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

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

Strategic financial objectives as part of the Munich Re Group Ambition 2025

Munich Re publishes further performance indicators within the framework of its multi-year result ambition. Given the longer time horizon of several years and the greater uncertainties related to this, the result targets published for these performance indicators take the form of anticipated corridors or minimum targets only. You can find details of the objectives for the key indicators given here for the Munich Re Group Ambition 2025 in the "Strategy" chapter.

Strategic financial objectives as part of the Munich Re Group Ambition 2025

- Return on equity (RoE)
- Earnings per share
- Dividend per share
- Solvency ratio under Solvency II

Return on equity (RoE)

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

Earnings per share

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

Dividend per share

The dividend per share reflects the dividends paid for one year in relation to the number of dividend-bearing shares. The number of shares can change as a result of share buy-backs or other capital measures.

Solvency ratio under Solvency II

The solvency ratio under Solvency II is the ratio of the eligible own funds to the solvency capital requirement. Information on solvency capital requirements and eligible own funds is available in the risk report.

Macroeconomic and industry environment

In the reporting year, the global economy continued to recover from the recession sparked by the coronavirus pandemic in 2020. Although global business activity rebounded to its pre-crisis level, new waves of infections, more stringent containment measures, and supply bottlenecks hindered economic growth. The recovery was supported by extensive stimulus packages, particularly in the USA. The inflation rate rose in many industrialised countries, and on average for the year lay far above the long-term average in both the USA and Germany. In addition to rising commodity and energy prices, this was due to basic underlying effects, particularly the unusually low price pressure in the previous year.

Capital markets

In 2021, as in the year before, many central banks continued to deploy far-reaching measures in an effort to facilitate favourable financing conditions and promote economic recovery. The Federal Reserve in the United States maintained its policy rate corridor of 0% to 0.25%, and the European Central Bank similarly kept its interest rate for main refinancing operations at 0%. Both the Fed and the ECB carried on with their large-scale bond-buying programmes. However, from November the Fed began gradually reducing its monthly volume of bond-buying, while the ECB announced in December that it would reduce its own purchases in the first quarter of 2022. Yields on ten-year government bonds in the United States and Germany initially continued their upward trend, which had begun in late 2020, driven by a recovering global economy and rising inflation rates. However, over the course of the year, the resurgence of the pandemic and a deteriorating growth outlook served to hamper further growth in yields. At the end of December 2021, yields on US bonds were still at a low level compared to the previous several years. In addition, yields on ten-year German government bonds remained in negative territory.

Yields on ten-year government bonds

%	31.12.2021	31.12.2020
USA	1.5	0.9
Germany	–0.2	–0.6

In the reporting year, volatility on the international financial markets was considerably lower than in the previous year. In the course of the year, important equity indices like the US Dow Jones and the Dow Jones (DJ) EURO STOXX 50 reached record highs. At the end of December, they were roughly 20% over their levels at the end of 2020.

Equity markets

	31.12.2021	31.12.2020
DJ EURO STOXX 50	4,298	3,553
Dow Jones Index	36,338	30,606

On the currency markets, fluctuations were also less pronounced in 2021 than in the previous year. At the end of December, the US dollar, Canadian dollar and pound sterling were significantly higher against the euro compared with the end of 2020. On average, the year-on-year values of the Canadian dollar and pound sterling increased against the euro in 2021. In contrast, the average value of the US dollar, at €0.85, was slightly lower in the reporting year than in the previous year (€0.88). Further information on exchange rates can be found in the section “Currency translation” in the Notes to the consolidated financial statements.

Insurance industry

According to preliminary estimates, the German insurance industry’s year-on-year premium income growth was somewhat stronger in 2021. Although premium growth in property-casualty business was slightly weaker than in 2020, in private health insurance it was substantially stronger. Premiums in life business saw negligible growth.

In global property-casualty primary insurance, premium income growth was significantly higher in 2021 than in the previous year. Especially in the USA, premium income experienced exceptional growth. A general trend toward higher prices was evident in the renewal rounds for property-casualty reinsurance contracts. Prices for reinsurance cover rose considerably in regions and classes of business with high claims experience, but only slightly in those with low claims experience.

Munich Re 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 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.

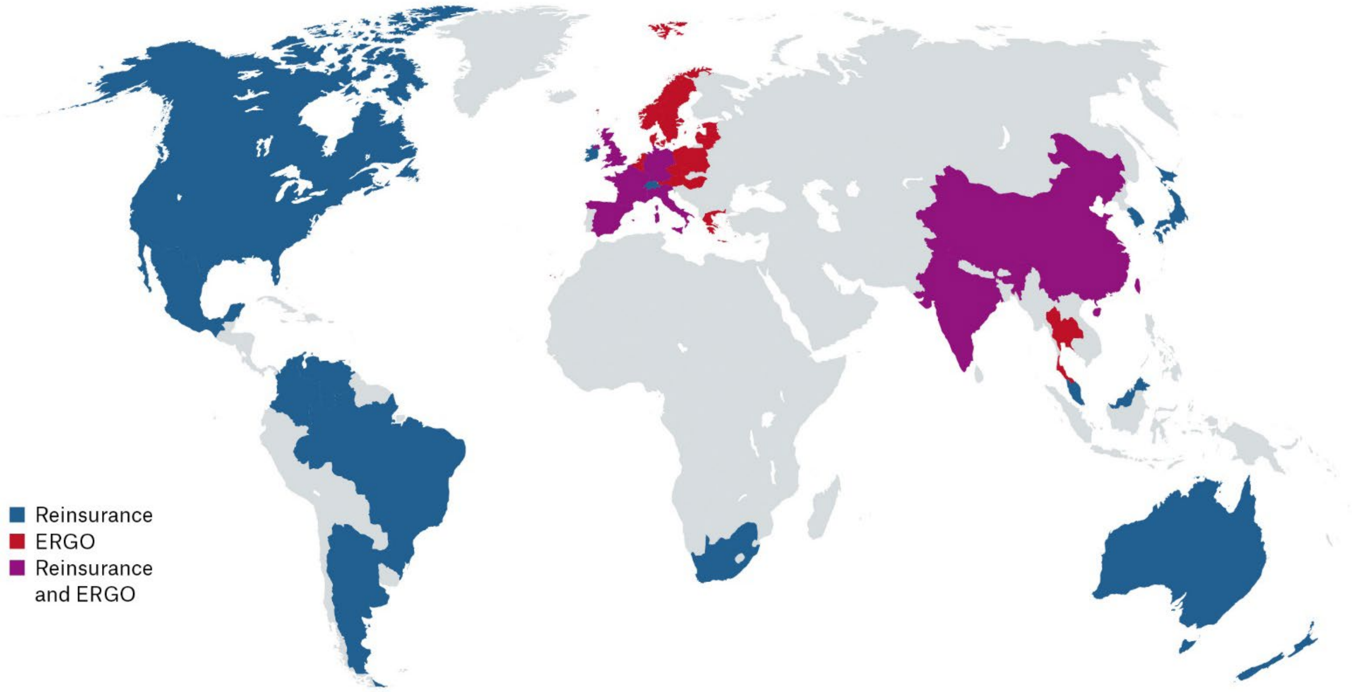
Group structure

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

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

Overview

	Munich Re Group				
Fields of business	Reinsurance		ERGO		
Segments	Life and health	Property-casualty	Life and Health Germany	Property-casualty Germany	International
Markets, divisional units and divisions	– Asia Pacific, Middle East, Africa – North America – Europe and Latin America – Financial Solutions	– Global Clients and North America – Europe and Latin America – Asia Pacific and Africa	– Life Germany – Health Germany – Digital Ventures	– ERGO Versicherung Aktiengesellschaft, Düsseldorf offering property-casualty insurance for retail, commercial and industrial customers	– Life insurance – Property-casualty insurance – Health insurance



Countries in which Munich Re conducts (re)insurance business via business units[1]. (As at 31 December 2021):

Africa
South Africa

Asia
Bahrain
Greater China
India
Japan
Malaysia
Singapore
South Korea
Thailand

Australia and New Zealand

Europe
Austria
Belgium
Czech Republic
Denmark
Estonia
France
Germany
Greece
Hungary
Ireland
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Norway
Poland
Spain
Sweden
Switzerland
United Kingdom

Latin America
Argentina
Brazil
Colombia
Mexico
Venezuela

North America
Canada
USA

1 Including affiliated companies, associates, joint ventures and branches of (re)insurance companies of Munich Re.

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 MGAs. Organisationally, we have pooled worldwide IoT activities into the new divisional unit "Global IoT".

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

Focus of life and health reinsurance operations

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

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

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

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

In order to ensure proximity to our clients, we are represented in many markets with local subsidiaries and branches. We write the main portion of our business via our Canadian branch and our subsidiary in the USA. In Europe, we have operations in Germany, the United Kingdom, Switzerland, 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 South America, the Middle East and Asia. Asian business is centrally managed by a dedicated branch in Singapore, which underlines the strategic importance of this region for life and health reinsurance.

The property-casualty reinsurance divisions

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

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

Our Europe and Latin America Division is responsible for property-casualty business with our clients from Europe, Latin America and the Caribbean. Business units – for example, in London, Madrid, Paris and Milan – afford us market proximity and regional competence. In the Latin American markets, our Brazilian subsidiary Munich Re do Brasil Resseguradora S.A. headquartered in São Paulo and our liaison offices in Bogotá and Mexico City help to ensure client proximity. The division also includes the divisional unit Financial Risks. New Re in Zurich and Great Lakes Insurance SE, which has its headquarters in Munich and operates branches in various locations – including London and Dublin –, are also assigned to this division and make valuable contributions.

The Asia Pacific and Africa Division conducts property-casualty reinsurance business with our clients in Africa, Asia, Australia, New Zealand and the Pacific Islands. Branches in Mumbai, Beijing, Seoul, Singapore, Sydney and Tokyo, along with liaison offices in Bangkok and Taipei, allow us to take full advantage of opportunities in the rapidly growing Asian-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 markets.

ERGO

Munich Re's second pillar is primary insurance business.

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

ERGO offers products in all the main classes of insurance: life insurance, health insurance, and in nearly all lines of property-casualty insurance, including travel insurance and legal protection insurance. With these products – in combination with the provision of assistance, other services and individual consultancy – we cover the needs of retail and corporate clients. ERGO serves some 35 million mostly retail customers in around 25 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-casualty insurance across nearly all classes of business, offering a wide range of products for retail, commercial and industrial clients. ERGO Vorsorge Lebensversicherung AG is ERGO's life insurer for capital-market-linked and biometric products. It offers solutions for all three types of old-age provision, mainly based on innovative and flexible unit-linked insurance products. ERGO Lebensversicherung AG and Victoria Lebensversicherung AG are responsible for running off our traditional life insurance portfolio. DKV Deutsche Krankenversicherung AG offers a full portfolio of comprehensive private health insurance, products designed to supplement statutory health cover, and company health insurance. ERGO Krankenversicherung AG focuses on products that supplement statutory health insurance, especially supplementary dental plans. The specialist travel insurer ERGO Reiseversicherung AG is a market leader internationally as well as in Germany.

In Germany, ERGO’s tied agents (agency sales) and ERGO Pro (structured sales force) are bundled under one roof in ERGO Beratung und Vertrieb AG. The latter is managed by ERGO Deutschland AG together with direct sales. All of ERGO’s German sales organisations were developed further in 2021 – in particular with regard to digitalisation and implementation of the “hybrid customer” business model, which offers customers an essentially identical range of products via all online and offline channels. ERGO is thus making integrated use of various channels – such as face-to-face consultation, internet, online chat, email, telephone or even video consultation – to leverage new potential. ERGO Deutschland AG manages its broker and partner sales in its Property-casualty, Health Germany and Life Germany divisions, depending on class of business.

ERGO International AG is mainly responsible for monitoring, coordinating and managing ERGO’s international activities. The focus is on profitable organic growth in European core markets and selected growth markets in Asia, especially China and India. In India, ERGO is positioned in property-casualty and health insurance thanks to HDFC ERGO. 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. A strategic investment in Taishan Property & Casualty Insurance Co., Ltd. in Shandong province paved the way for a successful entry into the Chinese property-casualty market.

ERGO Digital Ventures AG is responsible for digital transformation. It provides support via innovative sales strategies, manages the fully digital player nexible, and is setting up automated technologies, such as robotics, artificial intelligence and voice technology. ERGO Digital Ventures AG is also responsible for further developing ERGO Reiseversicherung AG business, and driving ahead their digitalisation. ERGO Mobility Solutions seeks to establish partnerships and alliances with vehicle manufacturers, dealerships and mobility service providers. Examples include a strategic cooperation with Great Wall Motors in Europe initiated in the reporting year, and a partnership with the British online car dealer Cazoo in the German market.

ERGO Technology & Services Management AG is a dedicated arm of ERGO Group AG in charge of providing digital platforms, solutions and services. It has a global remit and supports ERGO in designing optimum insurance products and fostering the most effective customer channels. It consists of ITERGO GmbH in Germany and ERGO Technology & Services S.A. in Poland. The latter was established in Q1 by integrating ERGO Digital IT GmbH and Atena S.A., thus combining the strengths and capabilities of both organisations in a single entity.

Our brands

Munich Re Group

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

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

MUNICH ERGO AssetManagement GmbH

The detailed breakdown of participations can be seen in the list of shareholdings in the Notes to the consolidated financial statements.

Combined non-financial statement

A core guiding principle for Munich Re is to act in a far-sighted and responsible manner. This is the foundation upon which we strive to add value for and together with our stakeholders.

In our Munich Re Group Ambition 2025, we have developed a Group-wide strategy to create long-term value for our shareholders, clients and staff – and for society as a whole. From a sustainability perspective, the main focus of this strategy is on comprehensively decarbonising our investments, our insurance business, and the emissions from our own operations.

You will find a complete description of our Group strategy and the required disclosures under Section 289c(3) and 315c(1) and (2) of the German Commercial Code (HGB), as well as further details about our Munich Re Group Ambition 2025, in the "Strategy" section.

In the following statement we report on those sustainability issues which, based on the materiality analysis, are particularly relevant for Munich Re and its stakeholders, and explain the corresponding goals, concepts and results in detail. Details about the materiality analysis can be found at the end of the combined non-financial statement.

The following topics were found to be particularly relevant in the 2021 reporting year: sustainability in investment and insurance, customer orientation and satisfaction, environmental management in our own operations, human rights, employee matters, compliance and responsible digital transformation, data protection and cyber security.

Sustainability in investment and insurance

Investment

Strategy and objectives

Taking sustainability aspects into account is a very important factor in our investments. We take a holistic view of sustainability and have accordingly integrated important ESG aspects into our investment decision-making. This helps us to identify ESG-related risks and opportunities beyond the usual financial analysis, and to make investment decisions that are responsible from a long-term perspective.

The Principles for Responsible Investment (PRI), which Munich Re helped create, constitute the foundation of our sustainable investment approach. We have adopted a Group-wide mandatory Responsible Investment Policy on that basis, which describes the PRI and ESG criteria that apply to our investment management. The signing of the PRI by both asset managers MEAG and Munich Re Investment Partners in the financial year further strengthened Munich Re's commitment to them.

The Group's ESG structure was enhanced overall in the reporting year. Strategic decisions concerning sustainable investments are made at the Board level by the newly created ESG Committee. The new ESG Management Team was also created to help the ESG Committee prepare strategic topics, and is also responsible for implementing strategic decisions. These two bodies are complemented by the ESG Investment Committee, which focuses on implementing the ESG strategy in investments.

The Chief Investment Officer (CIO) is the Board member responsible for the Group's investment management. Group Investment Management (GIM), which reports to the CIO, is responsible for the sustainability of the Group's investment strategy and has set up its own ESG team. In addition, ESG multipliers in GIM work to establish sustainability as an important consideration throughout the value chain.

This structure is also reflected at MEAG, whose asset management handles the majority of our investments. MEAG ensures targeted implementation of the ESG strategy through its membership on the ESG Investment Committee, ongoing coordination within the ESG teams, and the ESG multipliers in the various portfolio-management teams. Regular training is offered to increase awareness of ESG issues, for example in connection with regulatory topics or ESG trends.

Our investments are generally handled according to three pillars: defined exclusion criteria under our mandatory guidelines and policies, key fields of investment such as renewable energy or green bonds, and the systematic integration of ESG criteria into the investment process.

To underline our dedication, Munich Re joined the Net-Zero Asset Owner Alliance in 2020 and is striving to decarbonise its asset portfolio by 2050. With this membership we have pledged to withdraw from thermal coal by 2040. As a step in this direction, we have adopted the Munich Re Group Ambition 2025, a climate strategy for our investments that provides clear targets for our contribution to climate protection. They included reducing, in an intermediate step, our entire scope 1 and 2 carbon emissions[1] from listed shares,

1 Scope 1 emissions: Direct emissions from primary energy consumption (natural gas, heating oil, emergency generators, fuel for company cars);
Scope 2 emissions: Indirect emissions from procured energy (purchase of electricity, district heating and district cooling).

corporate bonds and directly held real estate by 25–29% compared to the 2019 base year, by 2025. In addition, we have set specific sector targets for listed shares and corporate bonds: we intend to reduce carbon emissions from investments in thermal coal – mining and/or power generation – by more than 35% by 2025, and from investments in oil & gas – drilling and production, refining and distribution – by 25%, respectively compared to the 2019 base year.

In addition, we intend to place a greater share of our assets in so-called ESG-focus investments, as expressed in our goal of increasing our renewable energy holdings to €3bn by 2025.

Measures

Munich Re has already ceased investing in companies that generate more than 30% of their earnings from thermal coal. Companies that generate 15% to 30% of their earnings from thermal coal will also be excluded from our investment universe or, in individual cases, assisted in their switch to renewable energy sources in the context of an engagement dialogue. Two such engagement dialogues were conducted with coal companies in the reporting year. Seven further engagement dialogues were held with other investors via ClimateAction 100+. Investments in companies that generate more than 10% of their earnings from oil sands are also excluded. We also exclude the following from our investment universe.

- Investment in companies that manufacture prohibited weapons (cluster bombs and land mines)
- Government bonds and notes from quasi-governmental institutions with an MSCI ESG rating of CCC
- Trade and investment in food commodities (e.g. grains/oilseeds and dairy products).

Our ESG-focus investments specifically target assets that make a positive contribution to our ESG strategy. This currently includes investment in renewable energy, certified managed forests, certified buildings and green bonds.

Renewable energy means investment in power-generating machinery and associated infrastructure. This includes the production of power and heat, as well as capture and transport with regard to renewable energy sources such as solar, wind, geothermal and hydroelectric power.

Our standard for sustainable forest investment requires a certificate from the Forest Stewardship Council (FSC), the Programme for the Endorsement of Forest Certification Schemes (PEFC), or an equivalent certification.

Buildings are deemed certified if they are directly held and feature an environmental seal or other recognised certification from, for example, the Building Research Establishment Environmental Assessment Method (BREEAM), the Leadership in Energy and Environmental Design (LEED) or the German Sustainable Building Council (DGNB).

The classification of our green bond holdings is based on an assessment of the emissions documentation from WM Datenservice.

In addition, in 2021 Munich Re itself issued a green subordinated bond, for the second time in its history. This bond underlines our commitment to use the capital markets to drive a climate-friendly transformation of the economy. Munich Re will use the €1bn in capital thus raised to finance or refinance sustainable projects in accordance with our Green Bond Framework. Projects include investments of equity and debt in renewable energy, energy efficiency, clean transportation, green buildings, sustainable water management, the eco-efficient and/or circular economy, and the environmentally sustainable management of resources and land.

Integrating ESG criteria is an important component of our investment strategy. As a result, in the following asset classes, MEAG takes individually determined ESG criteria into account when making investment decisions:

ESG criteria as an important component of our investment strategy

	Equities and bonds		Alternative investments		
Asset classes	Equities and corporate bonds	Government bonds	Infrastructure (incl. renewable energy) and forestry	Buildings acquired as direct investments	Private equity, private debt and infrastructure funds
ESG criteria	– Defined exclusion criteria – Availability of MSCI ESG ratings	– Defined exclusion criteria – Availability of MSCI ESG country ratings	Assessment of ESG aspects (prior to submission of a binding offer)	Consideration of – Eco-labels – Certificates – Energy efficiency and building materials on new investments	Signing of PRI by funds manager or existence of ESG principles required for the majority of new investments

In improving our ESG strategy we have also expanded our reporting, and now report on our ESG targets in even more detail, based on our ESG-focus investments and the ESG ratings of liquid asset classes. These new KPIs replace the former sustainability index. We are aiming to have over 80% coverage of our liquid asset classes of equity, corporate and government bonds and covered bonds with MSCI ESG ratings.

Our major commitment is paying off: In the most recent PRI assessment in 2020, Munich Re earned the maximum number of points, achieving the top rating of A+ in the category of Strategy and Governance. 39% of the 452 participating institutional investors worldwide received the same rating. The median rating was A among the relevant peer group of institutional investors. Moreover, we received the rating A in the four modules of the "Bonds" asset class. The rating in all individual modules was above the median of B.

KPIs

We measure the progress in reaching our climate goals in our investment strategy based on defined KPIs. KPIs which follow from the targets in the Munich Re Group Ambition 2025 are shown in comparison to the 2019 base year. Any additional KPIs are shown in comparison to the previous year.

The following table illustrates the development of scope 1 and 2 emissions from listed equities, corporate bonds and direct investment properties. We use data from the external ESG data provider ISS to measure the carbon emissions from listed equities and corporate bonds. The calculation for direct investment properties is based on defined data from a carbon model developed by MEAG.

Reduction of carbon emissions (scope 1 and 2) compared to the 2019 base year (Munich Re Group Ambition 2025)[1]

%	31.12.2021[2]	Prev. year[2]
Listed equities, corporate bonds and direct investment properties	30.8	0.7
Listed equities and corporate bonds from companies in the thermal coal segment – mining and/or power generation	46.8	-13.6
Listed equities and corporate bonds from companies in the oil & gas segment – drilling and production, refining and distributing	13.8	-31.4

1 For listed equities, corporate bonds based on the available carbon emissions from the ISS data provider (usually carbon emissions from the previous year). For direct investment properties, carbon emissions for the 2021 financial year are approximate due to a lack of available data at the time of publication. They are based on available carbon emissions from last year and transparent carbon-emission reductions from green energy certificates.
2 A reduction in carbon emissions compared to the 2019 base year is illustrated by a plus sign, an increase in carbon emissions by a minus sign.

In addition to decarbonisation targets, the financing of sustainable business activities plays an important role, particularly for the financial services industry. We provide information on our issued volume of green bonds in this context.

Green bonds

	31.12.2021	Prev. year	Change
€m			%
Volume of green bonds issued	2,250	1,250	80.0

The following table provides an overview of our ESG-focus investments. They are shown together with the respective sum of their market values in the applicable asset class.

ESG-focus investments

	31.12.2021	Prev. year	Change
€m			%
Green bonds	2,206	1,850	19.2
Renewables	1,724	1,600	7.8
Certified real estate	2,228	2,080	7.1
Certified forestry management	1,143	748	52.8

Classifying investments using external ESG ratings promotes the identification of ESG risks and opportunities. As an indicator of the availability of ESG ratings, we calculate the shares of the liquid asset classes equities, corporate bonds, covered bonds and government bonds covered by MSCI ESG ratings compared to the total numbers of such liquid assets, on the basis of market values.

Rating coverage of liquid asset classes

%	31.12.2021	Prev. year
Rating coverage of liquid asset classes	96.1	96.9

To provide a standardised and transparent overview of the sectors that Munich Re invests in, in accordance with the Global Industry Classification Standard (GICS) we report the market values of the various asset classes for each industry sector.

Investments by asset class and sector

€m		31.12.2021	Prev. year	Change
Sector acc. to GICS per asset class				%
Equity				
Energy	10	411	368	11.7
Materials	15	1,121	1,034	8.4
Industrials	20	2,103	1,239	69.7
Consumer discretionary	25	1,548	996	55.4
Consumer staples	30	1,192	823	44.8
Healthcare	35	1,558	1,071	45.5
Financials	40	3,280	2,747	19.4
Information technology	45	1,425	758	88.0
Communication services	50	1,015	672	51.0
Utilities	55	1,035	644	60.7
Real estate	60	356	442	-19.5
Corporate bonds				
Energy	10	2,602	2,769	-6.0
Materials	15	1,418	1,511	-6.2
Industrials	20	3,073	2,743	12.0
Consumer discretionary	25	2,515	2,515	0.0
Consumer staples	30	2,399	2,350	2.1
Healthcare	35	2,101	2,053	2.3
Financials	40	45,481	49,731	-8.5
Information technology	45	1,411	1,576	-10.5
Communication services	50	3,100	3,168	-2.1
Utilities	55	3,614	3,734	-3.2
Real estate	60	941	279	237.3
Derivatives				
Financials	40	4,660	5,228	-10.9
Mortgage loans				
Real estate	60	7,905	8,584	-7.9
Real estate				
Real estate	60	8,527	8,173	4.3

In the current financial year, we are reporting for the first time on the proportions of our taxonomy-eligible business activities in investment and insurance, as per EU Regulation 2020/852 (EU Taxonomy Regulation). The EU Taxonomy Regulation aims to set up a consistent system for classifying what business activities can be advertised as sustainable, and under what conditions. The current focus of the EU Taxonomy Regulation is on the environmental objectives of protecting the climate and adapting to climate change.

Given that the criteria were published only a few months ago, our focus with regard to the taxonomy is currently on recording the relevant KPIs. At the same time, we are closely monitoring regulatory developments, particularly concerning the treatment of the insurance industry under the EU Taxonomy Regulation.

In accordance with the provisions of Art. 8 of the EU Taxonomy Regulation, in combination with Delegated Regulation (EU) 2021/2178 (Delegated Taxonomy Regulation 2021/2178), we hereby report the following KPIs concerning the share of our taxonomy-eligible assets.

A company's business activities are taxonomy-eligible if they are listed in the Delegated Regulation (EU) 2021/2139 (Delegated Regulation 2021/2139), supplementing the EU Taxonomy Regulation. Taxonomy-eligible activities are deemed to be generally suitable for making a positive contribution to the respective environmental goal.

The extent to which this general suitability actually materialises, i.e. whether a business activity actually makes a positive contribution towards the respective environmental goal, and at the same time does not significantly hinder another environmental goal, is determined on the basis of technical criteria. If the criteria enumerated there are fulfilled, a business activity is considered to be "taxonomy-aligned". Financial undertakings need to provide information on taxonomy-alignment only as of the 2023 financial year, since this is based particularly on reports from non-financial businesses, which will themselves be published for the first time for the 2022 financial year.

In terms of our investments, this means that the business activities of the companies we invest in need to be analysed with regard to their potential eligibility, and in future with regard to their taxonomy alignment.

The key indicator for assessing taxonomy eligibility is the share of taxonomy-eligible assets ("eligibility share"). This represents the share of taxonomy-eligible assets in proportion to the overall number of assets that are classified as being within the scope of application for eligibility.

The scope of application of the figures for taxonomy eligibility includes all assets that could theoretically be used to finance business activities. This mainly includes the line items Assets, as well as selected Other intangible assets, Property, plant and equipment and Other receivables. All other line items are excluded from the figures, for example insurance items that are classified as assets for accounting purposes. These items are included in Other assets in the table below. Furthermore, investments in governments, central banks and supranational issuers are also outside the taxonomy's scope of application. This includes investments in German federal states (Bundesländer), regions, municipalities, cities and communities, as well as issues guaranteed by EU countries.

The following table shows the scope of application of the KPIs, based on the IFRS carrying amounts in proportion to the balance sheet totals.

Scope of application of the taxonomy KPIs as per Art. 8 of the EU Taxonomy Regulation

	31.12.2021	
	€m	%
Assets within the scope of application of the taxonomy KPIs	152,841	48.9
Assets within the scope of application used to assess taxonomy-eligibility	60,570	19.4
Assets within the scope of application not used to assess taxonomy-eligibility	92,271	29.5
Investments in companies that are not obligated to publish a non-financial statement	87,600	28.0
Share of derivatives	4,671	1.5
Assets not within the scope of application of the taxonomy KPIs	159,564	51.1
Investments in governments, central banks and supranational issuers	101,126	32.4
Other assets	58,438	18.7
Balance sheet total	**312,405**	**100.0**

Derivatives classified as assets for the balance sheet, as well as investments in companies which are themselves not obligated to publish a non-financial statement (for example companies outside the EU), are not included in the actual assessment of taxonomy eligibility, even though they fall within the scope of application. We mainly use data from the provider ISS ESG to identify such companies. The corresponding classification is done in accordance with Section 289b of the German Commercial Code (HGB).

When assessing the taxonomy-eligibility of investments in companies, information may be used only if it was published by the companies engaged in the economic activities to be classified. As a financial undertaking, we therefore mostly rely on taxonomy information published by the companies that we invest in. These companies are also reporting under the Taxonomy Regulation for the first time in the 2021 financial year.

This year's taxonomy KPIs therefore include only real estate and other direct investments in non-financial assets that we ourselves have classified with regard to their taxonomy eligibility. Mortgage loans to private households are classified as eligible in this regard, since they can be categorised on the basis of their contractually agreed purpose, according to the technical taxonomy-assessment criteria.

The following table illustrates the share of taxonomy-eligible and taxonomy non-eligible assets. The shares are shown as proportions of all the assets that fall within the scope of application of the taxonomy KPIs.

Taxonomy-eligible assets as per Art. 8 of the EU Taxonomy Regulation

	31.12.2021	
	€m	%
Taxonomy-eligible assets	13,893	9.1
Taxonomy non-eligible assets	1,167	0.7
Assets within the scope of application whose taxonomy-eligibility can only be estimated	45,510	29.8
Assets within the scope of application not used to assess taxonomy-eligibility	92,271	60.4
Assets within the scope of application of the taxonomy KPIs	**152,841**	**100.0**

Investments in companies whose taxonomy-eligibility can be assessed only on the basis of third-party data (estimates) are shown separately. The data for these assets is made available to us by the provider ISS ESG, and the assessment of taxonomy eligibility is performed on the basis of revenues per segment published by the companies.

If both the values estimated by the provider ISS ESG and investments in companies that are not obligated to publish a non-financial statement were taken into account in the taxonomy-eligibility figures, then our share of taxonomy-eligible assets would be significantly higher. The main driver in this regard is our large volume of investments outside the EU. These particularly include indirect investments in environment-related activities, for example in the renewable energy sector.

Given progress in the data situation over the coming years, the share of assets that are currently based on estimates will continue to fall, which will lead to successive improvements in the classification of our taxonomy eligibility, as well as that of the market. Moreover, the foreseeable expansion of the taxonomy's scope of application to also include companies that are currently not obligated to publish a non-financial statement will also lead to an increase in taxonomy eligibility.

Insurance

Strategy and objectives

The main pillar of our corporate responsibility is the assumption and diversification of risks in primary insurance and in reinsurance. Our objective – to create sustainable economic value – is enshrined in the key principles of our Group-wide corporate strategy, in our Munich Re Group Ambition 2025 and in our sustainability strategy.

Our dedication to conducting our business responsibly is also underlined by our long-standing commitment to key industry initiatives, including the Principles for Sustainable Insurance (PSI) and the Net-Zero Insurance Alliance (NZIA), and by signing the UN Global Compact.

Strategic sustainability objectives are defined by the ESG Committee mentioned earlier. The individual divisions are responsible for implementing these strategic targets and achieving the objectives for the business they underwrite. To implement the strategic targets, the respective divisions regularly report to the ESG Management Team.

In the insurance business, we systematically incorporate ESG criteria into underwriting. In addition to defining exclusion criteria in mandatory guidelines, we support, for instance, the achievement of the Paris climate targets by insuring new, climate-friendly technologies, and make those technologies more attractive and financially viable for investors.

We have also set ourselves targets for the decarbonisation of our core business. As a founding member of the NZIA, we have undertaken to lower CO_2 emissions attributable to our business to net zero by 2050. There are currently no corresponding, standardised global calculation and reporting methods for the measurement or achievement of this target. However, a collaboration dedicated to formulating such methods is underway with external partners, with completion due at the end of 2022. In addition, any data gaps in this context, both with regard to the policyholder and to the specific business insured, must be successively closed in the next few years. That notwithstanding, as part of our Munich Re Group Ambition 2025 we have set ourselves our own climate targets with respect to thermal coal and oil & gas in our primary insurance and facultative and direct (re)insurance business, thus consolidating our efforts to date:

Since September 2018, we no longer insure single risks in the planning, financing, construction or operation of new thermal coal mines, power plants and the associated infrastructure. Exceptions are possible, on a case-by-case basis, for countries in which a considerable proportion of the population (above 10%) has no access to electricity. However, since 2018, there have been no such cases. Moreover, we have undertaken to cease insuring thermal coal activities altogether in our primary insurance and facultative and direct (re)insurance business by 2040. We aim to reduce the CO_2 emissions from the activities insured in this context by 35% by 2025 and by 70% by 2030, relative to the base year of 2019.

For oil and natural gas production, we have put exclusions in place for the insurance of oil-sand extraction and the associated infrastructure. With respect to quantitative decarbonisation targets, we have also committed to short-term reductions in emissions in both our primary insurance and facultative and direct (re)insurance business, in addition to our long-term objective of net zero by 2050. In our property insurance business, in oil and natural gas production our goal is to lower our attributable CO_2 emissions by 5% by 2025 relative to the base year of 2019.

In order to measure how well we are meeting our Munich Re Group Ambition 2025 targets, in the following we detail the KPIs that we will be reporting on as of the 2022 financial year.

In the thermal coal sector, the quantitative emissions-reduction targets will be calculated using the following KPIs as the basis for an approximate extrapolation of our clients' business-related CO_2 emissions: tonnes p.a. of thermal coal extracted from mines, and installed capacity in megawatts for thermal coal power plants, with 2019 being used as the base year.

In the area of oil and gas production, the quantitative emissions-reduction target refers directly to our own calculated carbon emissions attributable to our property insurance business. These consist of the scope 1 to 3 life-cycle carbon emissions from the sponsored oil and gas production of our clients, attributable to us through the insurance policies. For these underlying calculations, we use the expertise of our subsidiary HSB Solomon Associates LLC, who themselves use the integrated open-source tool The Oil Climate Index + Gas, with 2019 being used as the base year.

We are currently working on an approach to decarbonisation in treaty reinsurance business.

Measures

Guidelines, processes and tools have been developed and put in place to implement ESG criteria in our insurance business. These include ESG criteria applicable across the Group, which we apply in insurance. Mandatory underwriting guidelines govern the handling of thermal coal, oil sands, banned weapons and Arctic drilling, among others, in all business units worldwide that underwrite corresponding risks. In December 2021, we made our guidelines on Arctic oil & gas drilling, including directly related infrastructure measures, even stricter for all Group entities that underwrite corresponding business. We no longer accept individual covers in that segment. This also applies to mixed covers and treaty business, where they include exposure above a defined minimum. The new guidelines apply to renewals of existing business as of the 2023 financial year. Our stance on other sensitive topics, such as mining and fracking, is determined by Group-wide position papers. An ESG tool customised for the purpose helps our reinsurance underwriters to systematically factor ESG criteria into their risk assessment. In addition, for ESG risk assessment we also make use of the expertise contained in renowned external ESG databases.

Individual transactions that are potentially risky are put to Reputational Risk Committees (RRCs), which are in place for every field of business (at ERGO, handled by the Reputation and Integrity Committee). These committees verify if a planned transaction is appropriate, and it is their job to ensure that no decisions are made that carry inappropriate reputational risks, which, often, also involve ESG risks.

We also hold regular information sessions and training courses as part of our responsible approach to handling ESG criteria. In the seminars and client events we conducted in the 2021 financial year, we provided information about current climate and sustainability criteria to more than 1,700 employees from our operating divisions as well as to more than 600 clients. In addition, dedicated sustainability teams in the primary insurance and reinsurance fields of business support the operating divisions by providing tailored ESG consultancy.

In the context of our decarbonisation targets, we lay the groundwork for reaching the defined milestones by implementing targeted action plans in the business units concerned, and by regularly and systematically monitoring the progress. Reductions in carbon emissions can be achieved through activities undertaken by our clients firsthand, as well as through measures we take with regard to our own portfolio (including withdrawal from business). To support the necessary transition as best we can, we initiate dialogue with our clients. Applied to our treaty reinsurance business, we use dialogue to achieve transparency regarding the insured activities in the thermal coal and oil & gas production segments, as well as the insurers' decarbonisation strategies.

In addition to the described self-imposed restrictions, we also offer GreenTech solutions to promote business. In the context of these insurance solutions, we assume a share of the technology-specific risks in order to support the development of renewables and low-carbon technology. Our focus here is on technology for the generation, transport and storage of power, especially solar thermal power plants, hydroelectric power, wind power, energy storage systems, biomass power plants and photovoltaics.

With innovative risk-transfer solutions of this kind, we shift the boundaries of insurability. For example, by offering long-term performance covers for photovoltaic modules, we reduce both the business risk for technology manufacturers and the risk of investment in associated energy projects.

Another example is wind farm cover. Here, we offer to assume material damage and business interruption losses for manufacturers and suppliers of wind turbine generators, as such events can severely impact their business performance. In addition, we insure contractors of renewable-energy plants against risks arising from design flaws and insufficient long-term stability and functionality of their projects.

Supported by the European Commission (the UN's Sustainable Energy for All initiative), the KfW banking group, the European Investment Bank and a local primary insurer – the African Trade Insurance Agency, we offer insurance coverage for political risks, such as those connected with government failure to fulfil power purchase agreements, expropriation, breach of contract, war and civil unrest; specifically, those connected with renewable energy projects in sub-Saharan Africa. The African Energy Guarantee Facility provides customised insurance solutions that facilitate investment in primarily long-term energy projects.

In our primary insurance business, too, we support the transition to sustainable energy and mobility. By offering special covers, for example against the failure to meet any predicted annual energy outputs, ERGO promotes solar power generation. To satisfy the requirements specific to electromobility, ERGO offers insurance add-ons for electric and hybrid vehicles, to cover, for example, battery damage and peripherals such as the client's battery-charging station.

KPIs

Appraisal of natural catastrophe risks in (re)insurance business is part of our ongoing risk assessment. We explain how we manage climate risks in the risk report. Below, we present the insurance portfolio's highest possible loss attributable to climate-related natural catastrophes for the 1 in 200 event. We illustrate the value at risk of the economic profit and loss distribution over a one-year time horizon with a confidence level of 99.5%. The calculation is based on our in-house risk modelling for natural catastrophes.

The net perspective after external retrocession is shown for Munich Re's largest climate-related natural catastrophe exposures:

Value at risk

€m	2021	Prev. year	Change
Natural disasters – scenario (net)			%
Atlantic hurricane (North America)	8,210	6,736	21.9
Winter storm (Europe)	4,022	3,324	21.0
Severe thunderstorm (USA)	1,000–2,000	1,000–2,000	
Wildfire (USA)	500–1,500	500–1,500	

The actual loss from natural catastrophes in the 2021 full year mostly comes from property business and totals €3,139m (€906m) after external retrocession. This corresponds to 12.0% (4.0%) of net earned premium, and takes into account major losses exceeding €10m. In addition, Storm Bernd also led to losses at ERGO.

As mentioned in the "Investment" section, for this financial year we are reporting in accordance with the EU Taxonomy Regulation for the first time, and, as per the provisions of Art. 8 of the EU Taxonomy Regulation, in combination with Delegated Taxonomy Regulation 2021/2178, disclosing the share of our taxonomy-eligible insurance activities. This figure reflects the gross written premium deemed as climate-related, and thus taxonomy-eligible.

Insurance activities can be classed as taxonomy-eligible only if they help to achieve the environmental target of climate change adaptation, and if they are defined in the technical screening criteria set out in the EU Delegated Taxonomy Regulation 2021/2139. According to the assessment criteria, only those regulatory lines of non-life insurance business, in primary insurance and reinsurance alike, that include climate-related insurance activities can be classified as taxonomy-eligible.

As insurers, we contribute both to the adaptation to climate-change risks and to the mitigation of climate risks. The Regulation does not class insurance activities that promote climate protection, such as insurance products for renewables, as taxonomy-eligible, and such activities are therefore not included in the KPI below. As a result, our efforts in the renewable energy sector are not reflected in that figure. For example, as of 31 December 2021, we insured renewable energy in over 800 projects and for manufacturers from around 80 countries in the GreenTech sector alone, for a total nominal output of over 41 gigawatts. Our products consist of newly developed insurance solutions that particularly address performance, longevity and financing risks.

To calculate the KPI, the sum of IFRS gross premiums deemed to be climate-related is calculated in proportion to the overall gross non-life insurance premiums. "Climate-related" meaning, in this regard, the total gross premiums of the regulatory lines of insurance business that are listed in the EU Delegated Taxonomy Regulation 2021/2139, and which cover climate-related risks. In this regard, we consider climate-related risks to be covered when the line of business includes products that explicitly price climate risks, or that cover such risks in the terms and conditions. As a result, the figure provides information about the basic suitability of the insurance activities, in the respective lines, to be deemed as taxonomy-aligned in future if the technical assessment criteria are fulfilled.

Insurance KPIs as per Art. 8 of the EU Taxonomy Regulation

	2021	
	€m	%
Taxonomy-eligible insurance activities	20,305	54.5
Taxonomy non-eligible insurance activities	16,980	45.5

When determining which insurance activities are taxonomy-aligned as of 2023, we expect that only the climate-related share of the gross premiums in the relevant lines of business which also concretely fulfils the technical assessment criteria, in each individual case, will be accepted. If only the climate-related share of the gross premiums were used when assessing taxonomy eligibility as well, the share of taxonomy-eligible insurance activities would be significantly lower.

Customer orientation and satisfaction

Strategy and objectives

Maintaining a close relationship of trust with our clients is a key element towards the success of our business. That is why we want to understand our clients' needs and develop the best possible solutions for them, in a joint dialogue.

We apply a differentiated management approach under our business model, which applies both to our reinsurance clients and to our primary-insurance customers and reflects their different demands and needs accordingly. Responsibilities lie with the respective Board members and/or executives, as well as within the various international companies. The topic's importance is reflected, among other things, in its having been enshrined in our Munich Re Group Ambition 2025.

At Munich Re, we manage the dialogue with our clients, and the solutions we correspondingly offer, on the basis of our clients' needs and growth ambitions. The process includes an analysis of the market and the most important players, as well as the implementation of tailored insurance solutions, products and services for our clients. Client managers in reinsurance are supported by a central sales unit that ensures transparency in our Group-wide product and service palette. This unit is also responsible for two event formats that take place annually as a platform for in-depth dialogue with representatives of our key clients: the "CDays" conference and "Advance", an exclusive six-week programme aimed at expanding participants' expertise and leadership skills and at further developing the industry. ERGO supports its independent sales partners with various offers that are tailored to the respective local companies.

Measures

At Munich Re, we have defined numerous monitoring processes to measure our performance in terms of customer satisfaction and orientation.

We apply the Net Promoter Score (NPS) to measure customer satisfaction both in primary insurance and in reinsurance business. Every two years, we undertake a global customer-satisfaction survey among all of our reinsurance business partners. The survey measures the NPS and customer satisfaction in various aspects of the business relationship. Our goal is to keep NPS stable in reinsurance.

In primary insurance, we measure NPS continuously throughout the year, both at the customer-interaction and the relationship level. When measuring NPS at the relationship level, we also benchmark against our peers and the market. We express the result in terms of our share of the market that exceeds the average relationship NPS.

The results of our monitoring identify any potential for both improvement and differentiation in the specific divisions, platforms, services, products and customer groups. In the form of initiatives, this information is then input into our strategy to meet our Munich Re Group Ambition 2025, i.e. to remain a long-term partner for our clients.

In addition to our regular customer satisfaction surveys, in reinsurance we have implemented a number of measures aimed at consolidating our client relationships. And our operational units regularly request feedback from their clients to complement the centrally-organised survey. In order to better respond to our clients' suggestions for improvement, we offer a comprehensive training programme to all staff who have direct contact with clients. The aim is for them to develop an understanding of our clients' strategies and needs so that we can develop solutions together.

In primary insurance, our advice to customers in Germany is provided using a standardised approach (ERGO compass) to ensure that quality is consistently high. ERGO uses a variety of tools to obtain direct feedback about new products and services, but also about overarching strategic issues. The main focus is its in-house market research panel (ERGO Customer Workshop) of around 6,000 customers. The ERGO Customer Workshop conducted 26 projects and/or surveys in 2021 alone. It also handled and analysed customer complaints. All feedback is used as a basis for improvements in the various areas.

In the framework of a transformation programme, ERGO Deutschland AG is also implementing a "hybrid customer" business model that combines traditional sales with online elements. In this respect, ERGO is applying the online expertise acquired by its ERGO Direkt sales units in order to achieve growth and customer satisfaction. It is planned to expand the business model outside of Germany.

In addition, all corresponding customer requests and processes are being digitised at ERGO Deutschland, to drive end-to-end digitalisation in claims management and operations across all processes and business activities. Moreover, in the context of our expansion of health, mobility and multi-level distribution (sales via third parties) activities, we have developed an "E-Care" platform in Spain that enables us to combine a variety of health services. In the mobility sector, we are working with an automobile manufacturer to offer tailor-made solutions to customers. This includes, for example, a car-protection app for our partner's clients, which allows them to easily obtain insurance cover on a case-by-case basis.

Our last global customer satisfaction survey of all reinsurance customers was conducted in September 2020. In addition, data is entered into a reputation management system which regularly tracks our reputation among various stakeholders. This allows us to identify any changes in how our reinsurance business is perceived, at an early stage, and make any adjustments accordingly.

KPIs

Net promoter score

		2021	Prev. year
Reinsurance (absolute)[1]		56	56
ERGO (Proportion of markets above market average)	%	40.0	70.0

1 The NPS has a scale of −100 to 100.

The NPS of 56 for reinsurance is at a very high level.

Environmental management in own operations

Strategy and objectives

Munich Re has adopted a holistic approach with its Munich Re Group Ambition 2025, and also takes the direct climatic effects of the carbon emitted by its own business operations into account, in addition to the indirect, significant effects from investments and (re)insurance products. This is also includes the monitoring of our Group-wide activities to mitigate the effects of our own carbon emissions on the environment and the climate, and our corresponding reduction and decarbonisation targets. Our goal is to make a contribution toward meeting the requirements set out in the Paris Agreement.

Our targets and actions to lower our carbon emissions focus on reducing our consumption of energy and other resources such as water and paper, on ensuring our business travel is as environmentally friendly as possible, and on reducing waste. To this end, we strive to continually increase our staff's awareness of environmental issues.

Under the Munich Re Group Ambition 2025, we have set goals for ourselves for our own carbon emissions from operational business processes. For example, we intend to reduce our own carbon emissions per staff member by 12% by 2025, as compared to 2019 levels, through the purchase of green electricity and other measures. We aim to reach net-zero for our own carbon emissions by 2030. This means that any carbon that we still emit from our own operational processes in 2030 will be removed from the atmosphere through appropriate afforestation or carbon-capture and storage projects.

The responsibility for our Group-wide environmental and climate strategy, the targets under the Munich Re Group Ambition 2025, and all associated measures, lies with the Board of Management or the corresponding committees with ESG duties. Implementing the strategy and target-achievement measures is done at Group level, in the respective divisional units, and locally.

The Group's policies detail our obligation to comply with national and international environmental legislation as well as our own voluntary environmental commitments.

Measures

Our environmental management activities are based on the Group's environmental policies, which we publish online here: www.munichre.com/cr/documents. One success indicator is the level of progress for carbon emissions from the aforementioned fuels and resources, in the form of a carbon footprint per staff member.

We focus on measures that provide maximum leverage in reducing our carbon emissions. These include increasing energy efficiency in the operation of our buildings and replacing fossil fuels with renewable energy. Also, when undertaking business travel, we take environmental aspects, such as the use of rail travel or hybrid or electric vehicles, into account. By increasingly digitalising our communication and transforming our locations and ways of working, and divesting from buildings that are no longer needed, we expect future carbon reductions of 3% to 4% by 2025 from these measures, compared to the base year of 2019.

In addition, our guidelines contain rules on the careful use of resources such as water and paper, and on reducing waste, even if these aspects constitute less than 5% of our carbon footprint. We use sustainable consumer materials such as recycled paper and reusable containers in our food and drink service for staff.

We encourage our staff to participate in selected environmental projects to increase awareness. In 2021 we initiated a Group-wide tree-planting project as a part of our nature-based solutions work, which 22 Group locations participated in. In order to contribute to climate-protection activities, Munich Re supports both local climate organisations such as the Munich Klimapakt as well as national initiatives such as the Development and Climate Alliance. In 2021, over 47% of Munich Re staff were involved in an ISO 14001- or EMAS-certified environmental management system that systematically monitors and assesses the implementation of applicable environmental criteria in operations and product development.

KPIs

We calculate our carbon footprint from our business operations, per staff member, by measuring the annual carbon emissions resulting from our consumption of energy, paper and water, our business travel, and our waste. The calculation is done in a standardised fashion in accordance with internationally recognised methods and conversion factors, for example the GHG Protocol.

We have been thus making significant carbon savings for the Group since 2009. In 2021, we collected data from approximately 82% of staff, and extrapolated the measured carbon equivalents to 100%. In the 2021 reporting year, we expect our carbon emissions – particularly from business travel – to remain at the previous year's very low level of 25% below 2019 figures. These values must be considered – as was the case last year – against the background of the effects of the coronavirus pandemic. Even though no completely validated Group-wide carbon footprint for 2021 was available by the publication deadline, selected KPIs do confirm this estimate. For example, carbon emissions from air travel in reinsurance show a drop of 90% (84% in 2020) compared to 2019. Looking at selected KPIs from German ERGO locations presents a similar picture. At the Munich location, carbon emissions from power consumption remain at almost the same level as the 2019 base year; carbon emissions from water consumption were significantly lower.

Unavoidable emissions – from scope 1 and 2, and selected scope 3 emissions such as paper, water, waste and business travel – will be compensated after the end of the financial year through purchasing carbon certificates from projects featuring high quality standards. We select projects for this purpose that avoid using fossil fuels, promote energy efficiency, or capture carbon through afforestation projects.

Human rights

Strategy and objectives

The respect for human rights is a part of our management approach to include economic, environmental and social challenges in our definition of success. The Board of Management has accordingly adopted a position paper that is available online at www.munichre.com/cr/documents. This position paper underscores Munich Re's commitment to human rights, as defined for example in the Declarations from the United Nations or the International Labour Organization.

Munich Re has undertaken to apply its respective duty of care along the entire value chain and to respect internationally recognised human rights. By signing the UN's Global Compact in 2007, we have committed ourselves to the following principles:

- Promoting and protecting internationally recognised human rights within our scope of activity;
- Taking precautions designed to prevent Munich Re from contributing to human rights violations, for example human trafficking;
- Upholding the freedom of association and the effective recognition of the right to collective bargaining;
- Supporting the elimination of any kind of forced or child labour;
- Helping to put an end to discrimination in hiring and employment.

These principles are also enshrined in our Code of Conduct, the compliance with which is mandatory for all Munich Re staff. We are thereby aiming to create a Group-wide understanding of the value of human rights.

In addition, we are also committed to safeguarding human rights as set out in the UN's Guiding Principles on Business and Human Rights, international human rights treaties and the ILO's declaration on fundamental principles and rights.

In accordance with international rules, the Board of Management has been signing a statement under the UK Modern Slavery Act since 2017 and, for the first the time in 2021, has published a statement under the Australian Modern Slavery Act as well.

Munich Re's management is committed to preventing its business from potentially negatively affecting human rights. In order to systematically monitor any such effects, the following four aspects have been defined: staff, procurement, our core business of reinsurance and primary insurance, and investments. We have introduced instruments for each of these aspects, which allow us to manage our respective decision-making processes in harmony with conscientious management practices. This enables us to reduce and/or minimise the risk of human rights violations.

In addition, Munich Re has developed a human-rights-based strategy for using artificial intelligence in compliance with European Commission guidelines, which covers data protection, monitoring, discrimination, bias, unintended consequences, and intentional abuse.

We also strive to improve the guarantees of fundamental rights and freedoms, which also include human rights. We do this, among other ways, by offering tailor-made insurance products. For example, in India we offer insurance protection to particularly vulnerable segments of the population, which covers basic necessities after a natural disaster. After a claims event, the sum insured is calculated according to physically measurable criteria and paid out to the government, which then distributes it to those in need in the affected region. Fundamental rights and guarantees are also the focus of many of our fundraising and sponsorship projects.

Further information can be found in our Corporate Responsibility Report, our annual Communication on Progress to the UN Global Compact, and our annual reports on the PSI and the PRI.

Measures

In 2018, we developed the following processes to fulfil our human rights due diligence, which are reviewed annually:

- Management undertaking to comply with human rights;
- Identifying and assessing the risk of human rights violations;
- Implementing and monitoring measures;
- Reporting and communication;
- Support and complaints mechanism.

Staff and external consultants can use Munich Re's whistleblowing portal to report possible or actual human rights violations. If a human rights violation is reported, or we otherwise learn of one, Munich Re's dedicated Compliance units will investigate. Every potential case is investigated in accordance with a procedure set out in internal guidelines. Every potential case of misconduct will be investigated and resolved. If we learn of human rights violations within an existing contractual relationship, we enter into a dialogue with those responsible and attempt to agree on risk-mitigating measures.

Staff

As employers, we undertake to comply with international standards of human rights and to provide adequate working conditions for our staff.

Our Code of Conduct explicitly states that Munich Re does not tolerate any discrimination. In Germany, we have set up an official department for complaints as provided for in Section 13 of the General Equal Treatment Act (AGG).

Procurement

Our goal in procurement, when making decisions and taking action, is to comply with our principles and thus take corporate responsibility along the entire value chain. ESG criteria play a pivotal role in our procurement of goods and services.

Insurance

Munich Re has clearly set out, in underwriting guidelines, how underwriters and client managers are to handle ESG risks in insurance business. If any human-rights risks are identified during the underwriting risk-assessment process, a dialogue with the contracting party is initiated and mitigation measures agreed upon.

In the insurance business, sensitive business issues or sectors have been identified in which social aspects, including human rights, are taken into account in the risk assessment. Mandatory guidelines and best practices relevant to human rights, among others, have been developed for these issues. For example, the exclusion of prohibited weapons is mandatory in both primary insurance and reinsurance.

If the assessment of a potential transaction by our Corporate Underwriting and Sustainability Departments comes to the conclusion that there is significant reputational risk, the issue is escalated to the Reputational Risk Committee – in the case of reinsurance business – or to the Reputation and Integrity Committee at ERGO.

Investments

For the purposes of sustainable investment, government bonds and notes from quasi-governmental institutions rated CCC under the MSCI-ESG system, due to high risks related to socio-economic or political factors or resource consumption, are excluded. These MSCI Government Ratings also take human rights into account.

As responsible investors, we also support the international treaties banning certain weapons (anti-personnel mines and cluster munition), and exclude any investment in equities or bonds from companies active in those sectors.

Particularly given the Supply Chain Due Diligence Act (LkSG) adopted by the German Bundestag in June 2021, we will continue to improve our internal processes to protect human rights. The Act includes the obligation, for German companies with more than 3,000 employees, to exercise reasonable human-rights and environmental due diligence in their supply chains as of the 2023 financial year. We already comply with many of the specific requirements for risk assessment and management contained in the LkSG, as mentioned above under Measures.

We aim to continually improve our processes to fulfil our human rights responsibilities of due care.

Employee matters

For Munich Re as a knowledge-based Group, the competence of our talented and high-performing staff is the basis for our success. Recruiting, developing and retaining employees constitute one of the two main components of our human resources policy. The second is promoting diversity, inclusion and equal opportunities across the Group, as a strategic key to Munich Re's success. In the category of employee matters, the issues of employer attractiveness, staff development, and diversity, inclusion and equal opportunities were again identified as significant for Munich Re.

Strategic impulses are provided from a centralised personnel unit, which reports directly to the Chairman of Munich Re's Board of Management on specific Group-wide personnel topics. Where necessary, strategic parameters are set in a Human Resources (HR) Committee, consisting of the Chairman of the Board of Management and the Labour Relations Directors from the various fields of business. These are then taken into account in ERGO, MEAG and the reinsurance business's personnel strategies via policies (e.g. on diversity) or networked projects.

Employee matters are enshrined in our business strategy through the Munich Re Group Ambition 2025. Munich Re stands for being a preferred employer that offers attractive, long-term jobs and excellent potential for career development. Two key elements for Munich Re in this respect are "Driving Digital Culture", and significantly increasing the percentage of women in leadership positions worldwide.

Our goal is to implement our business strategies in the Group as well as possible in the respective client, competitor and staff environments, in reinsurance, and at ERGO and MEAG. Our operational personnel management is closely based on the specific needs of the respective business models and is thus explicitly decentralised. In this regard, we sometimes adjust Group-wide personnel standards where appropriate, and adapt them to the local needs of the fields of business.

Attractiveness as an employer

Strategy and objectives

The goal of Munich Re's human resources work is to be an attractive, fair and responsible employer, and to remain so in the future. Significant elements of this policy include attracting candidates worldwide who have extensive expertise and experience, and then developing and retaining them. We encourage a future-focused work culture, based on mutual respect, in which cooperation in our global organisation and in external knowledge networks leads to optimal solutions for our clients. During the coronavirus pandemic which continued into 2021 as well, it became clear that trust in our staff's ability to work independently, and work-life balance considerations, were key levers for our human resources, and that we will continue to use and improve these in myriad ways in the coming years to maintain our attractiveness as employers.

Internal company agreements in all German fields of business, personnel policies applicable in reinsurance and at ERGO worldwide, international HR standards and processes for recruiting and selection at ERGO, and the MEAG handbook in Germany, constitute the regulatory framework with regard to our staff.

Measures

We aim to maintain our attractiveness for our staff by offering secure jobs, transparent remuneration, a broad corporate health management system with a variety of health benefits, comprehensive employee assistance programmes, and flexible working hours and models.

With the effects of the coronavirus pandemic in 2021, Munich Re again showed that it is a responsible employer: we neither needed to resort to short-time work in Germany, nor did we apply for state aid in other countries. The protection of our staff's health remained the utmost priority for our business operations, which we ensured through mobile working and strict hygiene rules. Online portals and tools keep staff and management up to date in all fields of business, and offer support with virtual work and management. We have offered staff Group-wide voluntary COVID-19 vaccinations through our company healthcare management system. Coordination of COVID-19-related activities and close monitoring of infection rates is ensured in the entire Group.

In 2021, Munich Re positioned itself on the labour market through employer-value-proposition strategies in reinsurance and employer branding in primary insurance, and thus is striving to win over and keep excellent talent in the future as well. The “Push boundaries. With us.” employer value proposition represents reinsurance’s corporate identity as an employer that provides its talented staff room to grow and achieve more together, and helps and supports them in doing so.

In addition to its recruiting established experts and executives when necessary, Munich Re is also always on the lookout for upcoming talent, such as students, graduates and other young professionals. Top university graduates have the option of starting a career in reinsurance through the Group’s EXPLORE programme or the International Graduate Trainee Programme. The programmes’ goals are to systematically hone participants’ personal, professional and social skills to prepare them for the myriad challenges at the Company. As of 31 December 2021, there were 10 (9) candidates in EXPLORE and 96 (60) in reinsurance. MEAG launched a new trainee programme in 2021 as well, entitled “Futures”. Currently nine university candidates are enrolled and the programme is scheduled to run for 15 to 18 months.

We submit to external rankings such as Trendence to measure our attractiveness as employers. We are regularly ranked as “attractive” by students. On the Kununu ratings portal, the scores from our own staff and applicants are in the median range for reinsurance and ERGO. We are rated as attractive employers on the “glassdoor” portal.

Munich Re is characterised by high staff loyalty, a long average length of service, and low rates of staff fluctuation and absenteeism. We offer more than half of all staff the option of taking a sabbatical or leave days. A very high number of staff have access to company healthcare benefits such as flu shots and health checks. A large percentage of our staff use the option of flexible working hours. A very large share of all staff have permanent employment contracts.

KPIs

Attractiveness as an employer

		2021	Prev. year	Change
Munich Re				%
Average length of company service (as of 31.12.)	Years	13.9	13.8	0.7
Voluntary turnover rate	%	5.6	3.5	
Sickness rate	%	3.7	3.8	
Employees with the option of sabbaticals or (un)paid leave (as of 31.12.)[1]	%	67.3	65.2	
Employees with access to medical care via company doctor or private health insurance (as of 31.12.)[1]	%	82.2	85.1	
Employees with the option of mobile working (as of 31.12.)[1]	%	90.3	99.6	
Employees with flexible working hours (as of 31.12.)[1]	%	78.5	95.1	
Permanent employees (as of 31.12.)	%	96.2	95.8	
Munich Reinsurance Company				
Average length of company service (as of 31.12.)	Years	14.0	14.5	–3.4
Voluntary turnover rate	%	2.2	1.6	

1 The difference from the previous year is mainly due to a change in methodology.

Staff development

Strategy and objectives

The training objectives and content are based on Munich Re’s competence model, which covers all the core skills that we require of our staff across the Group. The curriculum is also regularly updated to meet current and future demands. The development of digital skills is significantly changing many aspects of the way our staff work worldwide.

Responsibility for the training measures is decentralised and lies with the individual fields of business. In this regard, HR is primarily responsible for training in social skills, methods and management techniques, as well as languages. Technical training measures and e-learning courses on compliance, data protection and information security are handled by the respective departments.

Talent programmes systematically help staff in all fields of business with their careers, and prepare them for future challenges. Continuing to develop talent is a key to meeting the strategic goals of the Munich Re Group Ambition 2025.

The Munich Re Group Ambition 2025 paves the way towards increased digital competence and “New Ways of Working”. Indeed, one of Munich Re’s central goals is to ensure that our staff acquire and develop digital expertise. We are continually expanding our digital training curricula, so that our staff acquire the skills to use the tools and methods needed to drive the digital transformation of our respective fields of business. The coronavirus pandemic and the shift to working from home have also accelerated skills development. Global trends, changing societal demands and staff expectations are also leading to new forms of cooperation, which Munich Re is actively supporting in various Group-wide projects under the slogan “New Ways of Working”.

At the Group level, Human Resources is responsible for strategic management development and succession planning for the most senior management level. The unit reports to the Chairman of the Board of Management. Organisationally, the management and Board member responsible for the respective field of business are ultimately responsible.

Measures

Munich Re offers a broad spectrum of training measures to develop our staff.

In order to respond to client demands even better and more quickly in future, and to expand its network, Munich Re is strengthening the agility and autonomy of its reinsurance staff through a regular dialogue on three components – personal commitment, feedback and development – and is thus shifting the focus of operational management towards cooperation among all staff. This concept won Munich Re one of the German Insurance Association’s 2021 “InnoWards” for reinsurance, taking third prize in the “Human Resources – Qualification” category. In order to continue to improve the feedback element, “Leadership Check-Ins” were introduced in the reporting year. These provide the opportunity for managers to receive feedback about their management skills from their team members and colleagues.

We also introduced new aspects to our management culture. In early 2021, “Leadership Values” were launched in reinsurance worldwide. These five guiding principles for management have been integrated into our recruiting and talent management, for example when selecting candidates and filling management positions.

Developing talent, i.e. our “talent pipeline”, is of extreme importance for the long-term success of our company. Through a variety of business-specific and Group-wide support programmes, we offer personal and professional skills training for particularly talented employees.

At the Group level, our Group Management Platform serves mainly as a network for our managers and to train them on current management topics. We are thus laying the foundation for succession planning at this level as well. In 2021, 132 (152) staff took part in the programme.

In reinsurance, two programmes serve to identify and promote talent: “Hydrogen” is a three-year programme that is preparing 80 (76) candidates for higher-level, global responsibilities. “Oxygen”, which was launched in 2021 as a talent development programme for 132 participants, is training them over one to two years for initial management duties in the regions.

The “ERGO Grow” talent management process was developed for staff aiming to take on initial or greater management or project-management responsibilities at ERGO. 141 employees were identified and supported as part of that programme in 2021.

ERGO is currently training 22 top managers, through the ERGO Leadership Programme, to take on additional responsibilities.

We measure our success in developing talent internally mainly through the percentage of managerial positions, across all fields of business in Germany, that we were able to fill by in-house candidates. The figure was 82.6% (81.2%) in 2021. In addition, we consciously complement our management team by regularly recruiting externally.

We promote a digital culture through centralised training measures for all staff.

The “Digital School”, a platform containing a broad variety of training content and formats in the reinsurance field, allows staff to learn independently at their own pace. Munich Re places a particular emphasis on the careful handling of data and algorithms. The “Data Analytics Curriculum”, a global multi-stage training initiative, is available to all staff in reinsurance. The fact that the Digital School was accessed 1,450 (3,750) times in 2021 and that approximately 500 (450) staff have obtained the highest qualification under the Data Analytics Curriculum testify to the relevance and attractiveness of these courses. This is also shown in our e-learning course that teaches the basics of the Data Analytics Curriculum. Developed in-house, the course offers a wide range of content and was accessed and worked on around 1,400 (1,300) times in 2021. Another significant offering in our training environment is LinkedIn Learning, which is available for all staff in reinsurance worldwide. Due to its great flexibility and variety of virtual topics, it is used extensively around the world. This is reflected not only in the approximately 6,100 (4,300) active licences but also in the 228,000 (120,000) training videos completed.

ERGO also offers tools that support staff in mastering the skills necessary to drive the digital transformation. With its “e-campus” learning platform, ERGO provides a teach-yourself curriculum, including video and audio content. It offers digital content in the areas of management, innovation and digitalisation to approximately 1,000 managers. Moreover, the “digital morning”, a monthly virtual event for all staff, has become a standard fixture at ERGO.

MEAG is also promoting the rapid expansion of digital formats in its staff development programme, for example in the recruiting and onboarding process, and has been offering a virtual online learning programme in the areas of development and career, skills and methods, transformation, leadership, and innovation and digitalisation since 2021.

New Ways of Working will be changing our culture long-term. In reinsurance, this change is being actively driven through the comprehensive “RE_Work” programme. Global RE_Work principles constitute the framework for New Work projects in this regard. The latter include a pilot project to design a new, flexible workspace model, and a staff survey on possible designs.

At ERGO and MEAG, in 2021 new internal company agreements were concluded in Germany on the subjects of mobile working and new spatial concepts without set workstations. This will allow more flexible ways of working to be successively implemented. In order to prepare staff and managers as well as possible for the various challenges arising from the New Ways of Working, and to enshrine the ensuing new approach, ERGO launched a comprehensive activation and change-management programme across Germany in autumn 2021. The digital “New Work.now” platform is its main element, combining information and qualification formats. MEAG’s New Work@MEAG aims to provide a flexible and attractive working environment which supports excellence, innovation and cooperation, discourages silo thinking, and supports new forms of work.

We measure the success of our efforts through staff surveys and KPIs, as well as the voluntary fluctuation rates and other indicators set out below. These figures provide management with steering orientation as well. A global staff survey in reinsurance and at MEAG in 2020 found high levels of staff satisfaction, together with an extraordinary willingness and ability to perform. An ongoing high level of complexity was identified as an area for improvement, which was communicated to management and addressed by measures in the various units during the reporting year. The action items for MEAG, for example regarding collaboration support and performance orientation, are being addressed in project and change teams. At ERGO, the results of the Pulse staff survey on changed working conditions during the coronavirus pandemic, conducted in Germany in 2020, were released in early 2021. The increased participation compared to 2019 and the better results on the “index of sustainable commitment” demonstrate that the positive trend is continuing. Honest feedback in more than 4,200 comments also provided key input for adjusting working conditions to the new reality resulting from the coronavirus pandemic. In November 2021, ERGO launched a global staff survey of participants in over 20 countries.

In 2021, there were 969 (968) employees in training programmes at Munich Re in Germany. In 2021, we were able to fill 33.9% (35.0%) of available positions worldwide with internal candidates.

KPIs

Employee matters

		2021	Prev. year	Change
				%
Employees with at least one training measure	%	95.1	85.9	
Employees with at least one virtual training	%	91.6	83.9	
Training days per employee	Days	2.4	3.2	-24.5
Training days per employee for digital learning topics[1]	Days	1.1	2.6	-56.6
Average training costs per employee[1]	€	757	615	23.1

1 Centrally managed training programmes extrapolated to days. Specialised training measures organised by a particular department are not included. At the same time, a trend towards shorter training formats is appearing.

Diversity, inclusion and equal opportunities

Strategy and objectives

We strongly believe that the diversity of different mentalities, ideas, approaches, experiences and levels of knowledge of our staff is a key factor in Munich Re's success, and have made the promotion of this variety a strategic factor in the Munich Re Group Ambition 2025. Munich Re is composed of staff from over 100 different countries working at over 50 different locations worldwide. Munich Re has been a signatory of the "Diversity Charter" since 2012 and has enacted a Group-wide Diversity Policy containing the most important principles for a comprehensive diversity and inclusion management system. In our activities, characteristics of our staff such as gender, age and internationality – in addition to criteria such as religion, disability, nationality, people of colour and sexual orientation – play a particular role, which is also enshrined in our Diversity Policy.

The strategic management of our diversity initiatives is the responsibility of our Group-wide human resources unit and is implemented by management and/or the Board members in charge of personnel in our fields of business. The human resources units in the fields of business are responsible for the implementation at the respective locations in the respective divisional units.

Our goal is to increase the share of women in management positions from 35% at the end of 2020 to 40% across all management levels by 2025. The figure was already at 37.8% at the end of 2021.

Measures

Munich Re stands firmly opposed to racism, inequality and discrimination. Munich Re's Code of Conduct, as a binding set of rules for all staff worldwide, prohibits discrimination or inappropriate behaviour of any kind. Staff regularly take mandatory courses on the German General Equal Treatment Act (AGG) and the Code of Conduct. Complaints departments have been set up to deal with cases of unacceptable discrimination should they arise.

The Board of Management's determination to increase the percentage of women in management, at all management levels worldwide, was again underscored in 2021. The following measures have been accordingly implemented: lists of candidates and selection committees have to be diversified across the Group; the Board of Management is to be closely involved in all senior management staffing decisions; talent development is to be even more strongly dedicated to equal opportunities; and our gender diversity progress is to be monitored Group-wide. The KPIs have been integrated into the routine, Group-wide reporting process for our business figures.

In order to meet this goal, Munich Re has created appropriate and supportive conditions, and implemented numerous measures aimed at the personal development of all staff. Established training and development measures continued in 2021. These include mentoring programmes, coaching, networks for various staff groups, and tailored part-time and parental leave models. Numerous family services including childcare, senior care and career counselling complement these offerings.

Further measures to promote gender diversity include:

In Munich, work began on the "Women's Career Index" in 2021, with which we intend to better understand the challenges women face in their careers, and where we stand at Munich Re.

On International Women's Day in March 2021, over 130 employees took part in a LinkedIn event promoting gender equality.

In 2021, ERGO started its tenth mentoring programme for women at German locations, to support qualified and ambitious women in their personal career choices.

The measures developed over the past few years at ERGO, under its "Women in Sales" project, have been implemented and are regularly reported on in a steering committee set up especially for that purpose.

A total of 2,217 (1,666) attendees participated in our 12 (13) women's networks in 2021. A total of 2,814 (1,063) staff took part in the events this reporting year. The EFEU women's network (Erfolgreiche Frauen, erfolgreiches Unternehmen) in reinsurance aims to encourage women to take the next steps in their careers and promote the visibility of women in the company. A round-table discussion was held at MEAG on International Women's Day between members of win@m and management.

Numerous other networks and activities reflected, in the reporting year, Munich Re staff's great commitment to the topics of diversity, inclusion and equal opportunities:

The 4 (7) networks for the LGBTIQ+ community organised 20 (21) events globally. Since 2021, a partnership with the service provider "Prout at Work" has further bolstered these networks.

ERGO in Germany organised a Diversity Week in May 2021, during which representatives of the LGBTIQ+, women's, fathers', inclusion and newly launched People of Colour networks shared matters of significance to their respective communities and demonstrated the diversity of ERGO staff.

In global reinsurance, LinkedIn Learning and the Catalyst learning resource offer numerous individual training courses, programmes and informative posts on how to support an integrative workplace. These offerings were advertised on World Cultural Diversity Day and during Pride Month – the awareness month for the LGBTIQ+ community – in June. In the US, we are strongly committed to supporting People of Colour and ethnic diversity, for example through committees and employee networks. In 2021, we also established partnerships with schools, universities, non-profit organisations and associations, and had the opportunity to become one of the sponsors of the 10th anniversary of the Memorial Foundation, which is dedicated to the upkeep of the Martin Luther King, Jr. Memorial.

We also continue to emphasise balance and diversity in our various talent programmes:

In the Group Management Platform, 38% (31%) of participants are women, and 45% (42%) have international backgrounds.

The percentage of women participating in the reinsurance group's global talent programme, Hydrogen, is 38% (38%); approximately 73% (82%) of the participants are from the International Organisation.

In the "Oxygen" talent programme in reinsurance, 47% of participants are women and roughly 83% come from the International Organisation.

The percentage of women in the ERGO Leadership Programme is 55%. And 36% of the participants come from the International Organisation.

In the new trainee leadership programme at MEAG, entitled "Futures", a share of 56% women was achieved in 2021.

KPIs

Diversity, inclusion and equal opportunities

		31.12.2021	Prev. year	Change
Munich Re				%
Women in the workforce	%	52.6	52.9	
Women in management positions, level 1–4	%	37.8	35.1	
Women in management positions, level 1	%	31.6	27.3	
Women in management positions, level 2	%	32.3	31.2	
Nationalities	Number	114	–	–
Women's networks	Number	12	13	–7.7
LGBTIQ+ networks	Number	4	7	–42.9
International participants in development programmes	%	36.1	–	
Munich Reinsurance Company				
Women in the workforce	%	44.8	44.4	
Women in management positions, level 1	%	14.0	7.9	
Women in management positions, level 2	%	24.1	19.4	

Further information on women in management in the 2021 financial year (targets and status) can be found in the Statement on Corporate Governance in accordance with Sections 289f and 315d of the German Commercial Code (HGB), in the section "Equal participation of men and women in management positions".

In summary, 2021 was again marked by the coronavirus pandemic, both in terms of our business and for our staff. The pandemic poses a great challenge for us, but it is also creating opportunities. We were still able to make good progress in our reported topics and implement key strategic changes, which will pave the way for our future ambitions, for example as to New Ways of Working or diversity and inclusion. In this regard, we will continue to establish a variety of operational measures within the Group to optimally support the respective business model and the respective employee structure.

Governance

In this section, we report on the topics of compliance as well as responsible digital transformation, data protection and cyber security.

Compliance

Strategy and objectives

How Munich Re is perceived by the public and our business partners depends on each and every member of our staff. Our actions are guided by the principles and values detailed in our Code of Conduct, and we strive to maintain our stakeholders' trust and protect Munich Re's reputation. Appropriate conduct plays an important role in this regard. This means that Munich Re aims to comply with all applicable statutory, supervisory and other external rules and standards, particularly those related to the insurance and investment business, and with all internal regulations on avoiding material compliance risks in all of our business activities.

Compliance is the responsibility of every employee. Based on the Code of Conduct and other commitments to responsible conduct (e.g. the United Nations Global Compact), all staff have undertaken to act honestly and dependably. They are to make business decisions based on all applicable law, statutes and internal rules, and avoid any conduct that could be harmful to Munich Re. Our Board of Management and executives are particularly responsible for implementing compliance as an integral part of our business processes. Our executives are role models for our staff and have a duty to ensure that business within their sphere of responsibility is conducted in accordance with the law, statutes and internal regulations.

Understood correctly, for us compliance means complying with law, statutes and all internal rules, such as the Code of Conduct, which apply to operating an insurance and investment business. Compliance is thus a key element of our business processes and allows us to fulfil our responsibilities and to embody integrity.

Providing quality advice to customers is a top priority at Munich Re. At ERGO this can be seen, for example, in its having signed the Code of Conduct issued by the German Insurance Association (GDV) for the sale of insurance products in 2012. This Code obliges the signatory insurers and their brokers to not only comply with high standards of advice and brokerage, but to also have this compliance regularly checked by independent auditors. In 2020, for the third time, KPMG confirmed that ERGO was effectively implementing the contents of the Code.

In addition to satisfying statutory requirements, we have also set ourselves the goal of enabling our staff to conduct themselves ethically and legally through a defined reference framework, including a Group-wide Code of Conduct, guidelines and standards. Training, advice from managers and staff, and proper communication of corresponding content also play important roles in this regard.

Moreover, we aim to identify, monitor and investigate key compliance risks using a Group-wide methodology, which also uses a set framework concept to evaluate the controls, and also to investigate potential violations that may occur despite these appropriate measures.

A further goal is to continually improve the Compliance Management System, eliminate and resolve violations and regularly report to the appropriate parties.

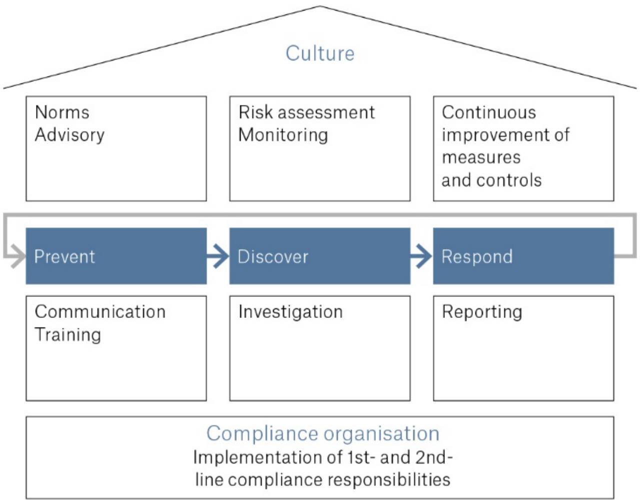
In order to meet these goals, we define, among other things, Group-wide standards and monitor compliance risks. These particularly include corruption and bribery, which are not tolerated (zero-tolerance policy) at Munich Re; compliance with financial sanctions, money-laundering provisions and antitrust law; product sales and design (sales compliance) that allow a relationship of trust and fairness with our clients; and data protection, to ensure that data entrusted to us is handled securely.

Measures

Compliance Management System (CMS)

The compliance function is responsible, among other things, for establishing and monitoring the necessary organisational measures to ensure compliance on the part of Munich Re, its management and its staff. We have developed a CMS for this purpose that meets compliance standards such as ISO 19600 and IDW 980 from the German Institute of Certified Accountants (IDW), and was carefully tailored to meet Munich Re's needs. The CMS constitutes the methodological framework for the structured implementation of the early-warning, risk control, advising and monitoring functions.

Munich Re's CMS is geared to the aforementioned goals and is designed as follows:



The scope and means of implementing compliance activities with regard to the above-mentioned CMS elements are guided by the risk profile of the respective Group company, though the implementation of minimum standards is mandatory for all entities.

Basis

Our business activities are embedded in a compliance culture based on our core values, which are particularly reflected in the Munich Re Code of Conduct, our main standard for staff behaviour.

Compliance organisation involves designing the structure of the compliance function, which includes determining the tasks, responsibilities and processes with regard to compliance measures and interfaces. Our compliance unit manages compliance activities through Group-wide standards and a network of regional and local Compliance Officers.

Prevention

The compliance norms include a range of principles and minimum requirements, particularly with regard to appropriate measures for preventing and avoiding key compliance risks. An automated tool for standards management has recently been introduced, and will support staff in dealing with standards, for example by allowing them to search for norms using keywords, to check the status of a given norm's implementation in the Group, and to automatically receive information about new, updated or obsolete norms.

The advisory function responds to compliance-related questions from staff, provides advice on specific cases, issues general recommendations, and shows senior management, managers and staff how to assess and avoid compliance risks, but also how to avoid potential external and internal breaches and react accordingly.

Our communication and training are aimed at increasing awareness of compliance risks and dealing with them confidently, and are tailored to the respective target groups.

Staff are obligated to regularly attend training, with mandatory tests, on the Code of Conduct, preventing corruption, and ensuring compliance with antitrust law and data protection. The training programme on antitrust law, among other things, was completely revised in the reporting year. ERGO and MEAG also have mandatory training on the Code of Conduct in place for all staff in Germany. In addition, all Board members and other executive staff at ERGO in Germany must attend a mandatory classroom seminar on compliance, which builds on the online programme. Corresponding training measures have also been introduced at the various ERGO branches abroad.

Detection

The assessment of compliance risks includes the systematic identification, analysis and mitigation of such risks. The process is based on a Group-wide methodology used to identify, assess and document risks. Munich Re's main compliance risks and the corresponding mitigation measures are analysed and reported to management at least once a year. The main risk areas include data protection, financial sanctions, antitrust law, money laundering, sales compliance and corruption. The management of changes to the law is part of our risk assessment, in order to evaluate in good time any possible effects of changes in the legal environment.

Monitoring consists of evaluating whether the implemented measures for mitigating material compliance risks are appropriate and effective. Monitoring includes, among other aspects, reviewing the defined framework concepts and assessing the design and effectiveness of the controls implemented.

During due diligence reviews before and after M&As and subsequent integration phases, the respective compliance measures are also reviewed according to the principle of proportionality.

Internal reviews are conducted by the compliance function, if there are allegations or suspicions of illegal activity and/or misconduct within the company. We have set up a comprehensive whistleblower system for reporting suspicious activity.

Response

Continuous improvement means regularly reviewing our CMS and compliance measures on the basis of risk assessments, monitoring and other relevant information from the various departments (audit reports, legal changes, organisational changes, etc.), and making adjustments if necessary. In this regard, the maturity of the CMS is assessed on an annual basis using quantitative and qualitative checks and KPIs. These include the participation in the mandatory online training sessions, for example on corruption, antitrust law, data protection and the Code of Conduct. The same applies to the number of whistleblowing complaints received and other indicators of the number, type and severity of identified compliance breaches.

Compliance reports are submitted in an appropriate form to the Board of Management and the Audit Committee every six months, and ad hoc when required. Reporting includes, but is not limited to, information on significant compliance risks and mitigating measures, compliance-related violations and statements regarding the maturity of the CMS, as well as an overview of the adequacy and effectiveness of the procedures implemented to comply with external requirements. Reporting also includes regularly communicating with supervisory authorities such as the Federal Financial Supervisory Authority (BaFin).

Selected compliance programmes

We have set up dedicated compliance programmes as minimum standards for compliance risks of Group-wide relevance, for example corruption and bribery, compliance with financial sanctions, money laundering rules and antitrust law, sales compliance and data protection. Monitoring the implementation of these programmes is the responsibility of the respective local compliance organisation.

Due to its international activities, Munich Re is also subject to foreign corruption-prevention laws such as the UK Bribery Act and the Foreign Corrupt Practices Act in the United States. Accordingly, we have adopted Group-wide minimum standards on appropriate conduct regarding invitations, gifts, donations and sponsorships, as well as on interacting with public officials. Fighting corruption is a compliance programme that is subject to a zero-tolerance policy at Munich Re. It includes, among other measures, regularly updated online training.

Munich Re is also committed to fighting money laundering and terrorist financing. The companies that are subject to the German Money Laundering Act (GWG) have been set up accordingly; officers responsible for money laundering issues, and their deputies, have been appointed where mandated by the GWG. ERGO and MEAG have, through in-house anti-money-laundering policies, set up fundamental standards for their staff in the relevant companies to prevent money laundering and terrorist financing. Identifying customers, service providers and suppliers is done in accordance with the know-your-customer principle and has been integrated into corresponding due-diligence reviews.

Whistleblowing portal

We maintain a Group-wide reporting system for breaches of the law and other regulations. Staff can report potential breaches to Group Compliance & Legal or their line manager. In addition, they can contact an external, independent ombudsman. The compliance whistleblowing portal is available to all staff and external staff for reporting breaches. This allows tips to be reported securely, anonymously and confidentially. Any reports received are forwarded to Group Compliance & Legal or the responsible local compliance organisation. The platform can be used to report potential breaches in the areas of financial crime (corruption, financial sanctions, fraud), regulatory requirements, money laundering, tax law, antitrust law, insider trading, sales compliance, and data protection, but also those relating to human rights, gender-specific discrimination, sexual harassment, diversity and violations of equal-treatment provisions. The anonymity protection function of Munich Re's compliance whistleblowing portal has been externally certified under ISO 27001.

In accordance with the EU Whistleblowing Directive No. 2019/1937, Munich Re's whistleblowing portal is currently being updated to add local whistleblowing systems.

KPIs

Munich Re considers any breach of internal policies or guidelines, regulations or statutory requirements to be a compliance case. Such cases constitute an essential component of our reporting to the Boards of Management and Supervisory Board Audit Committees of Munich Re companies.

In 2021, around 650 reports of potential misconduct were received through the various channels in the Munich Re Group. All reports were carefully and impartially investigated, while maintaining the anonymity of the whistleblower, where requested. The whistleblower's protection was ensured at all times.

62% of the reports were not confirmed, whereas misconduct was determined in 38% of the cases, of which 39% consisted of breaches of internal policies and guidelines and 61% of regulatory and statutory requirements. No systematic compliance breaches were identified.

The 78 cases in which staff did not comply with regulatory or statutory requirements fell into the following categories:

- Regulatory framework: 56%
- Tax law: 17%
- Fraud: 12%
- Sales: 9%
- Staffing: 4%
- Unfair competition and antitrust law: 2%
- Money laundering: 0%
- Financial sanctions: 0%
- Corruption: 0%

The findings in all cases were used to improve the Compliance Management System. 15% of the cases led to disciplinary action.

A comparison with the previous year's figures will be possible as of 2022, based on an improved reporting system.

Responsible digital transformation, data protection and cyber security

Strategy and objectives

Digitalisation and the challenges it entails for staff with regard to data protection, information security and the responsible use of artificial intelligence (AI) continue to gain in importance. Their importance has particularly increased during the coronavirus pandemic. Transformation efforts towards digital and data-driven processes have significantly accelerated in many insurance companies as well. It is important for Munich Re to ensure that digital data and technologies are used responsibly, and to remain a trusted partner on the market by offering innovative solutions for our customers. Against this backdrop, we have made responsible and ethical digitalisation an essential component of our business strategy and are making targeted investments in technology and staff.

Due to the nature of its business, Munich Re comes into contact with a large amount of data. Protecting this data is important to us, especially given the fact that increasing digitalisation means that many business processes include personal information. Compliance with data protection regulations is also a significant element of maintaining Munich Re's reputation and the trust of our business partners. In the area of data protection, compliance with national and international regulatory requirements such as the EU General Data Protection Regulation (GDPR) is one of the main drivers for the development of our management approach. Moreover, in the various fields of business, data protection management systems have been implemented to systematically monitor and control how we handle personal data.

At the same time, we consistently apply three pillars of protection in the cyber security field: confidentiality, availability and integrity of our information. The requirements in this regard are driven by statutory and supervisory regulations, and are an integral component of Munich Re's corporate strategy, since this constitutes a key factor to our business success. Accordingly, in light of the increasing digitalisation of our business processes, our goal is to design the level of protection for our data and information on the basis of the respective risks. This is done with the help of a Group-wide programme that reflects all facets of data and information security in individual segments. These capabilities are regularly assessed on the basis of quantitative and qualitative criteria using a maturity-level-oriented model, and which is improved accordingly using business-field-specific measures. The goal is to reach a uniform average level of maturity across the Group by 2023. This strategic goal includes both the results of supervisory requirements audits and benchmarking.

The Code of Conduct and various business-field-specific standards include mandatory rules for all staff and are intended to ensure that data protection and information security are dealt with consistently.

The norms are mainly based on the EU General Data Protection Regulation (GDPR) for Group companies situated in the EU/EEA. Based on these norms, Munich Reinsurance Company, ERGO and MEAG have each adopted a data protection policy covering their activities in the EU/EEA in order to ensure a consistent, mandatory level of protection across these fields of business. Internal data protection regulations at all locations worldwide aim to ensure an appropriate level of data protection for our intra-Group communications with reinsurance companies situated outside the EU/EEA.

Data Protection Officers have been appointed to handle data protection for the various fields of business at Munich Reinsurance Company, ERGO and MEAG. Group-wide data protection organisation is centrally coordinated by the Group Compliance & Legal divisional unit. Among other tasks, the Data Protection Officers and experts work to ensure compliance with the data protection guidelines, monitor the legality of IT-supported data processing, advise the respective companies on their duties under the applicable regulations, answer staff questions on data protection, and serve as a first point of contact in communications with the supervisory authorities. Reports are made at least once a year to Munich Reinsurance Company's Board of Management concerning material data protection issues and improvements to Munich Re's data protection management system.

At Munich Re, particularly complex and risk-prone data protection topics are handled by the Centres of Excellence in the compliance and legal areas, which are available for questions from all staff.

Management of information security risks is the responsibility of the Group Chief Information Security Officer (Group CISO). This involves defining, maintaining and implementing the information security strategy, which includes numerous measures and projects implemented by the Group CISO.

The Group-wide guidelines on information security and business continuity management support this by defining goals, minimum requirements, responsibilities, processes and reporting procedures with regard to information security and ensuring business continuity.

We are guided in our work by the principle of "responsible artificial intelligence", based on the seven Ethics Guidelines for Trustworthy Artificial Intelligence prepared by an expert group at the European Commission.

Munich Re's main goal when using AI in reinsurance is to offer solutions that are tailored to our clients' needs, for example by making it easier and quicker for us to assess risks, settle claims, or insure new types of risk. Moreover, Munich Re assumes the performance risk from AI-based models through new insurance products such as aiSure™.

In primary insurance, data and artificial intelligence are also key factors driving digital transformation, particularly though intelligent process automation and highly individualised customer service.

Measures

To continuously improve our digitalisation processes, we implemented numerous measures in the reporting year.

Munich Re staff receive regular training on the GDPR, mandatory internal data protection regulations and information security with the aid of e-learning programs. All new staff are also required to take the e-learning programs during their induction period. Moreover, division-specific online courses were added in the reporting year.

We also offer training courses targeted to specific groups of staff, such as developers, users and managers, for example LinkedIn Learning and the data analytics curriculum.

In order to offer full transparency for data protection and information security risks, and to fulfil its own accountability in this regard, Munich Reinsurance Company has developed its own IT tool to ensure compliance with data protection regulations. The "Compliance Web" uses a defined process to automatically review all IT-supported processing of personal data. Responsibility for this process lies with IT Security and the Group CISO. The tool also allows us to identify and track, with the help of privacy impact assessments, any data processing that entails a high risk of infringing on anyone's rights or freedoms. In 2021, the technical groundwork was laid for the implementation of the tool at ERGO as well.

In addition to the aforementioned data protection functionality, the tool helps IT Security check every new IT-supported data processing task in terms of whether it is secure, based on the level of protection for the data processed. This process is being continually improved, with the goal of integrating it into an overarching governance, risk, and compliance solution.

It is our declared goal to avoid any type of discrimination through AI, which can for example arise through the use of historical data. In addition, we check that our data resources cover all relevant demographic groups where possible, for example as to age, sex, nationality or ethnic background. At the same time, we bear in mind the legal, social and cultural standards of every country in which we do business. Moreover, we place great value on making our algorithms as transparent as possible. Through partnerships with the scientific community and academic institutions, we have access to the latest techniques for illustrating the behaviour of AI systems.

KPIs

In 2021, as in the previous year, no material data protection events as defined in the Solvency II Group Compliance Policy occurred anywhere in our Group worldwide, nor were any material proceedings for breach of data protection regulations initiated. Nevertheless, Munich Re is increasingly the target of cyber attacks, which threaten the confidentiality, integrity and availability of our information and business processes. As a result, measures that both prevent such attacks and facilitate their identification are being continually improved, particularly in this area. We are also optimising the systematic management of any such incidents.

Further details

In the following section, we provide further information about our business model, our management's involvement, and about non-financial risks and how we deal with them, for a fuller understanding of the sustainability of our actions under the German Commercial Code (HGB).

Details on the business model

Munich Re is one of the world's leading providers of reinsurance, primary insurance and insurance-related risk solutions. The information about Munich Re's business model, required under Sections 289c(1) and 315c(1) of the German Commercial Code (HGB), is contained in the information about the Group.

Corporate responsibility governance structure

We have clearly defined the organisational responsibilities for corporate governance within the Group. Our Economics, Sustainability & Public Affairs Division, which reports directly to the Chairman of the Board of Management, is responsible for drafting and implementing the guidelines on our Group's corporate responsibility strategy. Fundamental strategic decisions are taken by the Board of Management, or, more specifically, by the ESG Committee, a subcommittee of the Strategy Committee. The ESG Committee is supported by the ESG Management Team, which is composed of the heads of the central divisions and divisional units tasked with significant ESG duties, as well as the Chief Underwriting Officers from reinsurance and ERGO, and which is responsible for implementing and monitoring the Group-wide ESG strategy. The ESG Committee's objective is to strengthen the Group's ESG monitoring and accentuate the strategic importance of ESG issues for the Group. In addition, we have included ESG targets in the Board of Management's remuneration system since 2012, and this year complemented them with concrete evaluation criteria www.munichre.com/ir/documents.

The Supervisory Board deals with significant sustainability issues at least twice a year, on the one hand based on the combined non-financial statement and on the other through regular ESG updates about strategy and measures. Several members of the Supervisory Board possess significant ESG expertise and are thus qualified to assess the information. Further information on the Supervisory Board's responsibilities and those of its Committees can be found in the Report of the Supervisory Board.

Risk analysis

For us as risk carriers, risk management constitutes a key element of responsible and sustainable corporate governance. In addition to financial risks, we also include non-financial risks in the area of environmental, social and governance (ESG risks) in our internal risk management processes and risk reporting. Further information on the management of non-financial risks is provided in the risk report.

Unlike in other sectors, Munich Re's business activities do not normally entail any material risks as defined in Sections 289c(3) and 315(1) and (2) of the German Commercial Code (HGB), for example social or environmental risks. Nevertheless, risks that can be categorised as ESG risks may indirectly arise from our insurance business (e.g. through covering major infrastructure projects) or investments.

We are aware of our corporate responsibility for ESG risks and manage them accordingly. Not complying with ESG standards may negatively affect Munich Re's reputation – in addition to the potential consequences for the environment and society – and thus become a significant risk factor. As a result, risks that fall under the legislative criteria are particularly recorded in the context of reputational risk management. We identify, analyse, assess and monitor reputational risks with the aid of qualitative processes. Reputational risk committees (RRCs) in the fields of reinsurance, primary insurance and at MEAG assess concrete reputational issues and the potential reputational risks of individual transactions, and also review ESG risks. The RRCs objectively assess the material reputational risks arising from reported ESG risks, in reinsurance, at MEAG and at ERGO respectively. They are then documented in writing.

In the 2021 reporting year, no business activities rated as critical were undertaken.

About this statement

Statutory requirements

In the combined non-financial statement, we report in accordance with the requirements of the European Corporate Social Responsibility (CSR) Guidelines and the corresponding commercial law provisions of Section 289b and 315b of the German Commercial Code. This statement combines the non-financial statement of Munich Re and the non-financial statement of Munich Reinsurance Company. All content contained in the statement applies both to the Group and to Munich Reinsurance Company, unless otherwise noted.

In preparing the non-financial statement, this reporting year we bore in mind the Global Reporting Initiative (GRI) standards, particularly when analysing the material issues and describing the concepts. An exhaustive report using the GRI core standards is published separately in the Sustainability Report, which is available at www.munichre.com/cr-en.

Moreover, since 2020 we have reported in accordance with the standards of the Task Force on Climate-related Financial Disclosures (TCFD) in the Sustainability Report. In the risk report, which from this year includes a more detailed description of non-financial risks, our reporting on risks for insurance and investments resulting from climate change is also based on the TCFD standards.

Moreover, the present non-financial statement also uses the standards from the Sustainability Accounting Standards Board (SASB) as a guide, in order to reflect these standards' increasing importance for investors.

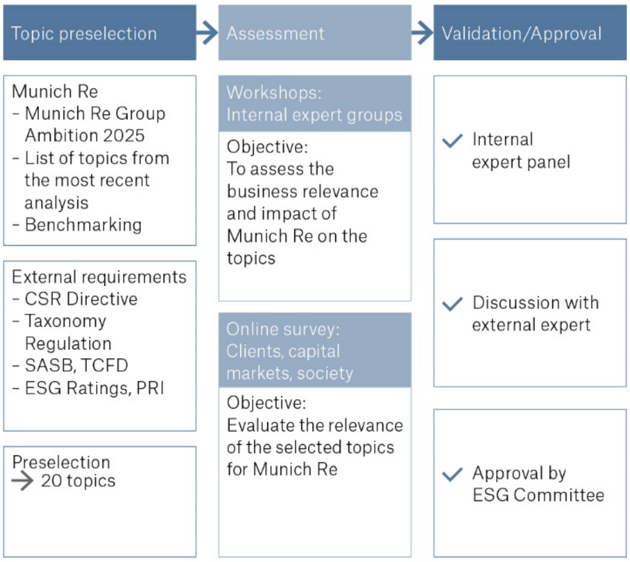
An overview of the relevant information about the TCFD and the SASB can be found in the TCFD and the SASB Index, available at www.munichre.com/cr/documents.

Our goal is to continue improving the transparency of our reporting in the future, and to keep meeting updated requirements.

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft was tasked with the assurance audit of our combined non-financial statement in 2021. All information in this statement was subjected to a limited assurance audit. Any references to information outside the combined management report constitute outside information and are not part of the combined non-financial statement; they are not covered by the audit.

Materiality analysis

The materiality analysis determines what sustainability topics are of particular importance for Munich Re and its stakeholders, and therefore should be focused on in our sustainability management and reporting. In order to comply with both regulatory standards and best practices when reporting, we have conducted a materiality analysis to identify the significant and material topics to be reported on. The analysis is based on the definition of materiality provided in Section 289c of the German Commercial Code, and also takes into account the GRI standards and the EU Commission's proposal for a Corporate Sustainability Reporting Directive (CSRD), which cover further perspectives. We are therefore preparing for potential future obligations, and have already included the implications of the CSRD's double materiality principle in this year's reporting.

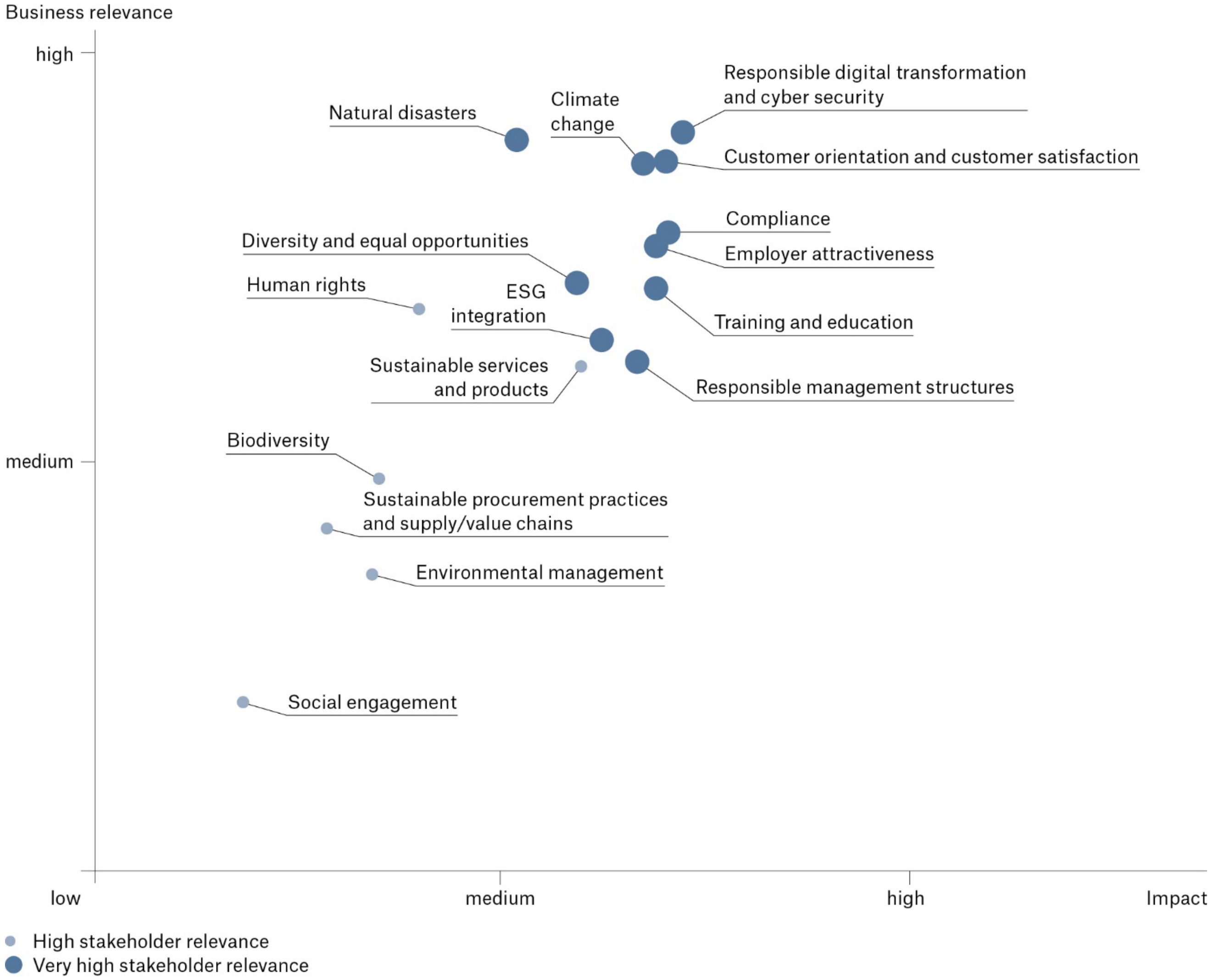


Identifying the topics to report on was done in three main steps: firstly, in an initial preselection of topics, which included both the topics identified by the previous materiality analysis and those resulting from the current analysis. Secondly, the individual topics were combined into logical blocks of issues, which constituted the basis for a standardised online survey of external stakeholders and in-house management workshops. Participants in the in-house workshops were chosen so that as many departments as possible with direct contact to our stakeholders were able to attend. The individual topics were evaluated by the stakeholders in two categories: (1) Munich Re's influence on sustainability aspects, and (2) the effects of the sustainability aspects on Munich Re. The following stakeholder groups were selected for the analysis:

- Clients
- Staff
- Investors
- Representatives from broader society

In a third step, the results were combined, consolidated and validated by an internal expert committee. The results were also discussed with an external expert. Finally, the topics identified as relevant to report were presented to the ESG Committee and approved.

The results of this year's materiality analysis are illustrated in the following matrix. The relevance of Munich Re's influence on the aspects is illustrated horizontally, while the relevance of the individual topics for Munich Re's business is presented vertically. The size and colour of the circles represent the opinions of the external stakeholders, i.e. the topics' relevance to the people in question.



With regard to the topic of human rights, given their increasing importance and taking into account the aforementioned methodology, it was decided to report on them this year. Although the topic of “own emissions” is not as significant as in other industries, given our business activities, we have nevertheless set clear goals for ourselves here as well and report on them in a separate section.

Business performance

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

Despite the difficult market environment, Munich Re achieved a consolidated profit of €2.9bn in 2021. Accordingly, we succeeded in slightly exceeding our profit forecast of €2.8bn from the beginning of the financial year.

The reporting year was greatly influenced by the ongoing pandemic and extreme weather events particularly in America and Europe. We were able to significantly increase gross premiums written – by 8.5% to €59,567m (54,890m). In reinsurance, pandemic-related losses amounted to €1.0bn (3.4bn), of which €785m (370m) was attributable to life and health reinsurance and €212m (previous year: slightly more than €3bn) to property-casualty reinsurance. At ERGO, the adverse earnings impact of COVID-19 totalled €5m (64m).

Climbing by 17.0% to €28,793m, property-casualty reinsurance greatly contributed to the increase in gross premiums written. Due to high natural catastrophe losses, the combined ratio amounted to 99.6% (105.6%) of net earned premiums and was therefore above the target value from the beginning of the year (96%). The segment generated a substantially higher profit: €2,003m (571m). Claims costs for major losses totalled €4,304m (4,689m). Man-made major losses amounted to €1,165m (3,784m), and major losses from natural catastrophes rose to €3,139m (906m).

In life and health reinsurance, pandemic-related losses, at €785m (370m), continued to be extremely high. The segment contributed €325m (123m) to the consolidated profit. The technical result, including insurance contracts with non-significant risk transfer (which are not recognised in the technical result), amounted to €218m (97m). In response to the high COVID-19-related losses, particularly in the USA, India and South Africa, in October 2021 we had adjusted the projected profit target for life and health reinsurance from roughly €400m to €200m.

In the ERGO field of business, we enjoyed a year-on-year improvement in profit to €605m (517m). Premium income climbed in all three segments, with the Property-casualty Germany segment posting very pleasing growth that outperformed the market. The ERGO Property-casualty Germany segment reported a profit of €234m (157m) – buoyed by a high technical result and increased investment result, major losses notwithstanding. We also posted substantial profit growth in the segment ERGO Life and Health Germany. The increase to €164m (130m) was primarily due to the good technical result – driven by improvements in health business and far better claims experience in travel insurance than expected – and to an improved currency result, which more than offset a lower investment result. The ERGO International segment reported a profit of €207m (230m), chiefly due to an improved technical result. The year-on-year decrease was attributable to a positive one-off effect in 2020.

Munich Re’s investment result (excluding insurance-related investments) was €7,156m (7,398m). Overall, this represents a return of 2.8% (3.0%) on the average market value of the portfolio.

Comparison of the prospects for 2021 with the result achieved

Munich Re

Comparison of prospects for Munich Re in the 2020 annual report with results achieved

		Target 2021	Adjustment 2021	Result 2021
Gross premiums written	€bn	55	58	59.6
Technical result life and health reinsurance[1]	€m	400	200	218
Combined ratio property-casualty reinsurance	%	96	100	99.6
Combined ratio ERGO Property-casualty Germany	%	92	92	92.4
Combined ratio ERGO Property-casualty International	%	93	93	92.9
Return on investment[2]	%	Over 2.5	Over 2.5	2.8
Consolidated result	€bn	2.8	2.8	2.9
Economic earnings	€bn	Over 2.8	Over 2.8	8.1

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

Like its predecessor, the year 2021 was marked by the global coronavirus pandemic and far-reaching restrictions on private, public and economic life. We continue to face enormous social, economic and business challenges.

Protecting the health of our staff, their families and our business partners remains our highest priority. We are using appropriate models such as flexible working hours and home working in order to secure our business operations.

The adjustments to the targets originally forecast for the year 2021 are primarily the result of high losses from natural catastrophes and changed loss expectations in connection with COVID-19. There was a positive development in our business opportunities, which led to increased premium income. As a result, we were able to increase the target values for gross premiums written in the first half of the year. In the third quarter, we had to reduce the projected value for the technical result including the result from insurance contracts with non-significant risk transfer in life and health reinsurance; the projection for the combined ratio in property-casualty reinsurance was increased.

At the beginning of the year, we had projected gross premium income of around €55bn for Munich Re for the 2021 financial year. After pleasing performance in the first six months, especially the considerable gains in property-casualty reinsurance, we raised our forecast to around €58bn. With gross premium income of €59.6bn, we surpassed our target by around €1.6bn.

At the beginning of the financial year, we had projected a consolidated result of around €2.8bn. Despite the ongoing pandemic and extreme weather events particularly in America and Europe, we were able to exceed our profit target with a figure of €2.9bn, thanks to the pleasing and continued operational performance of our segments, a high investment result, and a positive trend in the currency result.

The 2021 investment result generated an overall return of 2.8% in relation to the average market value of our portfolio. Accordingly, we easily surpassed our target return on investment of more than 2.5%. We were able to more than offset lower regular income and a reduced net balance of derivatives, thanks to lower impairment losses on our equity portfolio and higher gains from the disposal of fixed-interest securities and equities.

For the 2021 financial year, we had set the target for economic earnings at over €2.8bn. The economic earnings in 2021 totalled €8.1bn despite the major-claims burden, which, due to losses from natural catastrophes and COVID-19, was higher than expected. These adverse effects notwithstanding, in both fields of business the contribution from new business and the variances from in-force business were positive. In terms of market variances, especially the appreciation of foreign currencies against the euro and the increase in share prices and inflation had a favourable impact on economic earnings.

Reinsurance

At the beginning of the financial year, we had forecast gross premiums written of around €37bn in the reinsurance field of business. Following pleasing performance in the first two quarters, we raised the forecast to around €40bn. Despite negative currency effects, at €41.4bn we were able to surpass this higher target value. We saw significant growth, predominantly in property-casualty reinsurance, thanks to an expansion of existing business across almost all lines and regions. The main drivers were the expansion of, and new business with, selected clients in North America and selective growth in continental Europe (primarily in France), in South America and Asia as well as in Australia.

At the beginning of the year, we had projected a technical result, including the result from insurance contracts with non-significant risk transfer, of €400m in life and health reinsurance. In response to high losses resulting from COVID-19, this figure had to be adjusted downwards to around €200m in the third quarter. COVID-19-related losses in life and health reinsurance amounted to €785m. These losses chiefly came from mortality covers in the USA, India and South Africa.

At the beginning of the financial year, our declared goal was to achieve a combined ratio of 96% of net earned premiums in property-casualty reinsurance. Due to the high losses from natural catastrophes in the quarter, upon publication of the third-quarter results we retracted this target, raising it to 100%. At the end of the reporting year, the ratio was, at 99.6%, slightly better than the revised target. Amounting to 16.5% of net earned premiums, major-loss expenditure significantly exceeded our expectation of 12%. Expenditure totalled €1,165m (3,784m) for man-made major losses, including€212m (previous year: slightly more than €3bn) for COVID-19.

For reinsurance as a whole, at the beginning of the year we had projected a consolidated result of €2.3bn, a target that we reached with €2.328bn.

ERGO

For the ERGO field of business, at the beginning of the year we had projected gross premiums of just over €17.5bn. With €18.2bn, we surpassed this target.

At the beginning of the year, we forecast a combined ratio of around 92% in the ERGO Property-casualty Germany segment – provided major losses remained within normal bounds. Despite the loss expenditure from natural catastrophes, at the end of the financial year we met our target with a combined ratio of 92.4%.

Also at the beginning of the year, we had aimed for a combined ratio of around 93% in the segment ERGO International, provided major losses remained within normal bounds. Major losses in the Baltic and Austria were compensated for by the continuing positive development in operational performance, particularly in Poland and Spain, which allowed us to achieve our target with a pleasing combined ratio of 92.9%.

We generated a result for the year of €605m, thus surpassing the profit target of around €500m which we had announced at the beginning of the year. For the ERGO field of business, we had projected at the beginning of the year that the impact on the result caused by the coronavirus pandemic would amount to between €90m and €100m. But thanks to better development in Germany, particularly in travel insurance, there was merely immaterial expenditure of €5m (64m) in the financial year. Negative effects primarily involved the joint venture in India. All segments contributed to performance that exceeded our expectations. We achieved a good technical result and an improved currency result in the ERGO Life and Health Germany segment. Despite the burden from major losses, we achieved a very good technical result and a higher investment result in the ERGO Property-casualty Germany segment. An improved technical result in the ERGO International segment contributed to the good profit.

Business performance of the Group and overview of investment performance

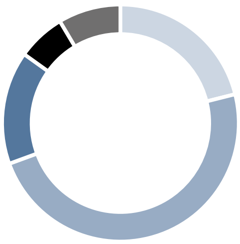
Key figures

		2021	Prev. year	Change
				%
Gross premiums written	€bn	59.6	54.9	8.5
Combined ratio				
Reinsurance property-casualty	%	99.6	105.6	
ERGO Property-casualty Germany	%	92.4	92.4	
ERGO International	%	92.9	92.7	
Technical result	€m	1,927	600	221.0
Investment result	€m	7,156	7,398	–3.3
Insurance-related investment result	€m	1,119	105	966.1
Operating result	€m	3,517	1,986	77.1
Currency result	€m	262	–200	–
Taxes on income	€m	–552	–269	–105.0
Economic earnings	€bn	8.1	–2.2	–
Solvency II ratio	%	227.0	208.1	
Return on equity (RoE)[1]				
Group	%	12.6	5.3	
Reinsurance	%	13.5	4.1	
ERGO	%	10.1	8.8	
Consolidated result	€m	2,932	1,211	142.1
Investments	€bn	240.3	232.9	3.2
Insurance-related investments	€bn	12.3	11.0	11.3
Net technical provisions	€bn	234.0	221.5	5.7
Equity	€bn	30.9	30.0	3.2
Earnings per share	€	20.93	8.63	142.5
Dividend per share	€	11.00	9.80	12.2

1 Information on the calculation of this indicator can be found in the Notes to the consolidated financial statements, in the section "Segment reporting – Notes on determining the return on equity (RoE)".

Munich Re's gross premiums written, at €59,567m, were significantly higher year on year (€54,890m). This was mainly due to organic growth in the property-casualty reinsurance segment.

Group premium income



	Life and health reinsurance	21%	(23%)
	Property-casualty reinsurance	48%	(45%)
	ERGO Life and Health Germany	15%	(16%)
	ERGO Property-casualty Germany	7%	(7%)
	ERGO International	9%	(9%)

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. Despite the fact that expenditure from major losses was in excess of expectations, favourable operational value creation in reinsurance and primary insurance, paired with positive market variances, had a significant impact on economic earnings in the financial year. In terms of market variances, especially the appreciation of important foreign currencies against the euro and the effects of favourable trends in equity markets and inflation had a positive impact.

The investment result (excluding insurance-related investments) fell slightly year on year to €7,156m (7,398m). Net profits from the disposal of non-derivative investments were lower overall than in the previous year – primarily due to the sale of equities and to normal restructuring concerning portfolios of fixed-interest securities, against the backdrop of persistently low interest rates. Regular income from investments was down slightly.

The currency result increased to €262m (–200m), mainly owing to currency gains against the US dollar and the Indian rupee. Our effective tax rate amounted to 15.9% (18.2%), which was lower than in the previous year owing to tax-free effects on our investments.

In September, Munich Re issued its second subordinated green bond, with the volume issued amounting to €1bn. This bond will mature on 26 May 2042 and is callable for the first time in 2031. It pays a fixed rate of 1.00% p.a. until 26 May 2032, and a variable rate thereafter. In addition, the green bond meets the criteria for classification as regulatory Tier 2 capital under Solvency II, as well as the current requirements for full recognition as rating capital. Munich Re will use the capital thus raised to finance or refinance suitable projects in accordance with our Green Bond Framework. Please see the section "Sustainability in investment and insurance" of our combined non-financial statement for details.

In accordance with the terms of Munich Reinsurance Company's subordinated bond 2011/2041, we exercised our call option and repurchased the bond in Q2; it had a nominal volume of €1bn and paid a fixed rate of 6.00% p.a.

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

Investment mix

	Carrying amounts		Unrealised gains/losses[1]		Fair values	
€m	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year
Land and buildings, including buildings on third-party land	7,029	6,539	6,291	5,592	13,320	12,131
Investments in affiliated companies, associates and joint ventures	3,635	3,372	2,812	1,584	6,258	4,841
Loans	50,389	51,944	8,270	12,778	58,659	64,722
Other securities available for sale	162,468	155,389	12,967	17,293	162,468	155,389
Thereof: Fixed-interest	138,209	138,404	8,078	14,426	138,209	138,404
Thereof: Non-fixed-interest	24,259	16,985	4,888	2,866	24,259	16,985
Other securities at fair value through profit or loss	2,950	2,927	0	0	2,950	2,927
Thereof: Derivatives	1,718	2,339	0	0	1,718	2,339
Deposits retained on assumed reinsurance	9,027	7,980	0	0	9,027	7,980
Other investments	4,803	4,800	0	0	4,803	4,800
Total	**240,300**	**232,950**	**30,340**	**37,247**	**257,485**	**252,789**

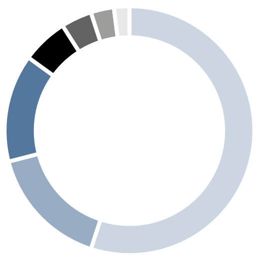
1 Including on- and off-balance-sheet unrealised gains and losses.

The fair value of our investment portfolio increased slightly, mainly as a result of a larger equity portfolio and the development of exchange rates. This was offset mainly by higher interest rates. Our portfolio continues to be dominated by fixed-interest securities and loans.

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

Fixed-interest portfolio by economic category[1]

Total: €209bn (215bn)



	Government bonds[2]	55%	(55%)
	Thereof: Inflation-linked bonds	8%	(7%)
	Covered bonds	16%	(18%)
	Corporate bonds	14%	(14%)
	Cash/Other	6%	(5%)
	Policy and mortgage loans	4%	(4%)
	Structured products (credit structures)	3%	(2%)
	Bank bonds	2%	(2%)

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

At the reporting date, over half of our portfolio of interest-bearing securities was invested in government bonds. The vast majority of these continue to come from countries with a high credit rating. Our German and US government bond holdings at fair value constituted 11.9% (13.1%) and 10.8% (9.2%) of the portfolio of interest-bearing securities. Italian and Spanish government bonds each accounted for around 0.7% (0.8%) and 1.8% (1.9%) of the portfolio of interest-bearing securities. Our new investments in the reporting year were mostly in US and Australian government bonds. We mainly reduced our bond holdings from issuers in Germany in the reporting year. The purchase of government bonds from emerging markets is part of our balanced investment strategy. They constituted 9.2% of our government bond portfolio.

At around 30%, our investment in covered bonds remained focused on German securities. We also held bonds from France (22%) and the United Kingdom (11%) in our portfolio.

The regional weighting of corporate bonds in our portfolio was 32% for the USA and 40% for the eurozone.

Our portfolio of government bonds, covered bonds and corporate bonds had a good rating structure: as at 31 December 2021, some 81% of securities were rated AAA to A.

Our investment in bank bonds is limited and at the reporting date amounted to 2% of our portfolio of interest-bearing securities. Financial instruments from states in southern Europe made up 4% of this portfolio. Most of our bank bonds were senior bonds (92%), i.e. bonds that are not subordinated or subject to loss participation. Subordinated bonds and loss-bearing bonds made up 8% of our bank bond holdings.

The portfolio of structured credit products at fair value totalled 3% of the overall portfolio of interest-bearing securities as at the reporting date. This asset class is composed of securitised receivables (asset-backed securities or mortgage-backed securities), e.g. securitisations of real estate finance or consumer credit. Around 52% of our structured credit products had a rating of AAA.

The carrying amount of our equity portfolio increased due to the purchase of equities and the 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 8.7% (6.4%) at the end of the year. The equity-backing ratio including derivatives was 7.7% (6.0%). 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 €9.3bn (8.5bn). Real and financial assets such as shares, property and commodities, as well as 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]

	2021	RoI[2]	Prev. year	RoI[2]
	€m	%	€m	%
Regular income	6,017	2.4	6,273	2.5
Write-ups/write-downs of non-derivative investments	–505	–0.2	–1,957	–0.8
Gains/losses on the disposal of non-derivative investments	3,182	1.3	3,698	1.5
Net balance of derivatives	–774	–0.3	74	0.0
Other income/expenses	–764	–0.3	–690	–0.3
Total	**7,156**	**2.8**	**7,398**	**3.0**

1 Details of the result by type of investment are shown in the Notes to the consolidated financial statements, (34) Investment result.
2 Annual % return on the mean value of the investment portfolio (RoI) measured at market value as at the quarterly reporting dates. The overall investment portfolio used to determine the return for 2021 (2.8%) was calculated as the mean value of the investment portfolios (carrying amounts) as at 31 December 2020 (€232,950m), 31 March 2021 (€231,565m), 30 June 2021 (€233,961m), 30 September 2021 (€236,668m) and 31 December 2021 (€240,300m), and the off-balance-sheet unrealised gains and losses (excluding owner-occupied property and insurance-related loans) as at 31 December 2020 (€19,839m), 31 March 2021 (€17,142m), 30 June 2021 (€16,636m), 30 September 2021 (€16,215m) and 31 December 2021 (€17,185m).

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

We posted considerably lower net write-downs of non-derivative investments year on year; Q1 of 2020 had been particularly impacted by pandemic-related impairment losses on equities owing to price falls.

Gains on disposal were lower overall than in the previous year, and chiefly related to our portfolio of fixed-interest securities and equities. These gains include the reduction of our stake in a strategic shareholding.

We posted a net loss from write-downs and write-ups of derivatives and from the disposal of derivatives, primarily due to losses from equity and interest-rate derivatives held for hedging purposes.

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

Result from equities and equity derivatives[1]

€m	2021	Prev. year
Regular income	974	735
Impairment losses	–334	–1,750
Realised gains/losses	1,302	1,077
Result from equities	**1,942**	**62**
Change in on-balance-sheet unrealised gains and losses in equity (gross)	2,022	–766
Result from equity derivatives	–553	–425
Total	**3,411**	**–1,129**

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 2020 (€16,985m), 31 March 2021 (€20,223m), 30 June 2021 (€22,116m), 30 September 2021 (€22,511m) and 31 December 2021 (€24,259m).

The return on equities was affected by the increase in valuation reserves in the financial year. The return on our equity portfolio including equity derivatives increased to 16.1% (–6.8%).

Reinsurance – Life and health

Key figures

		2021	Prev. year	Change
				%
Gross premiums written	€m	12,561	12,707	−1.1
Share of gross premiums written in reinsurance	%	30.4	34.0	
Technical result incl. result from insurance contracts with non-significant risk transfer	€m	218	97	124.2
Investment result	€m	860	846	1.7
Operating result	€m	344	225	52.8
Consolidated result	€m	325	123	164.4

Premium

Negative currency translation effects had an impact on the development of premiums. We write the majority of our business in non-euro currencies (around 85%). Exchange rate fluctuations therefore have a substantial impact on premium development. If exchange rates had remained unchanged, our gross premiums written would have decreased slightly by 0.6% compared with the previous year. The decline is mainly attributable to our business in Asia, where a number of treaties were terminated or not renewed. This was partly offset by growth in North America. The stagnating premium development particularly reflected the fact that, although our portfolio of financially motivated reinsurance continues to grow, the majority of new treaties are not posted as income in underwriting.

Result

The technical result of −€9m (−78m) was below our original expectations for the year, owing to higher claims expenditure resulting from COVID-19.

Overall, losses attributable to COVID-19 totalled €785m (370m). This figure comprises losses incurred in the reporting year, including provisions for losses incurred but not reported. There is no provision included for future expected losses.

The COVID-19 expenditure is dominated by mortality covers in the USA, India and South Africa. In addition, the expenditure in Canada was in the mid-double-digit million euro range. In the United Kingdom, losses in mortality business were largely offset by positive effects in our longevity business. We also posted moderate losses caused by COVID-19 in continental Europe and Latin America, as well as in a part of Asia. We saw positive effects in Australia, where we were able to reduce reserves for COVID-19 because the expected IBNR losses were not realised.

Without the exceptional expenditure attributable to COVID-19, the technical result would have been significantly higher than we projected at the beginning of the year.

A positive impact mainly derived from our annual review of provisions. In addition, there were increases in premium for Australian disability business, as well as a one-off effect from a large North American reinsurance treaty. Furthermore, the termination of a number of contracts led to positive one-off effects.

Adjusted for COVID-19, claims expenditure was within our anticipated range. Whereas we benefited from favourable claims development in Europe, Asia and Australia, the COVID-19-adjusted claims expenditure in North America and South Africa was higher than expected. In North America, this increase was partly attributable to high individual losses.

The result from insurance contracts with non-significant risk transfer continued to perform very favourably. At €227m (175m), the result was significantly higher than in the same period last year as a consequence of business growth, in particular in Asia and the USA. Those contracts have thus reaffirmed their stabilising impact on the overall result.

The investment result was up by €14m on the previous year; the increase was primarily due to higher gains on the disposal of equities, as well as income from the remeasurement of existing shares held following the expansion of our stake in GHGH Holdings Inc., Surrey (GroupHEALTH).

Our individual core markets

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

Gross premium in the USA increased to about €3.1bn (2.9bn) despite negative currency translation effects. We therefore continue to be one of the most important reinsurers in this market, which is the largest worldwide. Due to higher COVID-19-related loss expenditure, the technical result was lower than expected. The negative COVID-19-adjusted claims experience was largely offset by positive effects resulting from the annual review of our reserve position. We continue to be very satisfied with the development of our new business, both in terms of volume and profitability.

At €1.8bn (1.8bn), our premium income in Canada was unchanged. The technical result, in turn, accounted for an over-proportionate contribution to the overall result. COVID-19 losses were higher than expected. However, this was offset by positive one-off effects, including on our claims reserves due to interest-rate changes and the one-off adjustment of a large treaty.

At €3.3bn (3.3bn), premium income in Europe also remained unchanged year on year, with €1.5bn (1.5bn) deriving from the United Kingdom and Ireland, and a further €697m (715m) from Germany. The technical result slightly exceeded our expectations, despite COVID-19-related loss expenditure.

Premium income in Asia/MENA decreased to €3.2bn (3.4bn), primarily due to the termination of several treaties. The majority of our new contracts in the area of financially motivated reinsurance are posted outside underwriting, which also had an impact on premium development. New business, on the other hand, was at a very gratifying level. Thanks to our broad diversification, we are in a position to benefit from the region's growth potential. The technical result – adjusted for COVID-19 losses – developed favourably and exceeded our expectations.

Premium generated by our business activities in Australia and New Zealand was up slightly to €871m (824m). This increase was supported by positive currency translation effects and reflected the influence of price increases under contracts in force. Our main focus here remains the rehabilitation of our existing portfolio. The technical result significantly exceeded our expectations; among other things, we benefited from positive effects from our rehabilitation measures and the generally favourable performance of our portfolio. The effect of COVID-19 on the result was also positive, as we were able to reduce provisions.

Reinsurance – Property-casualty

Key figures

		2021	Prev. year	Change
				%
Gross premiums written	€m	28,793	24,615	17.0
Share of gross premiums written in reinsurance	%	69.6	66.0	
Loss ratio	%	68.7	74.7	
Thereof: Major losses	Percentage points	16.5	20.8	
Expense ratio	%	30.9	30.9	
Combined ratio	%	99.6	105.6	
Technical result	€m	972	–171	–
Investment result	€m	2,562	2,347	9.2
Operating result	€m	2,352	759	209.7
Consolidated result	€m	2,003	571	250.8

Premium

Premium income in property-casualty reinsurance increased by 17.0% compared with the previous year, although changes in exchange rates had a negative impact on premium development. Approximately 11% of the portfolio is written in euros and 89% in foreign currency, of which 56 percentage points is in US dollars and 11 percentage points in pounds sterling. If exchange rates had remained unchanged, premium volume would have risen by 19.5% year on year.

The substantial increase in premium volume was due to an expansion of business across almost all lines and regions. The main drivers were the expansion of, and new business with, selected clients in North America and selective growth in continental Europe (primarily in France and Germany), as well as in South America, Asia and Australia.

Reinsurance treaty renewals in 2021 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, during the 2021 renewals the supply of reinsurance capacity remained high, and the risk-adjusted price increase amounted to approximately 2.3%. Overall, we are adhering to our profit-oriented underwriting policy.

Result

The consolidated result and the operating result in property-casualty reinsurance improved significantly compared with the previous year, despite high natural hazard losses. The main reason is that the result in 2020 had been severely impacted by COVID-19-related losses in cancellation-of-events business. Expenditure for major losses was down, and the technical result increased significantly on the previous year. As a result of our customary review of provisions, we were able to reduce our basic claims provisions for prior years – adjusted for commissions – by €1,041m for the full year, which is equivalent to 4.0 percentage points of the combined ratio. This positive development related to almost all lines in our portfolio. The safety margin in the provisions remained unchanged year on year.

Major losses – in excess of €10m each – totalled €4,304m (4,689m) in 2021, after retrocession and before tax. This amount includes run-off profits and losses for major claims from previous years, and is equivalent to 16.5% (20.8%) of net earned premium. Despite high natural hazard losses, expenditure was much lower than in the previous year – which had been negatively impacted by COVID-19 losses – but once again exceeded our major-loss expectation of 12% of net earned premium.

Man-made major losses totalling €1,165m (3,784m) were down significantly on the previous year, which had been hit by COVID-19 losses. This figure is equivalent to 4.5% (16.8%) of net earned premium. The number of losses above our major-loss threshold was much higher than in the previous year.

Major losses from natural catastrophes totalled €3,139m (906m) for the full year 2021. This corresponds to 12.0% (4.0%) of net earned premium. The largest natural catastrophes of the year happened in the USA and in Europe, the largest individual loss being Hurricane Ida with anticipated expenditure in the region of €1,200m, followed by flood events in Europe (especially Storm Bernd in Germany) with anticipated expenditure of €464m. There were also a number of winter storms and tornadoes in the USA.

The combined ratio improved significantly to 99.6% (105.6%) on account of lower major-loss expenditure in 2021. Paid claims and the change in claims provisions totalled €17,920m (16,860m), along with net operating expenses of €8,054m (6,978m), compared with net earned premiums of €26,071m (22,566m).

The investment result increased by €215m on the previous year, largely owing to an improved net balance of write-ups and write-downs, as well as higher gains on the disposal of equities. These gains included the reduction of our share in a strategic holding.

Our individual core markets and selected special lines

Based on premium volume, around 45% of our global property-casualty reinsurance business – including Risk Solutions – is written in North America. Around 30% of our premium comes from Europe, of which around half is generated in the United Kingdom. Further substantial shares were contributed by Asia (about 10%), as well as Australia/New Zealand, Africa and Latin America (approximately 5% each).

Prices in the US market improved significantly on account of the many loss events. Major losses from natural catastrophes – such as Hurricane Ida, winter storms, wildfires and tornadoes – exceeded the long-term average in 2021.

Reinsurance business grew at Munich Reinsurance America, Inc. in 2021 thanks to attractive prices, and we significantly expanded our business relationship with one client through a large-volume treaty. Our primary insurance unit Munich Re Specialty Insurance also expanded its business. Overall, premium volume totalling €5,867m was up significantly on the previous year (€4,138m).

The premium income of the Hartford Steam Boiler Group (HSB Group) amounted to €1,371m and was once again up on the previous year (€1,179m). This increase is mainly attributable to growth generated not only with new products, but also with our core business. The result was once again very favourable. American Modern also posted a rise in premium income to €1,472m (1,252m) owing to higher prices and new business. The result situation fell short of expectations due to natural hazard losses, such as winter storms, Hurricane Ida and tornadoes.

In Canada, we are represented by the Munich Reinsurance Company of Canada and Temple Insurance Company. Premium volume was expanded to €491m (428m). The result for 2021 was positive, in spite of flood losses.

Notwithstanding the still-difficult market environment, premium volume increased significantly year on year to €9,032m (8,299m) in the United Kingdom and in continental Europe. In many markets, the increase was driven by the targeted development of business with selected clients and additional profitable new business. In line with our strategic orientation, a high growth rate was achieved in France, where premium income increased to €459m (398m). In Germany, premium income rose to €888m (752m).

At our Swiss subsidiary, New Reinsurance Company Ltd., business volume in property-casualty business increased markedly to €1,017m (816m). This growth benefited from the expansion of existing client relationships and profitable new business with traditional and, in particular, structured products.

Premium in Australia and New Zealand once again increased significantly overall, to €1,273m (1,073m).

Premium income in Japan was up slightly year on year: following two years of heavy losses in 2018 and 2019, it totalled €593m (578m).

Business expanded greatly again in China, where premium income amounted to €1,017m (885m).

India continued on its path to growth, with premium income climbing to €577m (427m).

In the Caribbean as well as in Central and South America, we still provide high capacity for the coverage of natural hazards, in particular windstorms and earthquakes. The increased demand owing to major losses from natural catastrophes (hurricanes, floods, earthquakes and wildfires) in recent years remained at a high level in 2021. We took systematic advantage of this situation to further improve our portfolio. This enabled us to grow the already high premium volume attained in recent years to €1,456m (1,244m) and to achieve a further margin improvement.

In agricultural reinsurance, we saw a significant increase in premium income to €500m (397m) in the North American market, due mainly to a rise in sums insured. Our good result in the USA was negatively impacted by a catastrophic event (drought) in Canada.

Supported by a positive market environment, total premium volume in marine business increased by around 13% to €1,315m (1,165m). The result was gratifying.

At €946m (849m), credit and bond reinsurance saw significant year-on-year growth in premium volume. Whilst traditional credit business generated a moderate rise, growth was mainly attributable to profitable new business in specialty and niche segments.

The market environment in direct industrial insurance continues to be very attractive. Renewals in the market were marked by price increases and new business. We were therefore able to substantially increase premium income in direct business generated by our Facultative & Corporate unit to €1,524m (1,199m). Despite Hurricane Ida and the winter storms in North America, the result was good.

Premium in aviation and space business grew to €779m (734m). Despite the loss of earnings triggered by COVID-19, premium was up thanks to price increases. The result was pleasing.

Our Capital Partners division offers clients a broad range of structured individual reinsurance and capital market products, as well as parametric and derivative solutions to hedge against weather and other risks. These solutions are applied to clients from the agricultural sector as well. We also use Capital Partners' services for our own purposes in order to buy retrocession cover on the basis of our defined risk strategy. In the reporting year, we concluded client transactions worth around than €2.5bn in the area of structured reinsurance. In line with the corporate retrocession strategy implemented by Capital Partners, we have in place a comprehensive traditional retrocession programme totalling almost US$ 600m and two sidecar transactions worth around US$ 600m.

ERGO Life and Health Germany

Key figures

		2021	Prev. year	Change
				%
Total premium income[1]	€m	9,909	9,687	2.3
Gross premiums written	€m	9,203	9,030	1.9
Share of gross premiums written by ERGO	%	50.5	51.4	
Technical result	€m	349	353	-1.2
Investment result	€m	3,201	3,605	-11.2
Operating result	€m	202	448	-54.9
Consolidated result	€m	164	130	25.5

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

Premium

For the ERGO Life and Health Germany segment, information about the German life, health and Digital Ventures operations is provided below. Approximately 60% of the segment's gross premiums written derives from Health Germany, around 31% from Life Germany and approximately 9% from Digital Ventures.

Gross premiums written in the segment were up in the 2021 financial year, chiefly driven by positive development in Health Germany, especially in travel and supplementary insurance. In the previous year, we had posted a COVID-19-related decline in travel insurance. We also saw premium growth in Digital Ventures, especially from health business, as well as from the new products in Life Germany. The segment's total premium income was also up on the previous year.

Result

The technical result in the ERGO Life and Health Germany segment was almost at the same level as in the previous year, benefiting from this year's good operational development in the Health Germany division. The investment result was down year on year, partly because of a lower net balance of derivatives owing to market conditions, as well as lower net gains on disposal.

The increase in the consolidated result was mainly attributable to an improved technical result in Health Germany and a higher currency result.

Development of premium income and results by division

Life Germany

Key figures

	2021	Prev. year	Change
	€m	€m	%
Total premium income[1]	3,540	3,515	0.7
Gross premiums written	2,834	2,858	-0.8
Technical result	9	23	-60.3
Operating result	36	232	-84.4

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.

Gross premiums written in 2021 were nearly at the same level as in the previous year. Lower regular premium income owing to the ongoing portfolio reduction was essentially offset by premium income from new products. Total premium income was slightly up on the previous year's level. Regular-premium new business and single-premium new business rose significantly year on year, as the new products were received very well by customers. We posted pleasing growth 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

	2021	Prev. year	Change
	€m	€m	%
Regular premiums	205	180	14.0
Single premiums	616	525	17.2
Total	**821**	**705**	**16.4**
Annual premium equivalent[1]	267	232	14.7

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

The technical result was down year on year, largely because of higher costs at ERGO Vorsorge due to business growth. The investment result totalled €2,066m (2,567m) in the past financial year; the decline was partly triggered by a lower net balance of derivatives on equities and fixed-interest securities owing to market conditions, which was not offset by gains on disposal. Instead, we built up valuation reserves on equities. The operating result decreased overall, partly on account of policyholder participation in the significantly higher currency result.

Health Germany

Key figures

	2021	Prev. year	Change
	€m	€m	%
Gross premiums written	5,513	5,372	2.6
Technical result	283	225	25.7
Operating result	155	169	–8.4

Gross premiums written in the Health Germany division, which also includes travel insurance business, were up year on year. Premium income grew by 4.0% in supplementary health insurance and by 1.0% in comprehensive health insurance. The growth in supplementary insurance was mainly attributable to business not similar to life insurance, which increased by 8.8%. The increase in comprehensive cover was partly due to premium adjustment. Travel insurance, which was up 14.5% to €442m (386m), also contributed to premium growth in the Health Germany division. Travel insurance premium grew appreciably in the past financial year as the previous year had still been severely affected by travel restrictions due to the coronavirus pandemic.

The technical result was up on the previous year, thanks to good operational development in health and significant improvement in travel insurance business. The investment result climbed to €1,127m (1,041m), in particular thanks to much lower impairment losses on equities. The operating result was slightly down year on year, above all due to policyholder participation in the significantly higher currency result.

Digital Ventures

Key figures

	2021	Prev. year	Change
	€m	€m	%
Gross premiums written	855	800	6.9
Technical result	56	104	–46.1
Operating result	11	47	–76.4

Gross premiums written were up year on year. The increase was partly attributable to health insurance business, which grew by 6.3%, chiefly driven by supplementary dental insurance. Gross premiums written in property-casualty business were also up, by 8.5% compared with the previous year.

At 90.1%, the 2021 combined ratio for property-casualty business was down 4.6 percentage points on the previous year (94.7%), in particular on account of an improved loss ratio.

The technical result decreased compared with the previous year, which had benefited from a temporary decline in expenses for claims and benefits in health insurance, among other factors. The investment result improved to €8m (–3m), chiefly on account of lower impairment losses. Altogether, the operating result decreased as a result of these developments.

ERGO Property-casualty Germany

Key figures

		2021	Prev. year	Change
				%
Gross premiums written	€m	3,919	3,677	6.6
Share of gross premiums written by ERGO	%	21.5	20.9	
Loss ratio	%	62.6	61.9	
Expense ratio	%	29.8	30.5	
Combined ratio	%	92.4	92.4	
Technical result	€m	302	294	2.7
Investment result	€m	209	175	19.3
Operating result	€m	354	255	38.7
Consolidated result	€m	234	157	48.5

Premium

With regard to the segment's gross premiums written, our most important classes of business were fire and property insurance and motor insurance – accounting for around 19% each – as well as third-party liability insurance (about 18%).

Gross premiums written were significantly up on the previous year. The increase was mainly attributable to growth in the other classes of business, especially in engineering, of 24.6%, marine (15.2%), and third-party liability (14.8%). Growth in gross premiums written was also posted in motor insurance (3.0%), fire and property insurance (1.6%) and legal protection insurance (1.5%). By contrast, gross premiums written in personal accident insurance were down by 2.3%.

Result

The technical result improved despite major losses from natural catastrophes and man-made losses, chiefly thanks to good organic premium growth, improved operational performance above all in third-party liability and marine insurance, and ongoing strict cost management.

The combined ratio for 2021 remained at its very good last year's level. While the expense ratio improved year on year, the 2021 loss ratio was impacted in particular by higher losses from natural catastrophes and man-made losses. Paid claims and the change in claims provisions totalled €2,357m (2,209m), along with net operating expenses of €1,122m (1,088m), compared with net earned premiums of €3,764m (3,569m).

The investment result increased significantly compared with the previous year, partly thanks to one-off effects from private equity and property investments. Moreover, the previous year had been impacted by higher impairment losses on equities due to the coronavirus pandemic.

The consolidated result was up on the previous year mainly on account of the higher investment result and improvements in the other operating result.

ERGO International

Key figures

		2021	Prev. year	Change
				%
Total premium income[1]	€m	5,339	5,083	5.0
Gross premiums written	€m	5,092	4,861	4.7
Share of gross premiums written by ERGO	%	28.0	27.7	
Loss ratio	%	62.4	62.7	
Expense ratio	%	30.5	30.0	
Combined ratio	%	92.9	92.7	
Technical result	€m	313	202	54.6
Investment result	€m	324	425	–23.7
Operating result	€m	266	298	–10.9
Consolidated result	€m	207	230	–9.7

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 58%, health for about 30% and life insurance for approximately 12%. Our biggest markets are Poland, accounting for approximately 34% of the premium volume, and Spain and Belgium, accounting for approximately 18% each.

Gross premiums written increased year on year, chiefly thanks to strong premium growth in Poland and positive development in international health and legal protection business. Adjusted to eliminate negative currency translation effects and the disposal of a foreign subsidiary, gross premiums written in the ERGO International segment would have increased by 6.3% compared with the previous year. The segment's total premium income was also up on the previous year.

In international property-casualty business, gross premiums written rose by 8.3% to €2,939m (2,714m). We posted significantly higher premiums particularly in Poland and in international legal protection business. In Poland, premiums grew across nearly all classes of business.

As a result of organic growth in our Belgian and Spanish markets, gross premiums written were up in international health business. In Spain, we sold our shareholding in Marina Salud in 2021. Gross premiums written in international health business rose by 2.0% to €1,538m (1,509m) in the financial year.

At €614m (639m), gross premiums written in international life insurance business were down by 3.8% on the previous year. Negative development in Belgium, where we stopped writing new business in 2017, but above all lower gross premiums written in Austria contributed to this outcome. By contrast, we posted pleasing premium growth in Poland. Total premium income of €862m remained constant year on year (€861m).

New business Life International

	2021	Prev. Year	Change
	€m	€m	%
Regular premiums	68	64	7.4
Single premiums	112	96	16.6
Total	**180**	**159**	**13.0**
Annual premium equivalent[1]	80	73	8.6

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

Result

The technical result improved significantly compared with the previous year, chiefly on account of an increase in international health and life insurance business in Belgium, and better performance of property-casualty business in Poland and Greece.

In international property-casualty business, the combined ratio remained almost stable year on year. It improved by 1.3 percentage points in Poland and by 8.3 percentage points in Greece. By contrast, we posted higher combined ratios in Austria, driven by higher losses from weather events, and in the Baltic states, due to major losses. Paid claims and the change in claims provisions totalled €2,163m (2,063m), along with net operating expenses of €1,056m (988m), compared with net earned premiums of €3,467m (3,289m).

The investment result was down on the previous year chiefly due to lower net income from our joint venture investments. Other drivers included a lower net balance of derivatives and lower net gains on disposal.

Overall, the consolidated result was down year on year due to a lower investment result, and also because the previous year had benefited from a one-off effect resulting from a merger of two shareholdings in India.

Financial position

Analysis of our capital structure

Our primary insurance and reinsurance operations have a significant influence on the structure of our balance sheet. In this context, investments serve to cover technical provisions (77% of the balance sheet total). Equity (10% of the balance sheet total) and bonds classified as strategic debt (2% of the balance sheet total) are the most important sources of funds.

Development of Group equity

	31.12.2021	Prev. year	Change
	€m	€m	%
Issued capital and capital reserve	7,432	7,432	0.0
Retained earnings	13,822	13,568	1.9
Other reserves	6,642	7,683	-13.5
Consolidated result attributable to equity holders of Munich Reinsurance Company	2,933	1,211	142.1
Non-controlling interests	116	100	15.9
Total	**30,945**	**29,994**	**3.2**

The higher Group equity is mainly attributable to the good consolidated result and a higher currency translation reserve. This was offset by the dividend payment and a decline in the valuation reserves for fixed-interest securities and equities.

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

		31.12.2021	Prev. year	Change
		€m	€m	%
Strategic debt[1]		5,348	5,320	0.5
Group equity		30,945	29,994	3.2
Total		**36,293**	**35,314**	**2.8**
Debt leverage	%	14.7	15.1	

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

Munich Re's subordinated liabilities amounted to €5,055m (see the section (19) Subordinated liabilities in the Notes to the consolidated financial statement]. Of this sum, €4,912m were recognised as at the reporting date as eligible own funds pursuant to Solvency II. Under the supervisory regulations of Solvency II, subordinated liabilities are recognised as own funds provided that they are available at all times to cover losses on a going-concern basis.

Technical provisions

Reinsurance business accounts for approximately 38% of technical provisions; around 62% comes from primary insurance. In contrast to liabilities under loans and securities issued, we cannot foresee with certainty how high our liabilities from underwriting business will be and when they will arise. This applies especially to reinsurance. Whereas in property insurance a major portion of the provisions is generally paid out within two to three years, in life or liability insurance substantial amounts may still be due decades after the contracts were concluded. The currency distribution of our provisions reflects the global orientation of our Group. Besides the euro, our main currencies are the US dollar, pound sterling, the Canadian dollar and the Australian dollar.

Restraints on disposal

Since we are an international (re)insurance group, some of our financial resources are subject to restraints on disposal. Supervisory authorities in some countries, for example, require foreign reinsurers to establish premium and reserve deposits to the benefit of primary insurers, or set up trustee accounts or guarantees with certain financial institutions. At the reporting date, restraints on disposal applied to investments with a volume of €11.4bn (10.1bn). In addition, there were contingent liabilities. Information on these can be found in the Notes to the consolidated financial statements under (48) Contingent liabilities, other financial commitments.

Capital position

Through active capital management, we strive to ensure that Munich Re's capital satisfies all applicable standards. In addition to the capital requirements determined using our internal risk model, more far-reaching requirements by regulatory authorities, rating agencies and our key insurance markets must be met. The Solvency II ratio is a fundamental measure of Munich Re's capital strength. Further information on this ratio can be found in the risk report. We aim to ensure that our financial strength is such that it enables us to take advantage of profitable opportunities for growth, is not significantly affected by normal fluctuations in capital market conditions, and remains at a reasonable level even in the wake of major loss events or substantial falls in the stock markets.

At the same time, we also define an appropriate level of Group own funds as one which does not lastingly exceed that which is required. Excess capital is returned to our shareholders via dividends and share buy-backs. In practice, capital repatriation comes up against limits because the German Commercial Code (HGB) obligates our parent, Munich Reinsurance Company, to conduct prudent accounting – with regard to the claims equalisation provision, for instance. This restricts the revenue reserves and profit distribution possibilities, but stabilises results in years with high claims expenditure. Additional information can be found under Munich Reinsurance Company (information reported on the basis of German accountancy rules).

Between 2006 and 2021, we returned a total of €32.0bn to our shareholders in the form of dividends and share buy-backs.

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

Composition of the subscribed capital

As at 31 December 2021, Munich Reinsurance Company's share capital of €587,725,396.48 was divided into 140,098,931 registered, no-par-value, fully paid shares. The rights and obligations deriving from these shares follow from the applicable statutory requirements and the Company's Articles of Association. With respect to the Company, the only parties deemed shareholders in accordance with Section 67 of the German Stock Corporation Act (AktG) are those entered as such in the Company's register of shareholders.

Restrictions on voting rights and the transfer of shares

The listed registered shares are subject to transfer restrictions. The issuing of restrictedly transferable registered shares by Munich Reinsurance Company dates back to the Company's foundation in 1880. Restricted transferability means that these shares may be transferred to another holder only with the Company's consent, which, according to Article 3(2) of Munich Reinsurance Company's Articles of Association, is granted at the Company's discretion. Since the share-trading processes have been made very efficient, the consent requirement does not lead to any delays in entry in the register. In recent decades, it has been granted without exception. Contractual agreements are in place with the members of the Board of Management providing for two-year or four-year minimum holding periods for the shares of the Company they had to purchase as part of share-based remuneration programmes under the remuneration system applicable prior to 2018. The minimum holding periods for these shares will end on 31 May 2022.

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

Shareholdings exceeding 10% of the voting rights

Munich Reinsurance Company has not been notified of, nor is it otherwise aware of, any direct or indirect shareholdings in the Company that exceeded 10% of the voting rights as at 31 December 2021.

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-quarters majority of the share capital represented in the vote. Where these resolutions are concerned, the Company's Articles of Association again do not provide for other (i.e. higher) majorities or further requirements. Pursuant to Article 14 of the Articles of Association and Section 179(1) sentence 2 of the Stock Corporation Act, the Supervisory Board is empowered to make amendments to the Articles of Association which affect only the wording.

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

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

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

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

- Under Article 4(1) of the Articles of Association, the Board of Management is authorised, with the consent of the Supervisory Board, to increase the Company's share capital at any time up to 27 April 2026 by an amount of up to €117.5m by issuing new registered, no-par-value shares against cash or non-cash contribution (Authorised Capital 2021). In accordance with the above-mentioned provisions of the Articles of Association, it may exclude subscription rights.

- Pursuant to Article 4(2) of the Articles of Association, a contingent increase in the share capital by up to €117m, consisting of new registered no-par-value shares

(Contingent Capital 2020), has been authorised. The purpose of this contingent capital increase is to permit shares to be granted to the holders of convertible bonds, bonds with warrants, profit participation rights or profit participation certificates (or combinations of such instruments) with conversion rights, warrants or conversion obligations, which are issued by the Company or a Group company in accordance with the authorisation granted by the Annual General Meeting on 29 April 2020 for the period from 29 April 2020 to the end of the day on 28 April 2025. The increase in the share capital is to be carried out only to the extent that warrants or conversion rights under the aforementioned instruments are exercised, or conversion obligations under these instruments are fulfilled, and insofar as other means of fulfilment are not introduced.

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

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

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

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

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

Analysis of the consolidated cash flow statement

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

Consolidated cash flow statement

	2021	Prev. year	Change
	€m	€m	%
Cash flows from operating activities	5,226	7,219	–27.6
Cash flows from investing activities	–3,818	–6,135	37.8
Cash flows from financing activities	–1,681	–323	–420.4
Cash flows for the financial year	**–273**	**761**	**–**

In the consolidated cash flow statement, the consolidated profit of €2,932m is used as the starting point for determining the cash inflows from operating activities. The consolidated result is also adjusted by €11,409m to take account of the higher technical provisions. The net gains on the disposal of investments – which in adjusting the consolidated profit have to be deducted from the cash flows – are essentially attributable to the disposal of securities available for sale.

Outflows from investing activities were determined by the change from the acquisition/sale and maturity of investments and insurance-related investments totalling €3,670m.

The cash outflows for financing activities stem mainly from the dividend payment in 2021.

Overall in the year under review, cash – which encompasses cash with banks, cheques and cash in hand – fell by €273m (including currency effects) to €5,487m. There were items pledged as security and other restrictions on title amounting to €10m (8m).

Risk report

Risk governance and risk management system

Risk management organisation

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

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

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

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

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

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

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

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

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

Significant risks

Our general definition of risk is possible future developments or events that could result in a negative prognosis or a negative deviation from the Group's targets. We classify risks as "significant" if they could have a long-term adverse effect on Munich Re's assets, financial situation or profitability. We have applied this definition consistently to each business unit and legal entity, taking account of its individual risk-bearing capacity. The assessment of whether a risk is significant or not for a company according to the above definition is performed in the responsible risk management functions. The assessment of risks is based on economic principles. We make a basic distinction between risks included in our internal model and covered by risk-based capital and other risks not quantified in the internal model. The risks included in the internal model are divided into the following risk categories: underwriting risk in property-casualty business, underwriting risk in life and health business, market risk, credit risk and operational risk. Sustainability risks can affect all of these risk categories and are therefore an integral part of the management of these risks.

Risks depicted in the internal model

Solvency capital requirement – Internal model

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

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

The table shows the solvency capital requirement for Munich Re and its risk categories as at 31 December 2021.

Solvency capital requirements (SCR)

	Reinsurance		ERGO		Diversification	
	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year
	€m	€m	€m	€m	€m	€m
Property-casualty	11,014	9,306	639	559	–484	–452
Life and health	6,470	6,082	1,360	1,332	–397	–418
Market	7,052	5,617	6,496	6,635	–2,065	–1,522
Credit	2,510	2,762	1,903	2,614	–88	–167
Operational risk	830	796	618	648	–246	–259
Other[1]	459	466	357	313		
Subtotal	**28,334**	**25,029**	**11,374**	**12,102**		
Diversification effect	–10,281	–9,283	–1,594	–1,235		
Tax	–2,958	–2,989	–1,126	–902		
Total	**15,095**	**12,758**	**8,653**	**9,965**	**–3,209**	**–3,543**

→	Group			
	31.12.2021	Prev. year		Change
	€m	€m	€m	%
Property-casualty	11,169	9,413	1,756	18.7
Life and health	7,434	6,996	438	6.3
Market	11,483	10,730	753	7.0
Credit	4,325	5,210	–885	–17.0
Operational risk	1,202	1,186	16	1.3
Other[1]	816	779	37	4.7
Subtotal	**36,428**	**34,314**	**2,114**	**6.2**
Diversification effect	–12,332	–11,737	–595	–5.1
Tax	–3,556	–3,396	–160	–4.7
Total	**20,540**	**19,180**	**1,360**	**7.1**

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

The SCR at Group level increased by 7.1% to €20.5bn compared with €19.2bn as at 31 December of the previous year. This increase was mainly driven by further business growth in property-casualty business and life reinsurance. This was reinforced by the appreciation of the US dollar. The market risk was up owing to a moderately higher equity-backing ratio and currency translation effects. The credit risk decreased year on year chiefly on account of the global rise in interest rates. Other information about the changes in individual risk categories and details about risk concentrations can be found in the following sections.

Property-casualty underwriting risk

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

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

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

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

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

Our internal model considers the resulting accumulation-risk scenarios to be independent events. Munich Re's greatest natural hazard exposure lies in the scenarios "Atlantic Hurricane" and "Earthquake North America". Our estimates of exposure for the coming year to the peak scenarios for a return period of 200 years are €8.2bn (6.7bn) for Atlantic Hurricane and €6.9bn (6.0bn) for Earthquake North America (before tax, retained).

As part of our regular validation, we look in particular at the sensitivity of results produced by the risk model for large and accumulation losses to changes in the return periods or loss amounts for events, or a change in the business volumes written. We also consider the effect of changes of dependency assumptions on the results. We regularly adapt our models on the basis of the findings from our validation. In this year's cycle, we took into account the findings from the coronavirus pandemic, for instance in our modelling of certain classes of insurance (especially event cancellation and business interruption) within the pandemic risk model for property-casualty business.

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

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

Solvency capital requirement – Property-casualty

The solvency capital requirement increased by around 18.7% at Group level. This reflects continued growth, particularly in US reinsurance business with natural hazard exposure. The appreciation of the US dollar further reinforced the increase.

Solvency capital requirements (SCR) – Property-casualty

	Reinsurance		ERGO		Diversification	
	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year
	€m	€m	€m	€m	€m	€m
Basic losses	4,486	3,948	566	507	–378	–330
Large and accumulation losses	10,532	8,892	360	240	–299	–184
Subtotal	**15,018**	**12,840**	**926**	**747**		
Diversification effect	–4,004	–3,534	–286	–188		
Total	**11,014**	**9,306**	**639**	**559**	**–484**	**–452**

	Group			Change
	31.12.2021	Prev. year		
	€m	€m	€m	%
Basic losses	4,674	4,124	550	13.3
Large and accumulation losses	10,593	8,949	1,644	18.4
Subtotal	**15,267**	**13,073**	**2,194**	**16.8**
Diversification effect	–4,098	–3,660	–438	–12.0
Total	**11,169**	**9,413**	**1,756**	**18.7**

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. To this end, we model losses and the sum at risk, in particular taking into consideration excess mortalities in connection with the pandemics of the 20th and 21st centuries. We validated our pandemic risk model for life and health business on the basis of the findings from the COVID-19 pandemic. The losses incurred thus far are consistent with the model.

Further relevant information on the risks in life and health insurance can be found in the Notes to the consolidated financial statements under (39) Disclosures on risks from life and health insurance business.

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

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

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

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

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

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

Solvency capital requirement – Life and health

The solvency capital requirement increased by 6.3% at Group level. The SCR was up in the reinsurance field of business, mainly on account of business growth, with interest-rate and currency translation effects balancing each other out. In the ERGO field of business, the solvency capital requirement largely remained unchanged.

Solvency capital requirements (SCR) – Life and health

	Reinsurance		ERGO		Diversification		Group	
	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year
	€m	€m	€m	€m	€m	€m	€m	€m
Health	255	247	833	713	–55	–61	1,033	899
Mortality	4,775	4,544	197	223	–12	–15	4,960	4,753
Disability	3,672	3,362	380	445	–20	–30	4,031	3,777
Longevity	1,284	1,214	636	662	–30	–30	1,890	1,846
Other	446	524					446	524
Diversification	–3,963	–3,809	–685	–710			–4,927	–4,802
Total	**6,470**	**6,082**	**1,360**	**1,332**	**–397**	**–418**	**7,434**	**6,996**

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 models changes in credit risk spreads – for example, on euro government bonds from various issuers, or on corporate bonds. We also include in market risk the risk of changes in inflation rates and implicit volatilities (cost of options). Fluctuations in market prices affect not only our investments, but also the underwriting liabilities – especially in life primary insurance. Due to the long-term interest-rate guarantees given in some cases and the variety of options granted to policyholders in traditional life insurance, the amount of the liabilities can be highly dependent on conditions in the capital markets.

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

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

Solvency capital requirements (SCR) – Market

	Reinsurance		ERGO		Diversification	
	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year
	€m	€m	€m	€m	€m	€m
Equity risk	2,997	2,437	2,806	1,692	–151	–55
General interest-rate risk	1,760	1,515	1,540	2,500	–684	–920
Specific interest-rate risk	1,648	1,824	3,114	3,829	–777	–617
Property risk	1,610	1,591	948	845	–108	–87
Currency risk	4,907	3,364	218	177	–12	–108
Subtotal	**12,922**	**10,731**	**8,627**	**9,043**		
Diversification effect	–5,870	–5,114	–2,131	–2,408		
Total	**7,052**	**5,617**	**6,496**	**6,635**	**–2,065**	**–1,522**

	Group		Change	
	31.12.2021	Prev. year		
	€m	€m	€m	%
Equity risk	5,652	4,074	1,578	38.7
General interest-rate risk	2,616	3,094	–478	–15.4
Specific interest-rate risk	3,985	5,037	–1,052	–20.9
Property risk	2,450	2,350	100	4.3
Currency risk	5,113	3,433	1,680	48.9
Subtotal	**19,816**	**17,988**	**1,828**	**10.2**
Diversification effect	–8,333	–7,257	–1,076	–14.8
Total	**11,483**	**10,730**	**753**	**7.0**

Solvency capital requirement – Market

The solvency capital requirement increased by 7.0% at Group level. Detailed information on the changes in the individual subcategories is available in the following sections.

Equity risk

The year-on-year increase in the equity-backing ratio from 6.0% to 7.7% (after derivatives) was reflected in a material rise in the equity risk.

Interest-rate risk

The moderate increase in the general interest-rate risk in the reinsurance field of business was a consequence of the change in interest-rate exposure in the main currencies. The specific interest-rate risk fell owing to somewhat lower exposure to fixed-interest securities with credit risk exposure, which was partly attributable to increased interest-rate levels.

The interest-rate risks in the ERGO field of business were down, mainly owing to increased interest-rate levels and to a slightly more balanced interest-rate exposure within this field of business.

In the reinsurance field of business, the market value of interest-sensitive investments as at 31 December 2021 was €77.1bn (73.5bn). Measured in terms of modified duration, the interest-rate sensitivity of those investments was 6.0 (6.6), while that of the liabilities was 6.4 (6.7). A decrease in interest rates of one basis point led to a change in available own funds amounting to around €7.9m (11.0m).

In the ERGO field of business, the fair value of interest-sensitive investments was €130.0bn (139.6bn). The modified duration was 9.6 (10.1) for interest-sensitive investments and 9.3 (10.3) for liabilities. A decrease in interest rates of one basis point led to a change in available own funds amounting to around €0.0m (–5.6m).

Property risk

The property risk rose owing to acquisitions and increases in the market values of our property portfolio.

Currency risk

The currency risk increased, primarily due to higher US dollar positions.

Credit risk

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

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

Risk concentrations are mainly in government bonds issued by countries inside and outside the European Union. In addition, corporate bonds, pfandbriefe and similar covered bonds account for a large proportion of the investments.

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

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 countries issuing bonds in which Munich Re is most heavily invested. On this basis, and taking account of the investment requirements of the fields of business in the respective currency areas and countries, limits or action to be taken are approved. These are mandatory throughout the Group for investments and the insurance of political risks.

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

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

We manage credit default risk in retrocession and external reinsurance with the assistance of limits determined by the Retro Security Committee. Our reserves ceded to reinsurers were assignable to the following rating categories as at 31 December 2021:

Ceded share of technical provisions according to rating

%	31.12.2021	Prev. year
AAA	4.7	3.2
AA	14.5	24.5
A	49.1	41.3
BBB and lower	5.4	7.2
No rating available	26.2	23.7

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

Solvency capital requirement – Credit

The solvency capital requirement decreased by 17.0% at Group level. The reduction was mainly attributable to higher interest rates, as a result of which the market values of fixed-interest securities fell. This increased the risk buffers available to our life insurance companies, leaving less credit risk with Munich Re.

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 operational risk control system (ORCS), which represents the core element of the internal control system. It addresses not only the requirements relevant for the Group but also the respective local regulations. The identification of operational risks that are significant from a Group perspective is covered by the ORCS and these risks are reviewed and assessed by the risk carriers and process owners on a regular basis. Appropriate measures – up to and including larger projects – are used to correct identified weaknesses. The continued adequacy and effectiveness of the internal control system is regularly reviewed by Group Audit.

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

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 ORCS findings and both internal and external loss data.

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

Solvency capital requirement – Operational risk

At Group level, the solvency capital requirement increased slightly by 1.3% owing to updated assessments in selected scenarios.

Other risk categories

As is typical throughout the industry and in accordance with regulatory requirements, the risk types specified below are not explicitly capitalised in our internal model. Qualitative risk management is very important for dealing with these risks.

Reputational risk

We define reputational risk as the risk of loss that may result from a deterioration in the Group's public image among clients, shareholders or other parties. Our reputation is affected by our behaviour in a number of areas, such as client relationships, product quality, corporate governance, earnings power, our treatment of employees and corporate responsibility. Reputational risk is closely intertwined with all other risk categories. The assessment of individual business transactions in terms of their reputational risk is performed at field-of-business level 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. We identify strategic risks in particular using our emerging risk process. In addition, strategic risks must be evaluated by the responsible departments (for instance in underwriting or the investment area). This is done in the context of proposals submitted to the competent bodies or the Board of Management for decision. We manage strategic risk by carrying out risk analyses for significant strategic issues and regularly monitoring the implementation of measures deemed necessary. The Group CRO is involved in both the strategic and operational business planning as well as in significant company sales, mergers and acquisitions.

Security risk

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

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

To further improve cyber security, we are working on initiatives both specific to and across the fields of business to ensure a level of protection in line with our information security strategy.

Further information can be found in the non-financial statement, in the section "Responsible digital transformation, data protection and cyber security".

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 is continuously monitored and subject to stringent requirements for the availability of liquidity. The short-term and medium-term liquidity planning is submitted to the Board of Management on a regular basis.

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

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

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

Solvency ratio under Solvency II

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

Solvency II ratio[1]

		31.12.2021	Prev. year	Change
Eligible own funds[2]	€m	46,626	39,919	6,707
Solvency capital requirement	€m	20,540	19,180	1,360
Solvency II ratio	%	227.0	208.1	

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 €52.2bn (€46.1bn); Solvency II ratio: 254% (240%).
2 Positive economic earnings increased the eligible own funds as at the reporting date by a total of €8.1bn. While the dividend approved by the Board of Management and proposed to the Annual General Meeting for the 2021 financial year reduced the eligible own funds by €1.5bn, the repayment and issue of a subordinated bond did not lead to any material change in the eligible own funds overall. In total, eligible own funds increased in the 2021 financial year. An amount of €0.1bn for other measures was also recognised.

The eligible own funds as at the balance sheet date take into account deductions for the dividend of €1.5bn agreed by the Board of Management and proposed to the Annual General Meeting for the 2021 financial year.

Other risks

Economic and financial-market developments and regulatory risks

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

The global economy has largely recovered from the coronavirus pandemic. However, virus mutations may result in setbacks, including in the capital markets. Massive changes in demand and supply structure, in addition to ongoing supply-chain difficulties, have also led to strong price increases, in particular in the energy sector, where they were recently aggravated by geopolitical and climate policy developments. If these increases persist, negative real-income effects and a more restrictive monetary policy may significantly slow the global economy, entailing company insolvencies and adverse consequences for both labour and capital markets. Country credit profiles have continued to worsen as a result of fiscal measures taken in connection with the pandemic. Moreover, rising prices could contribute to social upheavals and political uncertainty.

In geopolitical terms, the focus is on the military conflict between Russia and Ukraine. This may lead to an intensification of the conflict between the USA and Russia and threatens to break up the European peace order. The sanctions imposed on Russia by the Western community of values may have severe repercussions for entire economies. With respect to global capital markets, this crisis in particular has the potential to dramatically increase uncertainty and volatility. In the area of investment, Munich Re could experience direct financial effects from direct investments in Russian or Ukrainian government or corporate bonds. In the insurance area, the main exposures will be from covering political risks as well as from trade credit reinsurance and structured credit reinsurance. In addition, the large number of other major conflicts and trouble spots (possible intensification of the USA's confrontation with Iran for example) could – if they escalate – have perceptible consequences not only at a regional level, but also globally, and increase uncertainty and volatility in capital markets, at least in the short term. There remains a risk of a split in the global technological and economic space driven by geopolitical conflicts, especially between China and the USA. We constantly analyse the potential impact that developments of this sort may have on our risk profile.

Even if general political risks persist in the eurozone, the introduction of the EU's recovery instrument – NextGeneration EU – and the associated cohesion signal have further reduced the risk of disintegration. Nevertheless, in particular the disputes related to the rule-of-law mechanisms also harbour disintegration risks for the EU. In the event of a significant rise in refinancing costs, the increase in sovereign debt could lead to potential falls in ratings and declines in market values for the bonds of the affected countries. Conversely, the "communitisation" of sovereign debt, already underway, could lead to German government bonds losing their safe-haven status in the medium term, which would also involve falls in market values. The increased risk of power outages and energy supply failures could also impact European assets in particular. Despite the EU-UK Trade and Cooperation Agreement concluded as part of Brexit, there remains a risk of the bilateral trade agreement being terminated as part of the renegotiations of the Northern Ireland Protocol.

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

Climate change

With respect to the ecological dimension of sustainability, climate change represents the central sustainability risk. Climate-related risks arise in the form of physical and transition risks, with interdependencies between both risk types. Physical risks arise as a consequence of extreme weather events (heat, drought, windstorms, hail, etc.) resulting from climate change. Transition risks arise as a consequence of political or economic measures taken for the purpose of conversion to a lower-carbon economy or reactions to changing living conditions in certain regions. Both risks not only have long-term effects, but can also have disruptive, short-term consequences.

Munich Re is therefore working intensively on the impact of climate change on our Group. Our risk-management competence built up over many years, the consideration of findings from current climate research and our risk models allow us to professionally assess changes in natural hazard risks and to adequately account for these risks in the pricing of hedging products as well as in contract wording and in calculating solvency capital requirements.

We take short-term (physical) impacts of climate change into account, particularly in the risk assessment of natural hazards. Examples of this are our updated assessments of the "USA wildfire" scenario in the reinsurance segment and the "Germany and Poland floods" scenario that is of particular significance in the ERGO segment. The occurrence of natural catastrophes with greater frequency or of greater severity than expected could have a substantial adverse impact on Munich Re's results and financial situation.

Munich Re performs scenario analyses to analyse the long-term effects of climate change until the year 2050. The main differences between the three scenarios lie essentially in the following two aspects: on the one hand, whether the 1.5°C target can be achieved, and the other whether this target is realised by means of "soft" or drastic measures.

The increase in litigation risks has been identified as a long-term impact of climate change. This is due to a potential increase in the number of cases where companies are accused of failing to sufficiently take into account in their business strategy the impacts on climate change, of making their products appear more climate-friendly than they are ("greenwashing") or of failing to adequately comply with climate-related public disclosure requirements. Such litigation risks may occur both on the insurance side under third-party liability covers and on the investment side. To increase awareness of this risk and take it into account in future (re)insurance contract wordings, Corporate Underwriting has established standards that are being conveyed to the employees responsible in information and training sessions.

With respect to our investments, it is essential to take the impacts of climate change as well as regulatory changes into account in our long-term investment strategy. This applies in particular to investments that are illiquid over the long term, which account for an increasing share of our investments.

In summary, we assessed the impacts on our risk exposures in the period of analysis to be immaterial. This is thanks to our ability to regularly adapt models and risk exposures – at short notice, if need be.

Further information, in particular on the highest possible loss attributable to climate-related natural catastrophes for a 200-year event, is available in the section “Insurance” of our combined non-financial statement.

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 imminent proceedings is neither certain nor predictable. However, we believe that none of these proceedings will have a significant negative effect on the financial position of Munich Re. Legal risks are dealt with using combined legal expertise within the individual departments and units.

Summary

In accordance with the prescribed processes, our Board committees explicitly defined the risk appetite for significant risk categories in the year under review, and quantified it with key figures. We determined and documented the risk appetite across the Group hierarchy and communicated it throughout the Group. In 2021 risk exposures were regularly quantified and compared with the risk appetite. They were reported on and discussed in the relevant committees. At 227%, the Solvency II ratio is at a very comfortable level somewhat above our communicated optimal range of 175–220% (without application of transitional measures).

Munich Re thus continues to have a very solid capital base. Based on up-to-date findings and on our internal model, Munich Re’s Solvency II ratio (without application of transitional measures) would be within the optimal range even in the event of major loss events and negative capital market effects. We therefore assess Munich Re’s risk situation to be manageable and under control.

Opportunities report

Our integrated 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 recovery from the pandemic-related recession will continue to shape the growth of the global economy, although the momentum is likely to be dampened by further pandemic outbreaks, bottlenecks in global supply chains and high inflation. However, if the important macroeconomic parameters that are especially relevant to us improve even more strongly, additional business opportunities will open up for us. Stronger economic growth tends to have a positive impact on the demand for insurance cover, and it triggers higher premium volume in most classes of insurance. In addition, the coronavirus pandemic has caused many reinsurance and primary insurance clients to recognise that they need increased risk protection. The need for first-class medical care and cover against unforeseeable risks was brought home to consumers, and this could have a positive effect on demand for insurance products, in particular private health insurance.

Economic dynamics, which are expected to be positive in the long term, and the low degree of insurance penetration in many developing and emerging markets represent opportunities for profitable expansion and further diversification of our business portfolio along the entire value chain. Examples of that are the targeted growth in reinsurance through service provision for cedants in emerging markets in Asia, the Middle East and South America, as well as ERGO's activities, particularly in India, China and Thailand.

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

In addition, we expect an ongoing hard market in international property insurance, with numerous opportunities for profitable growth, especially in our reinsurance and industrial insurance portfolios.

Digital transformation

Digitalisation is increasingly transforming the markets, and the continuous changes in customer behaviour are demanding greater flexibility in providing access, coverage and solutions, as well as in our underlying internal structures. Driving digital transformation therefore remains one of Munich Re's strategic priorities and is part of our Group Ambition 2025.

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

We are also taking account of increasing demand for digital products in our research and development activities. At ERGO, for example, we heavily invest in the development of new technologies such as robotics, artificial intelligence and voice technology. In doing so, we intend to make our processes and operations more efficient and intelligent, thus enhancing customer experience.

We are supporting our transformation towards more innovative products and services through major investments in our innovation activities, digital infrastructure and know-how, as well as through joint ventures with strategic partners such as start-ups. With Munich Re's presence in major start-up hubs, our collaboration with accelerators, and our corporate venture capital activities, numerous new cooperation and business ideas are arising which will help us to lastingly safeguard our business model, expand it beyond the insurance value chain, and tap the growth opportunities provided by the digital world. In reinsurance, we are focusing on five main areas: digital cooperation models in life and health and property-casualty business, IoT applications and services, cyber, data-driven underwriting and claims management solutions, and mobility solutions. An example of that is our participation in the Quantum Technology and Application Consortium to identify and develop the opportunities offered by quantum computing for insurers. Given our clients' hybrid requirements, we are actively driving the integration of various products and sales channels, and the expansion of direct sales in all classes of primary insurance.

Social trends

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

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

Climate change and natural catastrophes

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

Expanding the limits of insurability

Together with our clients, we strive to expand the boundaries of insurability in many ways and provide our customers with new and enhanced types of cover. For example, in cyber insurance we are offering our clients diverse coverage concepts for risks and damage caused by faulty product software and cyber attacks, as well as services ranging from preventative measures to the recovery of lost data. At the same time, we are developing a broad spectrum of insurance covers for types of risk that are rapidly becoming as important as the traditional ones in a changing world: for example, performance guarantees for alternative energy and motors, risks from artificial intelligence and algorithms, parametric risks, flood risks or credit insurance, as well as data-driven solutions and services marketed under third-party brands. Our ERGO Mobility Solutions division is jointly developing innovative service and product solutions together with cooperation partners in the field of mobility; an example of that is the joint venture with Great Wall Motors in China for the sale of innovative and integrated digital insurance and mobility solutions via the automotive manufacturer's car dealerships.

Prospects

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

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

Outlook 2022

Outlook for Munich Re

		2022
Gross premiums written	€bn	61
Technical result life and health reinsurance[1]	€m	400
Combined ratio property-casualty reinsurance	%	94
Combined ratio ERGO Property-casualty Germany	%	91
Combined ratio ERGO Property-casualty International	%	92
Return on investment[2]	%	Over 2.5
Consolidated result	€bn	3.3
Economic earnings	€bn	Over 3.3

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

All forecasts remain subject to considerable uncertainty because the course of the coronavirus pandemic is unforeseeable, the outcome of the military conflict between Russia and Ukraine cannot be predicted, macroeconomic trends are increasingly fragile, and financial markets remain very volatile. For Munich Re, this continues to entail risks related to a possible widening of credit risk spreads and potential defaults on bonds. Further loss potential is to be found in possible reductions in the market values of shares and property, and in interest-rate changes.

Munich Re

For 2022, we estimate that the Group's gross premiums written will total around €61bn.

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

We aim to achieve a consolidated result of around €3.3bn – that is, about €0.4bn higher than in the previous year. The forecasts are subject to major losses being within normal bounds and claims provisions remaining unchanged. Furthermore, they are dependent on our income statement not being impacted by severe currency or capital market movements, significant changes in fiscal parameters, or other special factors.

For the 2022 financial year, we predict economic earnings of over €3.3bn. The higher target figure compared with the envisaged IFRS result is chiefly due to new business in primary insurance and reinsurance. In economic metrics, the corresponding profit fully materialises at the start of the treaty, and thus earlier than in IFRS. This projection is based on the assumption of stable conditions and capital markets, unchanged modelling parameters, and normal major-loss incidence. Deviations from these assumptions may have a different impact on economic earnings than on IFRS accounting. Further information on economic earnings as a management tool can be found in the section "Tools of corporate management and strategic financial objectives".

Subject to approval by the Annual General Meeting, the dividend will amount to €11.00 per share. This is equivalent to a total payout of €1,541m.

Reinsurance

Gross premium volume in reinsurance as a whole should be around €42.5bn in 2022, which would be about €1.1bn more year on year. Currency translation effects could potentially have a considerable impact on this estimate. The consolidated result in reinsurance is expected to total around €2.7bn, or approximately €0.4bn more than in the previous year.

In life and health reinsurance, we anticipate losses caused by COVID-19 of around €300m in 2022. Overall, we expect to see a distinctly growing result contribution and we anticipate a technical result, including the result from insurance contracts with non-significant risk transfer, of around €400m – an increase of nearly €200m year on year.

We expect a combined ratio of around 94% of net earned premiums in property-casualty reinsurance. We anticipate that expenditure owing to COVID-19 will not be significant.

The reinsurance renewals as at 1 January 2022 once again took place in a very competitive market environment. The capacity of reinsurers and capital market participants in the renewals remained high. Prices for the Munich Re portfolio increased by 0.7%. Economic profitability was negatively impacted by the sustained low level of interest rates.

As at 1 January 2022, around two thirds of the non-life reinsurance business was up for renewal, representing a premium volume of €12.9bn. Total premium volume written increased by 14.5% to around €14.8bn. 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 as at 1 April 2022 (above all in Japan) and 1 July 2022 (parts of the portfolio in the USA, Australia and Latin America) will involve the renegotiation of a premium volume of around €6.2bn in reinsurance treaty business. It is Munich Re's expectation that the recent price increases will continue in these renewal rounds, too.

ERGO

Gross premiums written in the ERGO field of business should come to around €18.5bn in 2022. We anticipate that COVID-19 will not have a significant impact on the result. The consolidated result should total around €0.6bn.

We intend to achieve a combined ratio of around 91% in the ERGO Property-casualty Germany segment, and around 92% in the ERGO International segment. Both forecasts are based on the assumption that major losses are at a normal level.

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

For the 2021 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 reporting, this section provides details on the performance of Munich Reinsurance Company.

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

Market environment and major factors of influence

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

Business performance

Munich Reinsurance Company’s business performance was successful in the 2021 financial year, chiefly thanks to lower expenditure for major losses. While the reporting year saw higher losses from natural catastrophes, above all Hurricane Ida and Storm Bernd, man-made major losses were down significantly on the previous year, which had been severely impacted by COVID-19, in particular in event cancellation and business interruption insurance. By contrast, the reserve releases made for prior accident years following a review of our reserving position were lower than in the previous year, and thus had a minor negative impact on the underwriting result before claims equalisation provision.

A project aimed at reviewing the categorisation by class of business was completed in the reporting year. In a few cases, the resulting changes in categorisation were applied throughout the reference period for calculating the claims equalisation provision.

In the previous year, the effects of the changes in categorisation largely balanced each other out across all classes of business, and had a minor impact on the underwriting result overall. In the reporting year, the new categorisation, along with effects from ordinary business performance, resulted in an appreciable reduction of the mandatory claims equalisation provision to be set up for the fire class of business.

Furthermore, we no longer prepared separate technical profit and loss accounts for engineering and “Other classes” in the reporting year. As a result, the claims equalisation provision in these classes of business was released completely.

The accounting result of Munich Reinsurance Company developed as follows:

Condensed income statement for Munich Reinsurance Company

	2021	Prev. year	Change
	€m	€m	%
Earned premiums for own account	21,367	20,588	3.8
Interest on technical provisions for own account	349	360	-3.1
Other underwriting income for own account	25	53	-52.1
Claims incurred for own account	-16,183	-16,500	1.9
Change in other technical provisions for own account	478	338	41.4
Expenses for performance-related and non-performance-related premium refunds for own account	-1	-1	-35.5
Operating expenses for own account	-5,230	-5,311	1.5
Other underwriting expenses for own account	-13	-15	14.8
Subtotal	**792**	**-488**	**–**
Change in claims equalisation provision and similar provisions	2,046	-772	–
Underwriting result for own account	**2,839**	**-1,260**	**–**
Investment income	4,947	7,050	-29.8
Investment expenses	-1,601	-2,180	26.6
Interest income on technical provisions	-379	-388	2.4
Other income	1,429	537	166.0
Other expenses	-1,857	-445	-317.5
Non-technical result	**2,540**	**4,574**	**-44.5**
Operating result before tax	**5,378**	**3,314**	**62.3**
Taxes on income and profit and other taxes	-1,327	-133	-894.3
Profit for the year	**4,051**	**3,180**	**27.4**
Profit brought forward from previous year	0	41	-100.0
Transfers from other revenue reserves	0	0	–
Appropriations to revenue reserves	-2,026	-1,590	-27.4
Net retained profits	**2,026**	**1,632**	**24.2**

Technical result

In the 2021 financial year, Munich Reinsurance Company's gross premium income totalled €26,928m (25,152m). The year-on-year increase of 7.1% chiefly resulted from new business and growth of existing business. Changes in the value of the euro as against other currencies had a dampening effect.

Gross premium volume in life and health reinsurance remained relatively stable in the reporting year: Gross premiums rose slightly by 2.7% to €8,697m (8,470m). If exchange rates had remained unchanged, our premium income in life and health reinsurance would have increased by 3.1%.

In property-casualty reinsurance, we posted growth in gross premium income of 9.3% to €18,230m (16,682m) in the reporting year. The increase was due to an expansion of business across almost all lines and regions, and was dampened by negative currency effects. If exchange rates had remained the same, premium volume would have been up by 12.4%.

Reinsurance treaty renewals once again took place in a very competitive market environment. Prices, terms and conditions improved overall in the sectional markets, with considerably different trends dependent upon claims experience and the situation in each individual market. Prices rose – considerably in some instances – for insurance cover in regions and classes of business with high loss experience, including COVID-19-related losses. By contrast, prices rose only slightly in regions and classes of business with low claims experience. Munich Re takes the different price trends into account and has deliberately withdrawn from business that no longer met risk-return expectations. All in all, prices for the Munich Re portfolio increased by around 2.3%. Overall, we adhered to our profit-oriented underwriting policy.

The underwriting result before claims equalisation provision amounted to €792m in the reporting year, compared with a loss of €488m in the previous year. The improved result was mainly attributable to significantly lower major-loss expenditure compared with the previous year, which had been impacted very severely by COVID-19-related losses. Our customary review of provisions for the full year, which resulted in a lower reduction in the provisions for claims from prior years, had a slight contrary effect. Over the years, the safety margin in the provisions has remained unchanged at a high level.

Major-loss expenditure totalling €2,866m after retrocession and before tax was lower than in the previous year (€3,565m), but exceeded the long-term average expected value of 12%. There were again a large number of major losses in the 2021 financial year. The biggest loss event by far was Hurricane Ida, which caused severe damage in the Gulf of Mexico in August and September.

Due to various other major loss events, such as a series of severe storms in the central and southeastern USA in December 2021 or Storm Bernd, which caused high flood losses in western and central Europe in July 2021, natural catastrophe losses were up significantly year on year, totalling €1,412m (196m). In terms of net earned premium, aggregate natural catastrophe losses accounted for 8.9 (1.3) percentage points of the loss ratio.

In property-casualty reinsurance, man-made major losses totalling €1,041m (3,323m) in the reporting year were down significantly on the previous year, which had been hit by very high COVID-19-related losses. This was equivalent to 6.5 (21.4) percentage points of net earned premium.

The combined ratio, which reflects the relation of claims and costs to net earned premiums, came to 97.2% (103.5%) overall, mainly owing to the above effects.

Performance of the classes of business

Life

		2021	Prev. year	Change
				%
Gross premiums written	€m	7,599	6,928	9.7
Underwriting result before claims equalisation provision and similar provisions	€m	326	65	401.5

In life reinsurance, the rise in premium income was chiefly attributable to new or expanded reinsurance treaties with European subsidiaries. The underwriting result was significantly above the level of the previous year. The year-on-year increase in claims expenditure due to COVID-19 and other major losses was more than offset by reserve reductions in Australia and Canada, partly owing to economic developments.

Health

		2021	Prev. year	Change
				%
Gross premiums written	€m	1,098	1,541	–28.7
Combined ratio	%	96.4	98.3	
Underwriting result before claims equalisation provision and similar provisions	€m	46	18	155.6

Premium income in health reinsurance decreased year on year, mainly owing to the termination of large-volume reinsurance treaties. The result saw an increase year on year due to new business and business growth, above all in Asia and Canada.

Personal accident

		2021	Prev. year	Change
				%
Gross premiums written	€m	316	297	6.4
Combined ratio	%	91.9	127.9	
Underwriting result before claims equalisation provision and similar provisions	€m	5	–76	–

In personal accident reinsurance, premium income was slightly up in the reporting year owing to business growth. The underwriting result before claims equalisation provision, which in the previous year had shown a loss, moved into slightly positive territory, largely owing to significantly lower claims expenditure compared with the previous year.

Third-party liability

		2021	Prev. year	Change
				%
Gross premiums written	€m	3,344	2,925	14.3
Combined ratio	%	110.4	106.3	
Underwriting result before claims equalisation provision and similar provisions	€m	–319	–168	–89.9

In third-party liability reinsurance, premium income moderately increased in the reporting year, mainly on account of new business and business growth. The underwriting result before claims equalisation provision decreased year on year owing to higher expenditure for major losses.

Motor

		2021	Prev. year	Change
				%
Gross premiums written	€m	3,849	3,783	1.7
Combined ratio	%	96.3	93.3	
Underwriting result before claims equalisation provision and similar provisions	€m	139	227	-38.8

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

Marine

		2021	Prev. year	Change
				%
Gross premiums written	€m	457	431	6.0
Combined ratio	%	85.2	90.1	
Underwriting result before claims equalisation provision and similar provisions	€m	53	33	60.6

In marine reinsurance, premium income increased slightly in the reporting year on account of new business. The underwriting result before claims equalisation provision improved thanks to a lower combined ratio.

Aviation

		2021	Prev. year	Change
				%
Gross premiums written	€m	601	586	2.6
Combined ratio	%	96.3	94.2	
Underwriting result before claims equalisation provision and similar provisions	€m	21	32	-34.4

Premium income in aviation reinsurance, which comprises the aviation and space classes, remained nearly constant compared with the previous year. The underwriting result before claims equalisation provision decreased on account of marginally higher claims expenditure.

Fire

		2021	Prev. year	Change
				%
Gross premiums written	€m	2,753	2,955	-6.8
Combined ratio	%	110.5	112.5	
Underwriting result before claims equalisation provision and similar provisions	€m	-235	-305	23.0

Premium income in fire reinsurance decreased slightly in the reporting year as we gave up unprofitable business. The improved underwriting result before claims equalisation provision was attributable to lower major-loss expenditure.

Engineering

		2021	Prev. year	Change
				%
Gross premiums written	€m	956	776	23.2
Combined ratio	%	76.9	79.9	
Underwriting result before claims equalisation provision and similar provisions	€m	182	137	32.8

In engineering (machinery, EAR, CAR, EEI, etc.), premium income saw a year-on-year increase due to business growth. The underwriting result was up on the previous year thanks to a somewhat lower combined ratio.

Other classes

		2021	Prev. year	Change
				%
Gross premiums written	€m	5,953	4,928	20.8
Combined ratio	%	88.5	111.0	
Underwriting result before claims equalisation provision and similar provisions	€m	574	-451	-

Under "Other classes", we subsume the remaining classes of property insurance, such as burglary, plate glass, hail (including agricultural insurance), water damage, contingency, windstorm, livestock and householders' and homeowners' comprehensive insurance as well as credit insurance.

Premium income was up significantly year on year, above all on account of new business and business growth. In the previous year, we had posted a negative result due to high COVID 19 losses. In the reporting year, the combined underwriting result of the “Other classes” before claims equalisation provision moved strongly back into positive territory.

Non-technical result

In the reporting year, the global economy continued to recover from the recession sparked by the coronavirus pandemic in 2020. Although global business activity rebounded to its pre-crisis level, new waves of infections, more stringent containment measures, and supply bottlenecks hindered economic growth. The recovery was supported by extensive stimulus packages, especially in the USA. The inflation rate rose in many industrialised countries, and on average for the year lay far above the long-term average in both the USA and Germany. In addition to rising commodity and energy prices, this was due to basic underlying effects, particularly the unusually low price pressure in the previous year.

In 2021, as in the year before, many central banks continued to deploy far-reaching measures in an effort to facilitate favourable financing conditions and promote economic recovery. Yields on ten-year government bonds in the United States and Germany initially continued their upward trend, which had begun in late 2020, driven by a recovering global economy and rising inflation rates.

However, over the course of the year, the resurgence of the pandemic and a deteriorating growth outlook served to hamper a further growth in yields. At the end of December 2021, yields on US bonds were still at a low level compared to the previous several years. In addition, yields on ten-year German government bonds remained in negative territory.

In the reporting year, volatility on the international financial markets was considerably lower than in the previous year. In the course of the year, important equity indices like the US Dow Jones and the Dow Jones (DJ) EURO STOXX 50 reached record highs. At the end of December, they were roughly 20% over their levels at the end of 2020.

On the currency markets, fluctuations were also less pronounced in 2021 than in the previous year. At the end of December, the US dollar, Canadian dollar and pound sterling were significantly higher against the euro compared with the end of 2020.

In the 2021 financial year, Munich Reinsurance Company’s return on investment (including deposits retained on assumed reinsurance) totalled 4.2% (6.4%) on the basis of carrying amounts.

Investment result

€m	2021	Prev. year
Regular income	2,535	3,192
Write-ups and write-downs	415	–559
Realised gains/losses on the disposal of investments	451	2,328
Other income/expenses	–55	–92
Total	**3,346**	**4,870**

The decline in the investment result in the 2021 financial year was mostly attributable to lower net gains on disposal. The positive result contribution in the previous year mainly resulted from property contributions to affiliated companies of Munich Reinsurance Company, taking into account organisational, tax and German GAAP aspects. Furthermore, lower dividend payouts from subsidiaries were more than offset by a significantly improved balance of write-ups and write-downs.

Profit for the year

Munich Reinsurance Company generated a profit of €4,051m (3,180m) in the 2021 financial year, up on the previous year’s figure. The lower investment result and higher tax charges were more than offset by a substantially improved underwriting result, mainly due to a one-off effect from releasing parts of the claims equalisation provision.

The increase in tax expenditure compared to the previous year was chiefly attributable to the German parent company’s higher tax burden for the reporting year and previous years. The higher tax burden for previous years resulted from adjustments made to reflect tax account values in the 2019 tax return, and from loss carry-forwards being used up. The higher tax expenses for the reporting year were due to an increase in taxable income.

Financial position

Balance sheet structure of Munich Reinsurance Company

€m	2021	Prev. year	Change
	€m	€m	%
Intangible assets	133	147	–9.0
Investments	81,339	76,765	6.0
Receivables	23,113	19,828	16.6
Other assets	1,242	842	47.5
Deferred items	228	207	10.1
Excess of plan assets over pension liabilities	501	642	–22.0
Total assets	**106,556**	**98,430**	**8.3**
Equity	15,040	12,362	21.7
Subordinated liabilities	4,936	4,903	0.7
Technical provisions	66,538	64,179	3.7
Other provisions	2,221	1,819	22.1
Deposits retained on retroceded business	2,620	2,049	27.9
Other liabilities	15,170	13,088	15.9
Deferred items	31	31	–2.2
Total equity and liabilities	**106,556**	**98,430**	**8.3**

In the 2021 financial year, Munich Reinsurance Company generated net retained profits of €2,026m (1,632m) according to German accountancy rules (HGB). Including these net retained profits, the Company's revenue reserves amounted to €7,608m (4,930m) as at the reporting date, of which €637m (640m) is subject to a restriction on distribution. The distributable earnings thus amount to €6,971m (4,290m).

The shareholders' equity of Munich Reinsurance Company as determined under German accountancy rules is protected against the risk of loss arising from a random accumulation of losses by the claims equalisation provision totalling €7,946m (10,020m). 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 €11.00 per share for the 2021 financial year, or €1,541m 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 to €72,162m (67,893m).

As at 31 December 2021, 89% of our fixed-interest securities were rated "A" or better. Overall, 96% of our fixed-interest securities were investment grade at the reporting date.

Equity[1]

€m	2021	Prev. year
Issued capital	588	588
Capital reserve	6,845	6,845
Revenue reserves	5,582	3,298
Net retained profits	2,026	1,632
Equity	**15,040**	**12,362**

1 Information on Section 160(1) no. 2 of the German Stock Corporation Act (AktG) can be found in Note 6 of Munich Reinsurance Company's Annual Report 2021.

Pursuant to German commercial and company law, dividends and share buy-backs may only be paid out of profits and revenue reserves. Besides the expenses and income incurred in the current year, changes in the claims equalisation provision also have a significant influence on the level of profits for the year.

The claims equalisation provision is established for individual classes of property-casualty business. It serves to smooth significant fluctuations in loss experience over a number of years. Its recognition and measurement are 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 2022 financial year – the amounts released will be lower.

The target or maximum amount allowed for the claims equalisation provision, which is essentially calculated on the basis of earned premiums and the standard deviation of the loss ratio in the respective class of insurance, determines the amount of the annual non-performance-related allocation to the claims equalisation provision. The performance-related change in the claims equalisation provision is added to this figure in years in which claims experience is favourable (i.e. when the random occurrence of claims is below average), whereas amounts are withdrawn in years in which claims experience is adverse (i.e. the random occurrence of claims is above average).

The balance sheet item "Claims equalisation provision and similar provisions" decreased by €2,046m to €8,563m (10,609m) in the 2021 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 €338m (−33m), third-party liability €289m (363m), marine €13m (−17m), and aviation €7m (43m).

We no longer prepared separate technical profit and loss accounts for engineering and “Other classes” in the reporting year. As a result, the claims equalisation provision in these classes of business was released completely. The total amounts released were −€1,162m (218m) in “Other classes”, and −€464m (134m) in engineering.

Furthermore, due to negative results, the claims equalisation provision was reduced in the following classes of business: fire −€724m (61m), motor −€222m (61m), and personal accident −€150m (−70m).

The current level of the claims equalisation provision is 100% of the legally stipulated maximum amount allowed in the motor and personal accident classes of business, and more than 50% in fire, third-party liability, credit and marine.

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 2021 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 pursuant to Section 289f of the Commercial Code (HGB), and the Group Statement of Corporate Governance in accordance with Section 315d of the Commercial Code. The statements have been combined and can be found in the section on corporate governance. Pursuant to Section 317(2) sentence 6 of the Commercial Code, the audit of statements by the auditors is limited to whether or not this has been done. The combined Statement on Corporate Governance can be found on the Munich Re website at www.munichre.com/cg-en.

Further information

Risks and opportunities

The business performance of Munich Reinsurance Company is largely subject to the same risks and opportunities as the performance of the reinsurance field of business presented in the consolidated financial statements. Munich Reinsurance Company generally participates in the risks of its shareholdings and subsidiaries in accordance with its respective percentage interest held. Munich Reinsurance Company is integrated in the Group-wide risk management system and internal control system of the Group. Further information is provided in the risk report and the opportunities report.

Remuneration report of Munich Reinsurance Company

The principles regarding the structure and design of the compensation system of Munich Reinsurance Company correspond to those of the Group. Further information is provided in the remuneration report at www.munichre.com/board-of-management.

Other information

On 31 December 2021, Munich Reinsurance Company had 4,188 employees.

Munich Reinsurance Company has branches in Australia, Canada, China, France, India, Italy, Japan, Malaysia, New Zealand, Singapore, South Korea, Spain and the United Kingdom.

Prospects

The projections by Munich Reinsurance Company about the future development of its business are essentially subject to the same influences as the reinsurance life and health and reinsurance property-casualty segments presented in the consolidated financial statements. You can find this information in “Outlook 2022”.

Against this background, Munich Reinsurance Company should post gross premium of around €28bn in the 2022 financial year – assuming that exchange rates remain constant. We expect the combined ratio to be around 94% 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 2022 financial year will be higher than in the reporting year.

The investment result of Munich Reinsurance Company is expected to decrease in the 2022 financial year, as we expect a reduction in both regular and extraordinary income.

As things stand at present, we expect to achieve an adequate German GAAP (HGB) result in the 2022 financial year, although it is likely to be significantly lower than in the reporting year, which benefited from a one-off effect from the release of parts of the claims equalisation provision.

Corporate governance

Dr. Nikolaus von Bomhard
Chairman of the Supervisory Board

Dear Readers,

In the 2021 financial year, the Supervisory Board fulfilled all the tasks and duties incumbent upon it by law and under the Articles of Association and the rules of procedure. The overall attendance of members at meetings of the Supervisory Board and its committees was 98% (an overview of attendance can be found at the end of the Report of the Supervisory Board and at www.munichre.com/supervisory-board). In light of the coronavirus pandemic, use was again made of the option to take part in meetings electronically this financial year.

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. In addition, the shareholder representatives and the employee representatives met regularly with the Chairman of the Board of Management for separate discussions in preparation for the meetings.

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

Focal points of the meetings of the full Supervisory Board

There were six meetings of the Supervisory Board in the reporting year. We regularly held in-depth discussions with the Board of Management about business performance and current topics, with a special focus on strategic considerations of the Board of Management with respect to the individual fields of business and the development of the pandemic and its impact. The Board of Management reported to us regularly on Munich Re's investments, addressing developments in the global economy and financial markets in detail, as well as their impact on the Group's assets, financial position and results. In addition, we advised the Board of Management on matters of strategic importance for the future of the Group, with a particular focus last year on the digitalisation and sustainability strategies. Besides the above-mentioned issues, we dealt specifically with the following topics at the individual meetings in 2021:

The meeting on 24 February focused on the preliminary figures for the 2020 Company and Group financial statements and the Board of Management's proposal for appropriation of the net retained profits.

The meeting on 16 March focused among other things on the Company and Group financial statements for 2020, the combined management report (including the combined non-financial statement) and the Supervisory Board's motions for resolution by the 2021 Annual General Meeting. We also discussed and made a decision about the extension of the appointment of Torsten Jeworrek, Christoph Jurecka and Joachim Wenning to the Board of Management. Furthermore, we took a decision on the adjustment of the remuneration system for the members of the Board of Management, in particular the introduction of an ESG category of objective for the multi-year bonus as of 2022. We discussed and decided how to measure the annual bonus for 2020.

The meeting on 27 April addressed the self-assessment that insurance supervisory law requires the members of the Supervisory Board to undertake concerning their knowledge of topics that are important for providing advice and supervision to the Munich Re Board of Management. The high level of collective expertise on the Supervisory Board was maintained. The Supervisory Board possesses the appropriate diversity of qualifications, knowledge and experience to provide advice and supervision to proficiently monitor and accompany the business performance of Munich Re, taking account of the characteristics specific to the Company and the Group. The shareholder representatives adopted a resolution regarding the publication of their individual competencies. We also received the Board of Management's report on the status of business performance in 2021. We used the meeting to make last-minute preparations for the Annual General Meeting, which took place the next day and – as a result of the coronavirus pandemic – again took the form of an online event.

On 13 July, we adopted a resolution on the extension of the appointment of Nicholas Gartside to the Board of Management. We also discussed the Group-wide remuneration report submitted to us for the 2020 financial year in line with Solvency II and the Remuneration Regulation for Insurance Companies (VersVergV). The Board of Management informed us about the property-casualty reinsurance business in Asia-Pacific and Africa, and about the market environment, strategy and future vision of the Risk Solutions business.

In the meeting on 13 October, we discussed succession planning for the Board of Management. Topics related to corporate governance were regularly on the agenda: the resolution regarding the Declaration of Conformity with the German Corporate Governance Code and the discussion of the self-assessment findings of the Supervisory Board and its committees in 2021. We made the requisite adjustments to the rules of procedure for the Supervisory Board and the Audit Committee in accordance with the German Act to Strengthen Financial Market Integrity (FISG). Furthermore, the objectives concerning the composition of the Supervisory Board and the competence profile for the Supervisory Board as a whole were updated, as was the set of criteria for the selection of shareholder representatives. In addition, we adopted resolutions concerning changes to the allocation of responsibilities within the Supervisory Board: fundamental responsibility for regularly addressing ESG topics was reallocated to the Standing Committee. In addition, the Board of Management updated us on ERGO's current performance and the implementation status of the Munich Re Group's ESG ambition.

We reviewed the compensation of the Board of Management on 9 December and, following a comprehensive discussion, we established the amount of their remuneration with effect from 2022. We also adopted the assessment bases for variable remuneration in 2022, and discussed the draft of the remuneration report with respect to the Board of Management and Supervisory Board, pursuant to the Act Implementing the Second Shareholders' Rights Directive (ARUG II). In addition, we adapted the rules on fringe benefits, remuneration in kind and other regulations concerning members of the Board of Management. During this meeting, the Group Chief Risk Officer informed us about the risk situation of the Group. Furthermore, the Board of Management reported on current topics, presented us with the Group human resources report, and explained the focal points of human resources work within the Group. The Board of Management also informed us about the strategy and structure of reinsurance business in North America, and about the investment strategy – particularly as regards the Munich Re Group's sustainable investments. We also approved the financial planning for 2022 during this meeting.

Work of the committees

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

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

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

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

At its five meetings, the Standing Committee dealt with the preparation of the respective Supervisory Board meetings and, in particular, with topics of corporate governance. It prepared, among other items, the assessment of the effectiveness of the Supervisory Board as a whole and its individual committees (self-assessment). The Standing Committee also approved proposals by the Board of Management concerning the procedure regarding answering questions at the virtual Annual General Meeting. In addition, the Standing Committee assessed related-party transactions (internal procedure as per Section 111(2) of the Stock Corporation Act [AktG]). The Chairman of the Board of Management gave the Standing Committee regular updates on the shareholder structure.

In the reporting period, the Audit Committee held six meetings; all of these meetings were attended by the external auditor. At its meetings in February and March 2021, 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 2020 financial year. The Committee also discussed in detail the quarterly statements for Q1 and Q3 2021, and scrutinised both the 2021 Half-Year Financial Report and the findings of the external auditor's review. The Audit Committee furthermore heard regular reports on the key Solvency II figures and discussed the quarterly reporting to the Supervisory Authority in these meetings. In August 2021, the Committee thoroughly addressed the reforms specified in the German Act to Strengthen Financial Market Integrity (FISG). Other key tasks of the Audit Committee consisted in monitoring the Group's risk situation and risk management on an ongoing basis, and developing a risk strategy. In addition to the CRO's quarterly written reports, the Committee also obtained detailed verbal information from the Group Chief Risk Officer on several occasions. At one meeting, the Head of the Actuarial Function reported on significant developments at Munich Re. There were regular discussions about the internal control system and compliance topics – particularly individual compliance violations that were presented to the Audit Committee. The Group Chief Auditor informed the members of the Committee in full about the outcome of the audits for 2020 and the audit planning for 2021. The Audit Committee also received updates on the current status of individual audits. Without the Board of Management being present, the members of the Committee took the opportunity to regularly confer amongst themselves or with the Group Chief Auditor, the Group Chief Compliance Officer, the Group Chief Risk Officer, or the external auditor. In addition, the

Audit Committee and the external auditor exchanged views on selected topics on an ad-hoc basis between meetings. Furthermore, the Committee closely reviewed and monitored the auditor's independence. It regularly called for reports on the auditor's non-audit activities and on the utilisation of the statutory limit for awarding such contracts. The auditor also presented the Audit Committee with explanations of the key audit matters for the 2021 financial year. The Audit Committee regularly assessed the quality of the audit. In this context, the Committee continually examined the role of Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft (EY) as the auditor of Wirecard AG. The Audit Committee currently finds no indications of a negative impact on the audit of Munich Re. The Committee is satisfied with the qualifications and integrity of the persons on EY's audit team. Munich Re and EY discuss the composition of the audit team at least once a year. The Audit Committee also prepared a report for the full Supervisory Board on the appointment of the external auditor for the 2021 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 Committee commissioned EY with the audit for the 2021 financial year and also commissioned the auditor's review of the 2021 Half-Year Financial Report.

The Nomination Committee held one meeting in the reporting period. It discussed the medium-term succession planning of the Supervisory Board and deliberated on potential future candidates for nomination to the Supervisory Board. In this regard, the Committee took into account the objectives approved by the Supervisory Board regarding its composition, the competence profile for the Supervisory Board as a whole, and the set of criteria for the selection of shareholder representatives.

There was again no need to convene the Conference Committee in the 2021 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 2021. Since issuing its last Declaration of Conformity in November 2020, Munich Re has complied with all of the recommendations of the German Corporate Governance Code as amended on 16 December 2019 (published on 20 March 2020).

Together with the Board of Management, we decided in December 2021 to update the Declaration of Conformity. The Supervisory Board member Renata Jungo Brüngger sits on the Board of Management of Daimler AG (now known as Mercedes-Benz Group AG, effective 1 February 2022). Following restructuring measures undertaken by the Daimler Group, she accepted two supervisory board memberships at companies that are now to be classified as non-group companies. This deviation from recommendation C.5 of the German Corporate Governance Code necessitated an update of the Declaration of Conformity.

In accordance with their own assessment, all ten shareholder representatives are independent within the meaning of the German Corporate Governance Code.

In order to avoid even the semblance of work or decision-making processes being influenced by personal interests, each member of the Supervisory Board promptly discloses any conflicts of interest. Where a current Supervisory Board member was on the Board of Management during a period which is currently being dealt with by the Supervisory Board, the member in question does not participate in any of the discussions of the matter or in any related resolutions. This was the approach I took for one agenda item in the 2021 financial year.

The Supervisory Board also met without the Board of Management.

Members of the Supervisory Board were again invited to participate in an internal information event in 2021. Nearly all members used the opportunity to learn more about the latest topics in sustainability reporting, underwriting, cyber security and information security. The Company also provided the members of the Supervisory Board with extensive electronic training material for self-study focusing on underwriting, risk management, accounting, investment, controlling, sustainability, digitalisation, etc. Before they took up their appointments, new members of the Supervisory Board also received specially compiled informational material to prepare for their new role. Some Supervisory Board members also took advantage of one-on-one info sessions with designated Company staff members.

In my role as Chairman of the Supervisory Board, I held discussions on topics relevant to the Supervisory Board with investors and proxy advisors as part of an ongoing dialogue with investors. The discussions in 2021 addressed the remuneration report with respect to the Board of Management and Supervisory Board, the appointment of the external auditor, and topics that will be submitted to the Annual General Meeting on 28 April 2022.

Changes on the Board of Management

For personal reasons, Doris Höpke did not extend her appointment that will expire on 30 April 2022, and will leave the Company.

Changes on the Supervisory Board

Benita Ferrero-Waldner resigned from the Supervisory Board with effect from the end of the 2021 Annual General Meeting. On 28 April 2021, the Annual General Meeting elected Carinne Knoche-Brouillon for the remainder of Benita Ferrero-Waldner's term of office.

Eva-Maria Haiduk resigned from the Supervisory Board with effect from 30 June 2021. With effect from 1 July 2021, Angelika Judith Herzog – who had been elected as a substitute member by employee representatives in 2019 – became a Supervisory Board member for the remainder of Eva-Maria Haiduk's term of office.

Gabriele Sinz-Toporzysek resigned from the Supervisory Board with effect from 31 January 2022. With effect from 1 February 2022, Markus Wagner – who had been elected as a substitute member by employee representatives in 2019 – became a Supervisory Board member for the remainder of Gabriele Sinz-Toporzysek's term of office.

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

Company and Group financial statements for 2021, Solvency II reporting and non-financial information

The external auditor EY duly audited the annual financial statements of Munich Reinsurance Company, the Group financial statements and the combined management report as at 31 December 2021, and issued them with an unqualified auditor's opinion. The German Public Auditor responsible for the engagement is Thomas Kagermeier.

These 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 2022, the Audit Committee intensively discussed the preliminary year-end figures as at 31 December 2021, along with the Board of Management's proposal for appropriation of the net retained profits. At its meeting on 22 February 2022, the Supervisory Board also intensively discussed the preliminary year-end figures as at 31 December 2021, along with the Board of Management's proposal for appropriation of the net retained profits. On 15 March 2022, the Audit Committee prepared the Supervisory Board's resolution on the adoption of the Company financial statements and the approval of the Group financial statements. To this end, the Audit Committee examined the annual and consolidated financial statements and the combined management report (including the combined non-financial statement) in advance. It discussed these at length with the external 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 report, including audit activity. The Chair of the Audit Committee briefed the full Supervisory Board about the outcome of its consultations at the balance sheet meeting. In its March meeting, the Audit Committee discussed the preliminary key figures under Solvency II reporting – and the Solvency II ratio in particular – and reported on this to the full Supervisory Board.

The full Supervisory Board also checked the financial statements of Munich Reinsurance Company and the Group, and the combined management report (including the combined non-financial statement). The auditor's reports were available to all members of the Supervisory Board and were discussed in detail at the balance sheet meeting of the Supervisory Board on 16 March 2022 in the presence of the external auditor. The audit findings regarding the combined non-financial statement were also considered by the Supervisory Board. The external auditor reported on the scope, the main points, and the key findings of the audit – and went into particular detail on both the key audit matters and the audit activity conducted. There were no reports of material weaknesses in the internal control system or the risk management system.

On the basis of this comprehensive examination, the Supervisory Board raised no objections concerning the outcome of the external audit. It approved the Company and Group financial statements on 16 March 2022. The financial statements were thus adopted. Having carefully weighed all relevant aspects, the Supervisory Board followed the proposal of the Board of Management for appropriation of the net retained profits.

Words of thanks to the Board of Management and employees

The Supervisory Board wishes to thank all members of the Board of Management and staff worldwide. With their work and commitment, they have contributed to a very gratifying result for Munich Re.

Munich, 16 March 2022

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 2021

Member of the Supervisory Board	Supervisory Board	Participation quota Supervisory Board	Personnel Committee	Remuneration Committee	Standing Committee	Audit Committee	Nomination Committee
Nikolaus von Bomhard	6/6	100%	3/3		5/5	6/6	1/1
Anne Horstmann	6/6	100%			5/5		
Ann-Kristin Achleitner	6/6	100%		4/4		6/6	1/1
Clement Booth	6/6	100%					
Ruth Brown	6/6	100%					
Stephan Eberl	6/6	100%	3/3	4/4	5/5		
Frank Fassin	6/6	100%					
Benita Ferrero-Waldner[1]	3/3	100%					
Ursula Gather	6/6	100%					
Gerd Häusler	6/6	100%			5/5		
Eva-Maria Haiduk[2]	3/3	100%					
Angelika Judith Herzog[3]	3/3	100%					
Renata Jungo Brüngger	6/6	100%	3/3	4/4			
Stefan Kaindl	6/6	100%				6/6	
Carinne Knoche-Brouillon[4]	3/3	100%					
Gabriele Mücke	6/6	100%					
Ulrich Plottke	5/6	83%				5/6	
Manfred Rassy	6/6	100%					
Gabriele Sinz-Toporzysek[5]	4/6	67%					
Carsten Spohr	6/6	100%					
Karl-Heinz Streibich	6/6	100%					
Maximilian Zimmerer	6/6	100%			5/5	6/6	1/1
Participation quota (average)		**98%**	**100%**	**100%**	**100%**	**97%**	**100%**

1 Member until 28 April 2021.
2 Member until 30 June 2021.
3 Member from 1 July 2021.
4 Member from 28 April 2021.
5 Member until 31 January 2022.

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

Pursuant to Section 289f and Section 315d of the German Commercial Code (HGB), Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München (Munich Reinsurance Company Joint-Stock Company in Munich) has issued the following Statement on Corporate Governance and Group Statement on Corporate Governance. This Statement also contains the disclosures and explanatory notes as recommended in the German Corporate Governance Code in the version dated 16 December 2019 (published on 20 March 2020). 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 but one of the recommendations and proposals of the German Corporate Governance Code. There are no overriding statutory provisions that render the recommendations and suggestions of the German Corporate Governance Code not applicable to Munich Reinsurance Company Joint-Stock Company in Munich.

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

Since the latest Declaration of Conformity in November 2020, Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München has complied with all of the recommendations of the German Corporate Governance Code as amended on 16 December 2019 (published on 20 March 2020) and will continue to do so in future.

Munich, November 2021

The Board of Management The Supervisory Board

The Declaration of Conformity was updated as follows on 10 December 2021:

Update of the 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

In November 2021, Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München ("the Company") published the latest Declaration of Conformity with the recommendations of the German Corporate Governance Code of 16 December 2019 (published on 20 March 2020, "DCGK"). The Declaration of Conformity has been updated and supplemented as follows:

Recommendation C.5 DCGK: Number of supervisory board mandates

In accordance with recommendation C.5 DCGK, members of the management board of a listed company shall not have, in aggregate, more than two supervisory board mandates in non-group listed companies or comparable functions, and shall not accept the chairmanship of a supervisory board in a non-group listed company.

The Supervisory Board member Renata Jungo Brüngger sits on the Board of Management of Daimler AG. Following restructuring measures undertaken by the Daimler Group, Ms. Jungo Brüngger has accepted two supervisory board memberships at companies that, in the view of Daimler AG, are now to be classified as non-group companies: Firstly, she is a supervisory board member of Daimler Truck AG. Secondly, she is a supervisory board member of the listed (since today) company Daimler Truck Holding AG, which holds all shares in Daimler Truck AG.

The Supervisory Board has satisfied itself that Ms. Jungo Brüngger will continue to have enough time to fulfil her tasks at the Company.

Otherwise, the Declaration of Conformity of November 2021 remains unchanged.

Munich, 10 December 2021

The Board of Management The Supervisory Board

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

Corporate legal structure

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

Additional corporate governance requirements are set out in the regulatory requirements for (re)insurance companies, especially the German Insurance Supervision Act and the European supervisory regulations (Solvency II). They include specific and supplementary 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.

The Annual General Meeting

The Annual General Meeting approves the appropriation of profits, the actions of the Board of Management and Supervisory Board, the appointment of shareholder representatives to the Supervisory Board, amendments to the Articles of Association and capital measures.

The principle of "one share, one vote" applies at the Annual General Meeting of Munich Reinsurance Company. Shareholders can opt for postal or electronic voting. Until the vote count begins, shareholders can change their votes online. Shareholders may also have their voting rights exercised at the Annual General Meeting by one of the proxies nominated by Munich Reinsurance Company. These proxies will exercise the voting rights solely in accordance with the instructions they receive from the shareholders. Power of attorney and instructions may also be issued online to the Company proxies, and also changed online until the vote count begins. Shareholders may watch the whole Annual General Meeting live on the internet.

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

The Annual General Meeting on 28 April 2021 was conducted as a virtual Annual General Meeting – with neither shareholders nor their authorised representatives physically present – on account of the special circumstances caused by the coronavirus pandemic and in accordance with Section 1(2) of the German Act Concerning Measures Under the Law of Companies, Cooperative Societies, Associations, Foundations and Commonhold Property to Combat the Effects of the COVID-19 Pandemic of 27 March 2020 (Federal Law Gazette, Part 1, p. 570), as amended by the Act on the Further Shortening of the Residual Debt Relief Procedure and on the Adjustment of Pandemic-Related Provisions under the Law of Companies, Associations and Foundations as well as Tenancy and Lease Law dated 22 December 2020 (Federal Law Gazette, Part 1, p. 3328 ff.).

Board of Management

In 2021, the Board of Management of Munich Reinsurance Company comprised nine members, including one woman.

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

Member of the Board of Management/Responsibilities	Memberships of statutory supervisory boards[1]	Memberships of comparable bodies of German and foreign business enterprises[1]
Dr. Joachim Wenning Chairman of the Board of Management Group Strategy and M&A Group Communications Group Audit Economics, Sustainability & Public Affairs[3] Group Human Resources Group Executive Affairs Group Compliance and Legal	ERGO Group AG[2] (Chair)	–
Dr. Thomas Blunck Life and Health Capital Partners	ERGO Group AG[2]	–
Nicholas Gartside Chief Investment Officer Group Investments Third Party Asset Management	MEAG MUNICH ERGO AssetManagement GmbH[2] (Chair)	–
Stefan Golling Global Clients and North America	–	Munich Re America Corporation, USA[2] (Chair) Munich Reinsurance America, Inc., USA[2] (Chair)
Dr. Doris Höpke (until 30 April 2022) Labour Relations Director Europe and Latin America Human Resources	–	New Reinsurance Company Ltd., Switzerland[2] (President)
Dr. Torsten Jeworrek Reinsurance Development Data and Analytics Internet of Things Corporate Underwriting Claims Accounting, Controlling and Central Reserving for Reinsurance Information Technology	ERGO Digital Ventures AG[2] ERGO International AG[2]	–
Dr. Christoph Jurecka Chief Financial Officer Financial and Regulatory Reporting Group Controlling Integrated Risk Management Group Taxation Investor and Rating Agency Relations	ERGO Group AG[2] MEAG MUNICH ERGO AssetManagement GmbH[2]	–
Dr. Achim Kassow Asia Pacific and Africa Central Procurement Services	ERGO International AG[2]	–
Dr. Markus Rieß Primary Insurance/ERGO	ERGO Deutschland AG[2] (Chair) ERGO Digital Ventures AG[2] (Chair) ERGO International AG[2] (Chair) ERGO Technology & Services Management AG[2] (Chair)	Next Insurance, Inc., USA

1 As at 31 December 2021.
2 Position held within the Munich Re Group.
3 Including responsibility for ESG issues.

The Board of Management is responsible for managing the Company, in particular for setting the Company's objectives and determining strategy. It is bound to act in the Company's best interests. It should take account of the interests of shareholders, employees, and other stakeholders of Munich Reinsurance Company, with the objective of sustainable value creation. The Board of Management is responsible for effecting adequate risk management and risk control. 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 of Munich Reinsurance Company reports directly to the Chairman of the Board of Management. Group Compliance and Legal manages the compliance activities and monitors their implementation by means of the Compliance Management System (CMS). The CMS is the methodical framework for the structured implementation of early warning, risk control, consulting and monitoring functions.

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

The Group has a comprehensive reporting system for issues relevant to compliance. This allows for regular and ad-hoc reporting to the Board of Management, the Audit Committee or equivalent and ensures ongoing documentation. The reporting includes, but is not limited to, significant compliance risks and measures to mitigate these risks, material compliance violations, statements regarding the maturity of the CMS as well as an overview of the adequacy and effectiveness of the procedures implemented to comply with the external requirements. It also comprises the regular exchanges with the supervisory authorities concerned.

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 measures.

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 Chair has the casting vote. The members of the Board of Management cooperate closely for the benefit of the Company. On an ongoing basis, they inform each other about all important business transactions.

Composition and working procedures of the Board of Management committees

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

Composition of the Board of Management committees[1]

Group Committee	Dr. Joachim Wenning (Chair) Dr. Christoph Jurecka
Reinsurance Committee	Dr. Torsten Jeworrek (Chair) Dr. Thomas Blunck Stefan Golling Dr. Doris Höpke Dr. Achim Kassow Chief Financial Officer for the reinsurance field of business[2]
Strategy Committee	Dr. Joachim Wenning (Chair) Nicholas Gartside Dr. Torsten Jeworrek Dr. Christoph Jurecka Dr. Markus Rieß

1 As at 31 December 2021.
2 No voting rights.

Group Committee

The Group Committee 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 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 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

All three Board committees have set up subcommittees: specifically, the Group Committee has established the Group Risk Committee; the Reinsurance Committee has set up the Global Underwriting and Risk Committee as well as the Board Committee IT Investments; and the Strategy Committee has established the ESG Committee. These subcommittees also include senior executives from Munich Reinsurance Company and the Group who do not have voting rights.

Subcommittees of the Board of Management committees[1]

Group Risk Committee	Dr. Christoph Jurecka (Chair) Dr. Joachim Wenning Chief Risk Officer (Group)[2]
Global Underwriting and Risk Committee	Dr. Torsten Jeworrek (Chair) Dr. Thomas Blunck Stefan Golling Chief Financial Officer for the reinsurance field of business[2] Chief Risk Officer (Group)[2] Head of Investment Strategies[2] Head of CU (Corporate Underwriting)[2]
ESG Committee	Dr. Joachim Wenning (Chair) Nicholas Gartside Dr. Torsten Jeworrek Dr. Christoph Jurecka Dr. Markus Rieß Head of Economics, Sustainability and Public Affairs[2]
Board Committee IT Investments	Dr. Thomas Blunck (Chair) Stefan Golling Dr. Achim Kassow Chief Financial Officer for the reinsurance field of business[2]

1 As at 31 December 2021.
2 No voting rights.

The work of these subcommittees is governed by their own written rules of procedure. Both the Group Risk Committee and the Global Underwriting and Risk Committee deal with risk management issues, albeit with different emphases. The Board Committee IT Investments is responsible for IT investments. The ESG Committee, which has been in place since 1 July 2021, is the central management committee for fundamental, ESG-related strategic matters in the Group.

Remuneration of the members of the Board of Management

The remuneration system for members of the Board of Management is determined by the Supervisory Board and the Annual General Meeting is asked to endorse the system upon any material change and at least every four years. This was most recently the case on 28 April 2021. The remuneration report contains detailed information on the remuneration paid to the members of the Board of Management.

The remuneration system for members of the Board of Management and remuneration report (including the Auditor's opinion) are available at www.munichre.com/board-of-management.

Collaboration between Board of Management and Supervisory Board

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

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

Supervisory Board

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

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

Member of the Supervisory Board	Seats held on statutory supervisory boards	Membership of comparable bodies of German and foreign business enterprises
Dr. Nikolaus von Bomhard (Chairman) Chairman of the Supervisory Board of Munich Reinsurance Company Member since 30 April 2019	Deutsche Post AG (Chair)[4]	Athora Holding Ltd., Bermuda (Chair)[6]
Dr. Anne Horstmann[2] (Deputy Chair) Employee of ERGO Group AG Member since 30 April 2014	–	–
Prof. Dr. Dr. Dr. h.c. Ann-Kristin Achleitner Scientific Co-Director of the Center for Entrepreneurial and Financial Studies (CEFS) at the Technical University of Munich Member since 3 January 2013	–	Lazard Ltd., USA[4] Linde plc, Ireland[4] Luxembourg Investment Company 261 S.à r.l., Luxembourg[5]
Clement B. Booth Member of the Board of Directors of Howden Group Holdings Limited, United Kingdom Member since 27 April 2016	Howden Deutschland AG (Chair)[6 7]	Howden Group Holdings Limited, United Kingdom
Ruth Brown[2] Foreign Services Specialist at DAS Legal Expenses Insurance Member since 30 April 2019	–	–
Stephan Eberl[2] Chair of the Staff Council of Munich Reinsurance Company Member since 30 April 2019	–	–
Frank Fassin[2] Coordinating Regional Section Head Department A ver.di North Rhine-Westphalia Member since 22 April 2009	ERGO Group AG[3]	–
Dr. Benita Ferrero-Waldner Member of the Board of Directors of Santander Consumer Finance S.A., Spain Member from 12 February 2010 until 28 April 2021	–	Santander Consumer Finance S.A., Spain
Prof. Dr. Dr. h.c. Ursula Gather Chair of Board of Trustees of Alfried Krupp von Bohlen und Halbach Foundation Member since 30 April 2014	thyssenkrupp AG[4]	–
Gerd Häusler Member of the Supervisory Board of Auto1 Group SE, Munich Member since 30 April 2014	Auto1 Group SE[4]	–
Eva-Maria Haiduk[2] Employee of ITERGO Informationstechnologie GmbH Member from 30 April 2019 until 30 June 2021	–	–
Angelika Judith Herzog[2] Chair of the Staff Council of ERGO Direkt AG Member since 1 July 2021	–	–
Renata Jungo Brüngger Member of the Board of Management of Daimler AG (from 1 February 2022 Mercedes-Benz Group AG) Member since 3 January 2017	Daimler Truck Holding AG[4 8] Daimler Truck AG	–
Stefan Kaindl[2] Head of Department at Munich Reinsurance Company Member since 30 April 2019	–	–

See the end of the table for footnotes.

Member of the Supervisory Board	Seats held on statutory supervisory boards	Membership of comparable bodies of German and foreign business enterprises
Dr. Carinne Knoche-Brouillon Member of management of C.H. Boehringer Sohn AG & Co. KG Member since 28 April 2021	–	–
Gabriele Mücke[2] Chair of the Board of Management of Neue Assekuranz Trade Union – NAG Member since 30 April 2019	–	–
Ulrich Plottke[2] Employee of ERGO Group AG Member since 30 April 2014	ERGO Group AG[3]	–
Manfred Rassy[2] Exempted member of the Staff Council of Munich Reinsurance Company Member since 30 April 2019	–	–
Gabriele Sinz-Toporzysek[2] Employee of ERGO Beratung und Vertrieb AG Member from 30 April 2014 until 31 January 2022	–	–
Carsten Spohr Chair of the Board of Management of Deutsche Lufthansa AG Member since 29 April 2020	–	–
Karl-Heinz Streibich Co-President of acatech – German Academy of Science and Engineering Member since 30 April 2019	Software AG (Chair)[4] Siemens Healthineers AG[4] Deutsche Telekom AG[4]	–
Markus Wagner[2] Employee of ERGO Beratung und Vertrieb AG Member since 1 February 2022	ERGO Beratung und Vertrieb AG[3]	–
Dr. Maximilian Zimmerer Member of the Supervisory Board of Munich Reinsurance Company Member since 4 July 2017	Deutsche Beteiligungs AG[4] Investmentaktiengesellschaft für langfristige Investoren TGV (Chair)[6]	–

1 As at 31 December 2021, members as at 7 March 2022.
2 Employee representative.
3 Mandate within the Munich Re Group.
4 Listed on the stock exchange.
5 Membership of a non-statutory supervisory board.
6 Company with fewer than 500 employees.
7 Mandate within Howden Group Holdings Limited.
8 Daimler Truck Holding AG holds all shares in Daimler Truck AG.

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 previously applicable to (re)insurance companies, the Supervisory Board until 2021 appointed the external auditor for the Company and Group financial statements and for the Half-Year Financial Report. Owing to new legislation, the external auditor will be appointed by the Annual General Meeting from 2022 onwards.

Working procedures of the Supervisory Board

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

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

The Supervisory Board normally meets at least six times during the financial year. Supervisory Board meetings are generally held with the members of the Supervisory Board personally present at the meeting (face-to-face meeting). If the Chairman of the Supervisory Board so rules, meetings of the Supervisory Board may also be held using electronic media, and individual members of the Supervisory Board may attend meetings via electronic media. The members of the Board of Management attend the meetings of the Supervisory Board unless the Chairman of the Supervisory Board decides otherwise. If the external auditor is consulted as an expert appraiser, the Board of Management does not attend this meeting unless the Supervisory Board considers the Board of Management's attendance to be necessary. The Supervisory Board also meets regularly without the Board of Management.

The Supervisory Board is quorate if all its members have been invited to the meeting or called upon to vote, and if fifteen members – or ten members including the Chairman – participate in the vote. Supervisory Board resolutions are adopted by a majority of votes cast, unless the law or the Articles of Association require otherwise. In the event of a

Supervisory Board vote being tied, should a second vote on the same motion also result in a tie, the Chairman of the Supervisory Board has a casting vote. The Chairman is authorised to make declarations for the Supervisory Board based on resolutions.

Self-assessment

The Supervisory Board and its committees regularly assess how effectively the Supervisory Board as a whole and also its individual committees perform their duties. Following preparations by the Standing Committee, the Supervisory Board conducted an internal self-assessment in 2021 based on an informal query. The Supervisory Board thoroughly discussed the findings of this self-assessment at its meeting on 13 October 2021. The self-assessment confirms that the working relationships within the Supervisory Board and with the Board of Management are professional and constructive, and characterised by a high degree of trust and candour. In addition, the findings document the efficient organisation and execution of meetings, as well as appropriate reporting by the Board of Management. There was no indication of any fundamental need for change. A few optimisation measures were identified and are being put into practice.

Composition and working procedures of the Supervisory Board committees

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

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

Composition of the Supervisory Board committees[1]

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

1 As at 31 December 2021.

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

The main responsibilities of the committees are as follows (as at 31 December 2021):

Standing Committee

The Standing Committee prepares meetings of the Supervisory Board, unless another committee is responsible for doing so. It decides on matters of Company business requiring the Supervisory Board's consent, unless the full Supervisory Board or another committee is responsible. In addition, the Standing Committee is responsible for an internal procedure – as per Section 111a(2) of the Stock Corporation Act (AktG) – that assesses related-party transactions. The Committee regularly deals with sustainability issues (ESG), except in cases where other committees are 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 for the Supervisory Board. Moreover, the Standing Committee prepares the annual self-assessment of the effectiveness of the Supervisory Board as a whole and its individual committees with regard to the performance of their duties. Further details about the self-assessment in the past financial year are provided in the section "Self-assessment" and in the Report of the Supervisory Board.

Personnel Committee

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

Remuneration Committee

The Remuneration Committee is responsible for preparing the Supervisory Board's resolutions on determining, amending, and regularly reviewing the remuneration system for the Board of Management; this Committee also determines and reviews the total remuneration of the individual members of the Board of Management. In addition, the Remuneration Committee prepares the Supervisory Board's resolutions regarding determination of the level of variable remuneration components, determination of the performance criteria and objectives for variable remuneration, the assessment of objectives, and the determination of the variable remuneration to be granted to the individual Board of Management members. The Personnel Committee may be involved in this assessment. Where sustainability (ESG) issues are concerned, the Standing Committee may be involved in determining and assessing the performance criteria and objectives for variable remuneration. The Remuneration Committee is also responsible for preparing the remuneration components of the employment contracts members of the Board of Management, and for remuneration reporting with regard to the remuneration of members of the Board of Management and the Supervisory Board.

Audit Committee

The Audit Committee prepares Supervisory Board resolutions on the adoption of the Company's annual financial statements and approval of the Group financial statements. It discusses the Half-Year Financial Report and the material information underlying the quarterly statements, 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 accounting and the accounting process. It also oversees the appropriateness and effectiveness of the risk management system, the internal control system, the CMS (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.

The Audit Committee prepares the procedure for selecting the external auditor, in particular the Supervisory Board's proposal to the Annual General Meeting. The Audit Committee is responsible for assessing performance and monitoring the independence of the external auditor; it also assures the quality of the audit and any additional services provided by the external auditor. In particular, it appoints the external auditor for the Company and Group financial statements as well as for any voluntary external audit of the combined non-financial statement. The Audit Committee also determines focal points of the audits and agrees the auditor's fee for the annual audits; the same applies to the review of the Half-Year Financial Report and the review of the solvency balance sheets. Beyond this, the Committee handles the approval and monitoring of non-audit services.

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

In this connection, the Audit Committee hears reports not only from the Board of Management but also directly from the Group Chief Compliance Officer, the Group Chief Auditor, the Group Chief Risk Officer, the Head of the Actuarial Function and, if required, from the General Counsel. Through the Chair of the Audit Committee, every member of the Audit Committee may obtain information from the heads of the central divisions responsible for the accounting process, the internal control system, the risk management system, the internal audit system and the audit of financial statements.

Nomination Committee

The Nomination Committee is made up exclusively of shareholder representatives.

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

Conference Committee

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

Remuneration of Supervisory Board members

The remuneration of the members of the Supervisory Board is laid down in the Articles of Association. The remuneration report contains detailed information on the remuneration paid to the members of the Supervisory Board. The resolution of the Annual General Meeting on the system of remuneration for members of the Supervisory Board dated 28 April 2021 and the remuneration report (including the Auditor’s opinion) are available at www.munichre.com/supervisory-board.

Other corporate governance practices

Munich Re Code of Conduct

Our business actions are geared to our Group-wide guidelines and standards that go beyond legal and German Corporate Governance Code requirements. For us, “compliance” is not simply adhering to legal provisions, statutes and internal rules, but also extends to the fact that the decisions we take and activities we engage in are guided by our principles and values.

The main principles for compliant conduct and integrity are laid down in our Code of Conduct, which provides orientation to all employees and responsible management bodies in their daily work. The main principles include not only adherence to legal provisions and statutes but also a quest for sustainable value creation and responsibility.

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

UN 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.

Principles for Responsible Investment (PRI)

In 2006, we became the first German company to sign the PRI. We implement the principles for sustainable investment through our Group-wide investment management unit GIM and our asset manager MEAG, for example, and we report annually on adherence to these principles.

Net-Zero Asset Owner Alliance (AOA)

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

Principles for Sustainable Insurance (PSI) and Net-Zero Insurance Alliance (NZIA)

The 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. Moreover, we were one of the founding members of the NZIA in 2021.

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 at 31 December 2021, the percentage of women on the Board of Management was 11.1%; with 15.0% at the first management level and 22.9% at the second management level.

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.

In addition to the established measures, such as mentoring, training and coaching programmes, as well as women's networks, further Group-wide activities have been rolled out for the purpose of achieving these targets. The emphasis of these activities is on consistent processes for staffing management positions and placing an even greater focus on equal opportunities when developing talent. These measures are backed by various different communication initiatives. Defined KPIs are monitored on a quarterly, Group-wide basis to reflect the status and progress of the measures.

This focused approach is beginning to bear fruit. It was thus possible to increase to 37.8% the percentage of female managers worldwide. Women represented a significant 38% of the top talent programme "Group Management Platform", 38% of "Hydrogen" (high-potential programme in reinsurance) and 55% of "ERGO Leadership Programme" (high-potential programme at ERGO) as at 31 December 2021.

As part of implementing the German Act on Equal Participation of Men and Women in 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 2021, the Supervisory Board set a target quota to be achieved by 31 December 2025 that 25% of the members of the Board of Management should be women. As at 1 January 2021, the Board of Management set the target quota for female participation at 15% for the first management level below the Board of Management, and 35% for the second management level below the Board of Management. Both targets are to be achieved by 31 December 2025.

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

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

On 31 December 2021, 55% of seats on the Supervisory Board of Munich Reinsurance Company were occupied by men and 45% by women, of which four women were shareholder representatives and five were employee representatives. The minimum requirements are thus met by both sets of representatives on the Supervisory Board.

Diversity concepts for the Board of Management and Supervisory Board

Diversity is taken into account when filling management positions in the Company and in the composition of the Board of Management and the Supervisory Board.

Diversity is an important part of Munich Re's corporate culture. The tenets of diversity are set out in the Diversity Policy. This applies to all employees across the Group.

Diversity concept for the Board of Management

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

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

To implement the requirements of Solvency II, the Board of Management and Supervisory Board have drawn up a Fit and Proper Policy; this policy sets out fitness and propriety requirements for Board members and other persons. 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, physics, and political science). The CVs of the individual members of the Board of Management have different focuses – in operative business, in certain markets, or in specialist areas. The diverse careers and personalities within the Board of Management express the versatility of our business model, and reflect the complex requirements faced by the Board.

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

The average age of the members of the Board of Management at the end of the 2021 financial year was 53; the youngest Board member was 45, and the oldest was 60. The age limit for membership of the Board of Management is 67; members of the Board of Management must leave the Board no later than the end of the calendar year in which they turn 67. The requirements for age limits are thus met.

First-time appointments of members of the Board of Management are as a rule for a period of three years. A reappointment more than one year before the end of the appointment period with simultaneous cancellation of the current appointment will only be made in special circumstances. With the exception of aspects relating to remuneration, which are dealt with by the Remuneration Committee, preparation for the appointment of members of the Board of Management is the responsibility of the Personnel Committee of the Supervisory Board, which provides suggestions for suitable candidates to the full Supervisory Board. The Personnel Committee is guided by the Fit and Proper Policy, the specific requirements of the relevant function, and the above-mentioned diversity considerations. In conjunction with the Board of Management, the Personnel Committee is also responsible for succession planning. Succession planning for the Board of Management is systematic and geared to the strategic objectives and future challenges of the Group. Candidates are mainly selected from the top Group-wide talent pool, the Group Management Platform (GMP). Care is taken on the GMP to make sure that there is a balanced composition in terms of gender, internationality, fields of business – reinsurance, ERGO/MEAG/Group functions – and diversity of experience and profiles. Succession planning is updated regularly, as a rule annually. To ensure that the Group perspective is taken into account, the Chairman of the Board of Management of Munich Reinsurance Company, the Chair of the Reinsurance Committee, the Chairman of the Board of Management of ERGO Group AG, the Labour Relations Director of Munich Reinsurance Company and the Labour Relations Director of ERGO Group AG take part in this session.

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

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

The composition of the Supervisory Board also follows a concept of diversity with regard to its members' professional and educational background, internationality, ethnicity, 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, ethnicity, age and gender, thereby enhancing the Board's efficiency for the benefit of the Company.

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

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

In accordance with the competence profile for the Supervisory Board as a whole and both sets of criteria, it must be ensured that – in terms of the professional and educational background of its members – the Supervisory Board as a whole has adequate knowledge, skills and experience with regard to the markets, business processes, competition and the requirements of reinsurance, primary insurance and investment in order to perform its duties properly. Appropriate knowledge of the following fields is also required: risk management, accounting, auditing, controlling and internal audit, asset-liability management, law, regulatory supervision, compliance, tax, and other strategically relevant topics, such as digitalisation, innovation and corporate social responsibility/ESG. The competence profile also includes a good overall understanding of the business model. The members of the Supervisory Board 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, in particular taking into account legal requirements and the competence profile. At least one member of the Audit Committee must have expertise in accounting and at least one other member of the Audit Committee must have expertise in financial statement auditing; at least one of these members must be independent.

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

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

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

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

In its current composition, the Supervisory Board demonstrates diversity of professional training and education, and also has the overall knowledge, expertise and professional experience necessary for the proper performance of its duties. Members have diverse professional and educational focuses (including law, economics, mathematics, natural sciences, engineering, and commercial and insurance-specific training). The Supervisory Board members also have management experience in various sectors (such as finance and insurance, software, automotive, aviation and the pharmaceutical industry), and extensive experience in academia. In addition, above all the Chair of the Audit Committee of the Supervisory Board – Maximilian Zimmerer – , Ann-Kristin Achleitner and Nikolaus von Bomhard as members of the Audit Committee, and Supervisory Board member Gerd Häusler possess recognised expertise in accounting, auditing and ESG. As a result, all shareholder representatives in the Standing Committee and Audit Committee are financial experts and ESG experts. As Chair of the Audit Committee, Maximilian Zimmerer has special knowledge and experience in the application of accounting principles and internal control processes; furthermore, he is independent, and familiar with auditing.

Competencies of the shareholder representatives[1]

		von Bomhard	Achleitner	Booth	Gather	Häusler
Tenure	Joined Board in	2019	2013	2016	2014	2014
Personal suitability	Regulatory requirement (Fit & Proper)	✓	✓	✓	✓	✓
	Independence[2]	✓	✓	✓	✓	✓
	No overboarding[2]	✓	✓	✓	✓	✓
Diversity	Gender	Male	Female	Male	Female	Male
	Year of birth	1956	1966	1954	1953	1951
	Nationality	German	German	British/German	German	German
	International experience	✓	✓	✓	✓	✓
	Educational background	Lawyer	Lawyer/ Economist	Economist	Mathemati-cian/ Statistician	Lawyer/ Economist
Professional suitability	Actuarial experience[3]	✓	✓	✓	✓	✓
	Investment management[4]	✓	✓	✓	✓	✓
	Accounting[5]	✓	✓	✓	✓	✓
	Risk management[6]	✓	✓	✓	✓	✓
	Corporate goverance and control[7]	✓	✓	✓	✓	✓
Special expertise[8]	Financial expert per Section 100 (5) AktG	✓	✓	–	–	✓
	Accounting expert	✓	✓	–	–	✓
	Audit expert	✓	✓	–	–	✓
	Digital transformation/ Information technology	–	✓	✓	✓	–
	Cyber security and information security	–	–	–	✓	–
	Corporate social responsibility/ESG	✓	✓	✓	✓	✓
	Climate change/ Climate risks	✓	–	✓	–	✓
	Staff management/ Human resources	✓	✓	✓	✓	✓
	Natural sciences	–	–	✓	✓	–
	Engineering	–	–	✓	✓	–

See the end of the table for footnotes.

→		Jungo Brünggger	Knoche-Brouillon	Spohr	Streibich	Zimmerer
Tenure	Joined Board in	2017	2021	2020	2019	2017
Personal suitability	Regulatory requirement (Fit & Proper)	✓	✓	✓	✓	✓
	Independence[2]	✓	✓	✓	✓	✓
	No overboarding[2]	–	✓	✓	✓	✓
Diversity	Gender	Female	Female	Male	Male	Male
	Year of birth	1961	1965	1966	1952	1958
	Nationality	Swiss	French/ German	German	German	German
	International experience	✓	✓	✓	✓	✓
	Educational background	Lawyer	Pharmacist	Engineer	Engineer	Lawyer
Professional suitability	Actuarial experience[3]	✓	–	–	–	✓
	Investment management[4]	–	✓	✓	✓	✓
	Accounting[5]	✓	✓	–	✓	✓
	Risk management[6]	✓	–	✓	✓	✓
	Corporate goverance and control[7]	✓	✓	✓	✓	✓
Special expertise[8]	Financial expert per Section 100(5) AktG	–	–	–	–	✓
	Accounting expert	–	–	–	–	✓
	Audit expert	–	–	–	–	✓
	Digital transformation/ Information technology	✓	✓	✓	✓	✓
	Cyber security and information security	–	–	✓	✓	–
	Corporate social responsibility/ESG	✓	✓	✓	✓	✓
	Climate change/ Climate risks	✓	–	✓	✓	✓
	Staff management/ Human resources	✓	✓	✓	✓	✓
	Natural sciences	–	✓	–	✓	–
	Engineering	–	–	✓	✓	–

1 As at 31 December 2021; ✓ = Fitness: Evaluation as part of the annual self-assessment of the Supervisory Board with "good" or "sound knowledge". On a scale of A to E, this corresponds to an evaluation of at least B.
2 In conformity with the German Corporate Governance Code.
3 Skills and experience with regard to the markets, business processes, competition and the requirements of reinsurance and primary insurance (life and non-life).
4 Investment, asset-liability management.
5 Accounting, auditing, controlling.
6 Risk management (including internal control processes).
7 Law, regulatory supervision, compliance, internal audit, tax.
8 Result of a supplementary query as part of the annual self-assessment.

The different personalities within the Supervisory Board and their individual careers reflect the wide range of duties of the Supervisory 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 2021 financial year was 61; the youngest Board member was 51, and the oldest was 70. There is therefore a sufficient age mix on the Supervisory Board.

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

Independence

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

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

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

Consolidated financial statements and notes

Consolidated balance sheet as at 31 December 2021[1]

Assets

	Notes			31.12.2021	Prev. year		Change
		€m	€m	€m	€m	€m	%
A. Intangible assets							
I. Goodwill	(1)		3,092		2,782	310	11.1
II. Other intangible assets	(2)		1,286		1,223	64	5.2
				4,379	**4,005**	**374**	**9.3**
B. Investments							
I. Land and buildings, including buildings on third-party land	(3)		7,029		6,539	490	7.5
II. Investments in affiliated companies, associates and joint ventures	(5)		3,635		3,372	263	7.8
Thereof: Associates and joint ventures accounted for using the equity method			3,215		3,104	111	3.6
III. Loans	(6)		50,389		51,944	–1,555	–3.0
IV. Other securities							
1. Available for sale	(7)	162,468			155,389	7,079	4.6
2. At fair value through profit or loss	(8)	2,950			2,927	23	0.8
			165,418		158,316	7,102	4.5
V. Deposits retained on assumed reinsurance	(9)		9,027		7,980	1,047	13.1
VI. Other investments	(10)		4,803		4,800	3	0.1
				240,300	**232,950**	**7,350**	**3.2**
C. Insurance-related investments	**(8)**			**12,283**	**11,033**	**1,250**	**11.3**
D. Ceded share of technical provisions	**(11)**			**6,099**	**5,321**	**778**	**14.6**
E. Receivables							
I. Current tax receivables			715		765	–50	–6.5
II. Other receivables	(12)		29,058		25,431	3,627	14.3
				29,773	**26,196**	**3,577**	**13.7**
F. Cash at banks, cheques and cash in hand				**5,413**	**5,615**	**–202**	**–3.6**
G. Deferred acquisition costs	**(13)**						
Gross			10,545		9,617	928	9.6
Ceded share			–608		–498	–110	–22.0
Net				9,937	9,119	818	9.0
H. Deferred tax assets	**(14)**			**503**	**278**	**225**	**80.9**
I. Other assets	**(15)**			**3,167**	**3,215**	**–49**	**–1.5**
J. Non-current assets held for sale	**(16)**			**552**	**215**	**337**	**156.5**
Total assets				**312,405**	**297,946**	**14,458**	**4.9**

1 You can download this information as an Excel file; please refer to the Financial Supplement under www.munichre.com/results-reports

Equity and liabilities

	Notes	31.12.2021		Prev. year	Change	
		€m	€m	€m	€m	%
A. Equity	(17)					
I. Issued capital and capital reserve		7,432		7,432	0	0.0
II. Retained earnings		13,822		13,568	254	1.9
III. Other reserves		6,642		7,683	–1,040	–13.5
IV. Consolidated result attributable to Munich Reinsurance Company equity holders		2,933		1,211	1,722	142.1
V. Non-controlling interests		116		100	16	15.9
			30,945	**29,994**	**951**	**3.2**
B. Subordinated liabilities	**(19)**		**5,055**	**5,047**	**7**	**0.1**
C. Gross technical provisions						
I. Unearned premiums	(20)	13,474		10,964	2,510	22.9
II. Provision for future policy benefits	(21)	114,586		112,928	1,658	1.5
III. Provision for outstanding claims	(22)	81,671		72,475	9,196	12.7
IV. Other technical provisions	(23)	21,414		22,478	–1,064	–4.7
			231,145	**218,846**	**12,299**	**5.6**
D. Gross technical provisions for unit-linked life insurance	**(24)**		**8,998**	**7,955**	**1,043**	**13.1**
E. Other provisions	**(25)**		**4,958**	**5,438**	**–480**	**–8.8**
F. Liabilities						
I. Bonds and notes issued	(26)	293		272	21	7.6
II. Deposits retained on ceded business	(27)	1,502		1,261	241	19.1
III. Current tax liabilities		1,845		1,823	23	1.2
IV. Other liabilities	(28)	26,069		24,895	1,174	4.7
			29,709	**28,251**	**1,458**	**5.2**
G. Deferred tax liabilities	**(14)**		**1,300**	**2,293**	**–993**	**–43.3**
H. Liabilities related to non-current assets held for sale	**(16)**		**294**	**123**	**172**	**139.9**
Total equity and liabilities			**312,405**	**297,946**	**14,458**	**4.9**

Consolidated income statement for the 2021 financial year[1]

	Notes			2021	Prev. year		Change
		€m	€m	€m	€m	€m	%
Gross premiums written		**59,567**			**54,890**	**4,677**	**8.5**
1. Earned premiums	**(30)**						
Gross		57,597			53,788	3,809	7.1
Ceded share		–2,396			–2,566	170	6.6
Net			55,202		51,223	3,979	7.8
2. Income from technical interest	**(31)**		**5,783**		**5,270**	**513**	**9.7**
3. Expenses for claims and benefits	**(32)**						
Gross		–46,957			–44,635	–2,322	–5.2
Ceded share		1,574			1,558	16	1.1
Net			–45,383		–43,077	–2,305	–5.4
4. Operating expenses	**(33)**						
Gross		–14,111			–13,379	–732	–5.5
Ceded share		437			564	–128	–22.6
Net			–13,674		–12,815	–860	–6.7
5. Technical result (1–4)				**1,927**	**600**	**1,327**	**221.0**
6. Investment result	**(34)**		**7,156**		**7,398**	**–242**	**–3.3**
Thereof: Income from associates and joint ventures accounted for using the equity method			219		155	63	40.9
7. Insurance-related investment result	**(35)**		**1,119**		**105**	**1,014**	**966.1**
8. Other operating income	**(36)**		**1,203**		**1,168**	**35**	**3.0**
9. Other operating expenses	**(36)**		**–2,106**		**–2,016**	**–90**	**–4.5**
10. Deduction of income from technical interest			**–5,783**		**–5,270**	**–513**	**–9.7**
11. Non-technical result (6–10)				**1,590**	**1,386**	**205**	**14.8**
12. Operating result				**3,517**	**1,986**	**1,531**	**77.1**
13. Other non-operating result	**(37)**			**–91**	**–83**	**–8**	**–9.4**
14. Currency result	**(37)**			**262**	**–200**	**462**	**–**
15. Net finance costs	**(37)**			**–205**	**–223**	**19**	**8.4**
16. Taxes on income	**(38)**			**–552**	**–269**	**–283**	**–105.0**
17. Consolidated result				**2,932**	**1,211**	**1,721**	**142.1**
Thereof: Attributable to Munich Reinsurance Company equity holders				2,933	1,211	1,722	142.1
Attributable to non-controlling interests	(17)			–1	0	0	–238.1
	Notes			€	€	€	%
Earnings per share	**(52)**			**20.93**	**8.63**	**12.30**	**142.5**

1 You can download this information as an Excel file; please refer to the Financial Supplement under www.munichre.com/results-reports

Statement of recognised income and expense for the 2021 financial year

€m	2021	Prev. year
Consolidated result	**2,932**	**1,211**
Currency translation		
Gains (losses) recognised in equity	1,110	–1,392
Recognised in the consolidated income statement	0	0
Unrealised gains and losses on investments		
Gains (losses) recognised in equity	–1,019	2,939
Recognised in the consolidated income statement	–1,143	–1,284
Change resulting from equity method measurement		
Gains (losses) recognised in equity	–60	–21
Recognised in the consolidated income statement	0	–71
Change resulting from cash flow hedges		
Gains (losses) recognised in equity	0	–2
Recognised in the consolidated income statement	0	0
Other changes	14	–1
I. Items where income and expenses recognised directly in equity are reallocated into the consolidated income statement	–1,097	168
Remeasurements of defined benefit plans	500	–204
Other changes	0	0
II. Items where income and expenses recognised directly in equity are not reallocated to the consolidated income statement	500	–204
Income and expense recognised directly in equity (I + II)	**–597**	**–36**
Total recognised income and expense	**2,335**	**1,175**
Thereof:		
Attributable to Munich Reinsurance Company equity holders	2,331	1,172
Attributable to non-controlling interests	4	4

Group statement of changes in equity for the 2021 financial year

€m	Issued capital	Capital reserve
Balance at 31.12.2019	**576**	**6,845**
Allocation to retained earnings	0	0
Consolidated result	0	0
Income and expense recognised directly in equity	0	0
Currency translation	0	0
Unrealised gains and losses on investments	0	0
Change resulting from equity method measurement	0	0
Change resulting from cash flow hedges	0	0
Remeasurements of defined benefit plans	0	0
Other changes	0	0
Total recognised income and expense	0	0
Change in shareholdings in subsidiaries	0	0
Change in consolidated group	0	0
Dividend	0	0
Purchase of own shares	–6	0
Retirement of own shares	17	0
Balance at 31.12.2020	**588**	**6,845**
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	0	0
Retirement of own shares	0	0
Balance at 31.12.2021	**588**	**6,845**

Equity attributable to Munich Reinsurance Company equity holders						Non-controlling interests	Total equity
Retained earnings		Other reserves			Consolidated result		
Retained earnings before deduction of own shares	Treasury shares	Unrealised gains and losses	Currency translation reserve	Remeasurement gains/losses from cash flow hedges			
13,445	**–641**	**6,362**	**1,131**	**17**	**2,724**	**117**	**30,576**
1,351	0	0	0	0	–1,351	0	0
0	0	0	0	0	1,211	0	1,211
–213	0	1,574	–1,393	–8	0	4	–36
0	0	0	–1,393	0	0	0	–1,392
0	0	1,651	0	0	0	4	1,654
–8	0	–77	0	–6	0	0	–91
0	0	0	0	–2	0	0	–2
–205	0	0	0	0	0	1	–204
–1	0	0	0	0	0	0	–1
–213	0	1,574	–1,393	–8	1,211	4	1,175
–3	0	0	0	0	0	–5	–8
0	0	0	0	0	0	–1	–1
0	0	0	0	0	–1,373	–15	–1,388
0	–354	0	0	0	0	0	–359
–1,012	995	0	0	0	0	0	0
13,568	**0**	**7,936**	**–262**	**9**	**1,211**	**100**	**29,994**
–162	0	0	0	0	162	0	0
0	0	0	0	0	2,933	–1	2,932
439	0	–2,152	1,109	3	0	4	–597
0	0	0	1,109	0	0	1	1,110
0	0	–2,161	0	0	0	0	–2,162
–72	0	9	0	2	0	0	–60
0	0	0	0	0	0	0	0
500	0	0	0	0	0	0	500
10	0	0	0	0	0	4	14
439	0	–2,152	1,109	3	2,933	4	2,335
0	0	0	0	0	0	0	0
–23	0	0	0	0	0	17	–6
0	0	0	0	0	–1,373	–5	–1,378
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
13,822	**0**	**5,784**	**848**	**11**	**2,933**	**116**	**30,945**

Consolidated cash flow statement for the 2021 financial year

€m	2021	Prev. year
Consolidated result	**2,932**	**1,211**
Net change in technical provisions	11,409	5,264
Change in deferred acquisition costs	–729	29
Change in deposits retained	–757	209
Change in other receivables and liabilities	–2,252	597
Gains and losses on the disposal of investments and insurance-related investments	–2,716	–3,838
Change in securities at fair value through profit or loss	–760	–95
Change in other balance sheet items	–1,229	815
Other non-cash income and expenses	–672	3,027
I. Cash flows from operating activities	5,226	7,219
Change from losing control of consolidated subsidiaries	–20	2
Change from obtaining control of consolidated subsidiaries	–133	–2
Change from the acquisition, sale and maturity of investments	–3,239	–3,585
Change from the acquisition, sale and maturity of insurance-related investments	–431	–2,504
Other	5	–46
II. Cash flows from investing activities	–3,818	–6,135
Inflows from increases in capital and from non-controlling interests	0	0
Outflows to ownership interests and non-controlling interests	0	–359
Dividend payments	–1,378	–1,388
Change from other financing activities	–303	1,424
III. Cash flows from financing activities	–1,681	–323
Cash flows for the financial year (I + II + III)[1]	**–273**	**761**
Effect of exchange-rate changes on cash and cash equivalents	146	–134
Cash at the beginning of the financial year	5,615	4,994
Cash at the end of the financial year	5,487	5,620
Thereof:		
Cash not attributable to disposal group[2]	5,413	5,615
Cash attributable to disposal group	74	5
Restricted cash	10	8
Additional information		
Income tax paid (net) – included in the cash inflows from operating activities	–1,094	–263
Dividends received	1,001	775
Interest received	4,557	4,915
Interest paid	–392	–385

1 Cash mainly comprises cash at banks.
2 For a definition of the disposal group, see Assets J – Non-current assets held for sale.

Notes to the consolidated financial statements

Application of International Financial Reporting Standards (IFRSs)

Munich Re's consolidated financial statements have been prepared on the basis of the International Financial Reporting Standards (IFRSs), as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e(1) of the German Commercial Code (HGB).

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

In December 2021, the Board of Management and Supervisory Board of Munich Reinsurance Company published the most recent version of its Declaration of Conformity with the German Corporate Governance Code in accordance with Section 161 of the German Stock Corporation Act (AktG), and made this Declaration permanently available to shareholders on the internet at www.munichre.com/cg-en.

Recognition and measurement

Use of judgements and estimates in recognition and measurement

In preparing the consolidated financial statements, preparers must use their judgement in applying accounting policies, and make specific estimates and assumptions that affect the items shown in the consolidated balance sheet, the consolidated income statement and the disclosures on contingent liabilities.

Particularly in primary insurance and reinsurance, the use of estimates is of substantial significance in measuring technical provisions, given that measurement is based on models and the development of future cash flows from insurance contracts cannot be conclusively predicted. Judgements and estimates also play a significant role in the case of other items as well as in determining the basis of consolidation.

Our internal processes are geared to determining amounts as accurately as possible, taking into account all the relevant information. The basis for determining amounts is management's best knowledge regarding the items concerned at the reporting date. Nevertheless, it is in the nature of these items that estimates may have to be adjusted in the course of time to take account of new knowledge.

Discretionary judgements and estimates are of significance for the following items in particular and are described in more detail in the relevant disclosures:

- Consolidated group
- Goodwill and other intangible assets
- Fair values of and impairment losses on financial instruments
- Deferred acquisition costs
- Technical provisions
- Provisions for post-employment benefits
- Deferred tax
- Contingent liabilities

Presentation currency and rounding of figures

Our presentation currency is the euro (€). Amounts are rounded to million euros. Due to rounding, there may be minor deviations in summations and in the calculation of percentages, with figures in brackets referring to the previous year. We only add plus or minus signs where it is not clear from the context whether the amount in question is an expense/outflow or income/inflow.

Figures for previous years

The previous-year figures have been calculated on the same basis as the figures for the 2021 financial year.

Changes in accounting policies and other adjustments

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

In the 2021 financial year, it was necessary to apply the following amended IFRSs for the first time because they had been adopted into European law.

- Amendments to IFRS 4 (rev. 6/2020), Extension of the Temporary Exemption from Applying IFRS 9
- Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (rev. 8/2020) with regard to the effects of the IBOR reform (Phase 2)
- Amendments to IFRS 16 (rev. 3/2021), Leases: COVID-19-Related Rent Concessions beyond 30 June 2021

The amendments will have little effect or no material effect on Munich Re – except for the Amendments to IFRS 4, which are described both below and in the section "New standards and amendments to standards that are not yet effective". The effects of the IBOR reform are portrayed at the end of the section.

Munich Re is exercising the option to defer application of IFRS 9, Financial Instruments, until the introduction of IFRS 17, Insurance Contracts, in order to prevent accounting mismatches from arising from the measurement of underwriting liabilities and investments. As a consequence of deferring the introduction of IFRS 9, we must make additional disclosures until we apply the standard for the first time. This will make it possible to compare our presentation of investments and other financial instruments with those of companies that already apply IFRS 9.

To make use of this exception under IFRS 4, it was necessary to document on the basis of the financial statements as at 31 December 2015 that most of the Group's activity is in insurance. Insurance business is considered "predominant" if at the time of measurement more than 90% of total liabilities were related to insurance business. Besides liabilities that fall within the scope of IFRS 4, these also include liabilities from investment contracts measured at fair value and other liabilities resulting from insurance business. At Munich Re, liabilities related to insurance business accounted for a share of around 96.5% of total liabilities as at 31 December 2015.

In the meantime, there have been no changes to our business activities that would necessitate a reassessment.

The introduction of IFRS 9 changes the requirements related to the classification and measurement of our financial assets; the measurement of these assets under IFRS 9 is geared to their contractual cash flows and to the relevant business model. If the cash flows only comprise the payment of interest and principal on the nominal amount outstanding, measurement is based either on amortised cost or at fair value outside profit or loss, depending on the business model. By contrast, equities, derivatives and complex structured products are measured at fair value through profit or loss. We will similarly measure insurance-related investments at fair value through profit or loss, as we will manage these investments under IFRS 9 based on their fair value within the "Other" business model. The following table provides an overview of how we would measure our financial assets under IFRS 9. The financial assets that meet the cash flow requirement do not include those that are managed on the basis of their fair value within the "Other" business model under IFRS 9. Such assets are instead included in the "Cash flow requirement not met" columns, along with the instruments that do not meet the cash flow requirements.

Disclosures relating to fair value

	Cash flow requirement met			Cash flow requirement not met		
€m	31.12.2021	31.12.2020	Change	31.12.2021	31.12.2020	Change
Loans						
Mortgage loans	8,315	8,188	127	0	0	0
Loans and advance payments on insurance policies	183	201	-17	0	0	0
Other loans	43,526	48,328	-4,801	6,635	8,005	-1,370
Other securities available for sale						
Fixed-interest securities						
Government bonds						
Germany	7,297	7,349	-51	17	11	6
Rest of EU	24,710	28,341	-3,631	26	83	-56
USA	21,418	18,582	2,836	0	0	0
Other	28,624	25,491	3,133	106	38	68
Corporate debt securities	**44,700**	**47,971**	**-3,271**	**1,103**	**1,131**	**-28**
Other	**9,953**	**9,087**	**866**	**253**	**320**	**-67**
Non-fixed-interest securities						
Equities	**0**	**0**	**0**	**15,030**	**10,484**	**4,546**
Investment funds						
Equity funds	0	0	0	945	660	286
Bond funds	0	0	0	2,096	1,677	419
Real estate funds	0	0	0	304	334	-30
Other	**0**	**9**	**-9**	**5,882**	**3,821**	**2,060**
Other securities at fair value through profit or loss						
Held for trading	14	15	-2	1,809	2,434	-624
Securities designated as at fair value through profit and loss	820	116	705	318	381	-63
Other investments, deposits with banks	3,363	3,441	-78	0	0	0
Insurance-related investments						
Investments for unit-linked life insurance contracts	0	0	0	8,582	7,544	1,038
Insurance contracts with non-significant risk transfer	0	0	0	4,088	10,405	-6,317
Other insurance-related investments	0	0	0	3,703	3,489	214
Other receivables, miscellaneous financial receivables	**3,562**	**4,065**	**-502**	**0**	**0**	**0**
Cash at banks, cheques and cash in hand	**5,413**	**5,615**	**-202**	**0**	**0**	**0**

The following table provides for an assessment of the quality of our investments that will not be measured at fair value through profit or loss in line with IFRS 9, as their contractual cash flows only comprise the payment of interest and principal on the nominal amount outstanding. The amounts shown are the carrying amounts of these investments pursuant to IAS 39, Financial Instruments: Recognition and Measurement.

The table does not include cash with banks, cheques, cash in hand or other receivables. However, these mainly comprise business with counterparties of first-class financial strength with a rating of at least BBB.

Ratings for investments that meet the cash flow requirement[1]

€m	31.12.2021	Prev. Year
AAA	78,212	76,722
AA	40,276	43,698
A	24,666	23,968
BBB	25,415	26,226
Lower	9,170	8,156
No rating	8,758	8,222
Total	**186,498**	**186,993**

1 The previous year's figures were adjusted following the revision of rating categories and their allocation in the rating model.

From the Group's perspective, financial assets with a higher credit risk – i.e. rated BB or lower, and measured at amortised cost under IAS 39 – were immaterial.

Financial assets held by subsidiaries already required to use IFRS 9 under national law were also immaterial from the Group's perspective.

For details on IFRS 9 in conjunction with IFRS 17, Insurance Contracts, please refer to the section "New standards and amendments to standards that are not yet effective".

For several associates and joint ventures that already use IFRS 9 and are accounted for in Munich Re's consolidated financial statements using the equity method, we applied the exemption from IAS 28.36 provided in IFRS 4.20O(b) and retained the financial statements of these associates and joint ventures prepared under IFRS 9 when applying the equity method.

Application of the amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (rev. 8/2020) with regard to the effects of the IBOR reform (Phase 2) has been mandatory since 2021. In particular, they include rules on how to recognise the adjustments to contractual cash flows that must be made as a result of this amendment. We expect the impact from the reference rate reform to be minor. The following table provides an overview of our financial assets and financial liabilities which are subject to reference rates that have not yet been changed. In the 2021 financial year, preparations advanced with regard to changing the reference rates. The table includes the most important reference rates only.

Carrying amounts of financial assets and financial liabilities per reference rates

	Non-derivative financial assets – Carrying amount	Non-derivative financial liabilities – Carrying amount	Derivatives (assets) – Carrying amount	Derivatives (liabilities) – Carrying amount
€m	31.12.2021	31.12.2021	31.12.2021	31.12.2021
GBP LIBOR: Pound Sterling London InterBank Offered Rate	516	564	2	4
USD-LIBOR: USD London InterBank Offered Rate	2,238	51	198	30
CAD CDOR: Canadian Dollar Offered Rate	35	0	81	261
EONIA: Euro Overnight Index Average	81	33	1,497	88
GBP Steepener Constant Maturity Swap Rate	234	0	0	0
HKD-HIBOR: Hong Kong Interbank Offered Rate	150	0	254	0
Other interest rates subject to reform	163	10	95	99
Not affected	232,770	22,015	13,005	2,974
Total	**236,187**	**22,674**	**15,132**	**3,457**

Material effects on Munich Re as a result of the coronavirus pandemic are mentioned in the combined management report and the Notes. We have subjected all relevant items in the consolidated balance sheet to an appropriate test, including in particular goodwill and fixed-interest securities. With regard to the effects on the technical provisions, please refer to the section "Segment reporting" and to (21) Provisions for future policy benefits, (22) Provisions for outstanding claims, and (32) Expenses for claims and benefits. Although we had needed to recognise substantial impairment losses – particularly on our equity portfolios – in 2020 on account of the coronavirus pandemic, the effects on our investments in the financial year were immaterial. The analyses conducted likewise identified no material impact on further items of the consolidated balance sheet.

New standards and amendments to standards that are not yet effective

Unless otherwise stated, Munich Re intends to initially apply all new standards or amendments to standards that are not yet effective as at the mandatory effective date for entities whose registered office is in the European Union. The relevant dates for mandatory initial application are shown in the following list of new standards.

IFRS 9 (7/2014), Financial Instruments, supersedes the IAS 39 requirements relating to recognition and measurement of financial instruments. In future, financial assets will be categorised on the basis of contractual cash flow characteristics and the business model according to which the asset is managed. Accordingly, they are subsequently measured at amortised cost, at fair value outside profit or loss, or at fair value through profit or loss.

For financial liabilities, there are no changes in the measurement rules except that if the fair value option is applied, value changes attributable to a change in the entity's own credit risk must in future be recognised at fair value outside profit or loss, provided that this does not create or increase an accounting mismatch.

IFRS 9 sets out an expected loss model for recognising impairment losses, under which – unlike under the current IAS 39 incurred loss model – expected losses are anticipated before they arise and must be recognised as an expense. There will only be one model for recognising impairment losses. It must be used consistently for all financial assets falling under the IFRS 9 impairment rules.

Hedge accounting under IFRS 9 focuses more strongly on the entity's risk management activities than was the case under the current rules of IAS 39.

IFRS 9 requires extensive additional disclosures in the notes that were incorporated in IFRS 7, Financial Instruments: Disclosures.

The requirements are effective for financial years beginning on or after 1 January 2018. As an insurance company, we are exercising the option under IFRS 4 to defer initial application of IFRS 9 in order to implement it at a later date together with IFRS 17. For more information, please see the comments on IFRS 17 below and "Changes in accounting policies and other adjustments".

A Group-wide project ensures that we implement the required processes within the specified period. As part of this project, we successfully conducted a global integration test of our accounting systems in 2021. The successful testing will be followed by preparations for the initial application of IFRS 9 as at 1 January 2023. Upon initial recognition using the expected loss model, we anticipate a minor initial decrease in equity owing to the current capital market situation. In the scope of the first-time application of IFRS 17, Munich Re will exercise the option of applying IFRS 9 (without the expected loss model) to several selected securities holdings during the comparative period of 2022 for the 2023 consolidated financial statements. Doing so will not affect the ongoing preparation of the 2022 consolidated financial statements pursuant to IFRS 4 and IAS 39. In line with IFRS 9, exhaustive comparative figures under IFRS 9 for the 2022 comparative period will not be published in the 2023 consolidated financial statements.

In **IFRS 17 (5/2017), Insurance Contracts,** the IASB has for the first time published a standard that governs the recognition, measurement and disclosure of insurance contracts in a comprehensive and uniform manner. The rules require extensive new disclosures in the notes to the financial statements. The new standard will replace IFRS 4, Insurance Contracts.

IFRS 17 is applicable to all primary insurance contracts, reinsurance contracts and investment contracts with discretionary participation features. The measurement rules are mainly based on a "building block approach", which is made up of a fulfilment value, which comprises the discounted expected future cash flows and an explicit risk adjustment, and a contractual service margin. Under certain conditions, a simplified measurement approach is permitted for short-term contracts. The general measurement model in adjusted form is to be applied to certain primary insurance contracts with participation features and to ceded reinsurance.

Measurement is not made at the individual contract level, but on the basis of portfolios that are subdivided into specified measurement groups based on their profitability and on contracts concluded in annual cohorts. Nearly all cash flows resulting from the rights and obligations under the insurance contracts must be taken into account, which by implication means that certain items currently shown separately in our financial statements will not be included in future.

Another new feature is the clearly stipulated differentiation in the income statement between the technical result – which is precisely defined in IFRS 17 and comprises insurance revenue and insurance service expenses – and insurance finance income or expenses. Insurance revenue is defined in order to allow for comparability with the revenues of other industries. In particular, neither savings premiums ("deposit components") nor certain cedant commissions may now be recognised as revenue components. The new definition will thus require a fundamental rethink of the way we disclose revenue, which currently includes all premium components. If our volume of business remains the same, we thus anticipate appreciable shrinkage in reportable revenues for reinsurance without this affecting the underwriting result.

IFRS 17 contains an option regarding the recognition of changes in value because of amendments to financial inputs. The option allows for recognition either in the income statement or directly in equity. It can be exercised consistently 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, including the Amendments to IFRS 17 issued in June 2020, was adopted into European law in November 2021 and must be applied for the first time as at 1 January 2023. In addition, the amendment to IFRS 4 resulted in a deferral until 2023 of the mandatory initial application of IFRS 9 for those insurance undertakings that do not yet apply this standard, as a result of which the simultaneous initial application of the two standards is still possible. Transitional rules were created to simplify the interplay of IFRS 17 and IFRS 9 upon initial joint application of both standards as at the mandatory effective date, particularly with regard to the requirements for reporting the previous year's figures. In this context, the IASB published a further amendment to IFRS 17 (rev. 12/2021), Insurance Contracts, in December 2021: Initial Application of IFRS 17 and IFRS 9 – Comparative Information.

IFRS 17 will involve fundamental changes to the recognition of insurance and reinsurance contracts and related processes. As the required adjustments involve a considerable amount of work, shortly after the initial publication of the new requirements we set up an implementation project based on preparatory analyses conducted from an early stage in which all the relevant units of reinsurance and primary insurance are involved. Through intense and interdisciplinary cooperation across all units, we continuously ensure that the characteristics of our individual insurance lines of business are considered and implemented in our central IT solution. This includes extensive tests conducted with regard to the accounting of insurance contracts under IFRS 17 and the accounting of financial instruments under IFRS 9. Two global integration tests were conducted in 2021, one of which addressed the combined transition to IFRS 9. The opening balances as at 1 January 2022 are currently being compiled in accordance with IFRS 17; these balances will be submitted to the external auditor in the first half of 2022. Preparing the opening balance sheet and comparative figures for the 2022 financial year entails substantial challenges. Not only must the financial statements be simultaneously prepared as per IFRS 4; the recommendations made subsequent to internal and external quality-control checks must also be put into practice without delay, in close cooperation with the software providers.

IFRS 17 is expected to have the following major impacts:

- In contrast to IFRS 4, IFRS 17 facilitates a more adequate recognition of profit and a more transparent presentation of future profitability with respect to our long-term underwriting business. While our life reinsurance business is recognised largely as per the general measurement model, we use the variable fee approach for a sizeable part of our life and health primary insurance business.
- Measurement under IFRS 17 is more strongly based on market consistency, which generally increases the volatility of results. But IFRS 17 accounting also introduces compensatory elements, such as mechanisms for the development of the contractual service margin (CSM) and for the offsetting of interest-rate fluctuations against equity outside profit or loss. Munich Re plans to apply the offsetting of interest-rate fluctuations against equity outside profit or loss for a majority of its portfolios.
- In the case of short-term property-casualty business, we use – to the extent permissible under IFRS 17 – the simplified measurement model in both reinsurance and primary insurance.
- We intend to consistently maintain the reserving approach currently used under IFRS 4 as far as possible under IFRS 17.

The IASB also published amendments to the following standards, which have been adopted into European law – with the exception of the amendments to IAS 1, IAS 8 and IAS 12.

- Amendments to IAS 1 – Presentation of Financial Statements – Classification of Liabilities as Current or Non-current (rev. 1/2020); Classification of Liabilities as Current or Non-current – Deferral of Effective Date of this amendment (rev. 7/2020)
- Amendments published under the project "Annual Improvements to IFRSs" 2018–2020 cycle (rev. 5/2020): amendments to IFRS 1, First-time Adoption of International Financial Reporting Standards; IFRS 9, Financial Instruments; IFRS 16, Leases; and IAS 41, Agriculture
- Amendments to IFRS 3 (rev. 5/2020), Business Combinations – Reference to the Conceptual Framework
- Amendments to IAS 16 (rev. 5/2020), Property, Plant and Equipment – Proceeds before Intended Use
- Amendments to IAS 37 (rev. 5/2020), Provisions, Contingent Liabilities and Contingent Assets – Onerous Contracts – Cost of Fulfilling a Contract
- Amendments to IAS 1 and IFRS Practice Statement 2 (rev. 2/2021) "Making Materiality Judgements" – Disclosure of Accounting Policies
- Amendments to IAS 8 (rev. 2/2021), Accounting Policies, Changes in Accounting Estimates and Errors – Definition of Accounting Estimates
- Amendments to IAS 12 (rev. 5/2021), Income Taxes – Deferred Tax related to Assets and Liabilities arising from a Single Transaction

With the exception of the amendments to IAS 1 and the Practice Statement 2, IAS 8 and IAS 12, these new requirements are mandatory from 2022. Amendments to IAS 1 and to IFRS Practice Statement 2 "Making Materiality Judgements" as well as amendments to IAS 8 und IAS 12 will apply from 2023. A draft proposing a further amendment to IAS 1 – in addition to the amendments regarding the classification of debt – was published in November 2021. The IASB therefore suggested that both amendments were to simultaneously enter into force, but only after adoption of the recently proposed amendment. This is expected to transpire in 2024 at the soonest.

The amendments listed above will have little or no material effects on Munich Re.

Consolidation

Consolidated group

The consolidated financial statements include Munich Reinsurance Company and all the entities over which Munich Reinsurance Company directly or indirectly exercises control (subsidiaries).

Munich Reinsurance Company directly or indirectly holds all, or a clear majority of, the voting rights in most of the entities included in the consolidated group.

We include a small number of entities in the consolidated group on the basis that contractual rights are taken into consideration that result in determination of control over the relevant business activities. In assessing the need to consolidate shares in investment funds, we take particular account of the degree of variability in the remuneration of the fund manager, of dismissal rights, and of the role of the investors in committees and bodies of the investment fund. As a result, an assessment that we do exercise control sometimes occurs even though the shareholding is below 50%.

In assessing whether control exists for structured entities, we focus our analysis on the decisions still to be made within the corresponding unit and on the agency relationships between the parties. For structured entities used by us to issue catastrophe bonds, we focus above all on our relationship to the trustees and our possibilities to influence their decision-making. Generally, we do not control such structured entities, even if we hold their bonds.

A list of all our shareholdings can be found in the section "List of shareholdings as at 31 December 2021 pursuant to Section 313(2) of the German Commercial Code (HGB)".

Cash flows and net assets from obtaining and losing control of consolidated subsidiaries or other operations are shown in the tables:

Cash flows arising from obtaining control

€m	2021	Prev. year
Total consideration for obtaining control	-229	-2
Non-cash consideration for obtaining control	-84	0
Cash consideration for obtaining control	-146	-2
Cash over which control was obtained	13	0
Total	**-216**	**-2**

Net assets acquired

€m	31.12.2021	Prev. year
Goodwill/gain from bargain purchase	174	2
Other intangible assets	73	1
Investments	54	1
Cash	13	0
Other assets	43	3
Technical provisions (net)	0	0
Other liabilities	-129	-4
Total	**229**	**2**

Cash flows arising from losing control

€m	2021	Prev. year
Total consideration for losing control	127	2
Non-cash consideration for losing control	0	0
Cash consideration for losing control	127	2
Cash over which control was lost	-148	0
Total	**-20**	**2**

Net assets disposed of

€m	31.12.2021	Prev. year
Goodwill	0	0
Other intangible assets	-21	0
Investments	-247	-8
Cash	-148	0
Other assets	-115	-3
Technical provisions (net)	94	5
Other liabilities	252	2
Total	**-186**	**-5**

One of our subsidiaries, Marina Salud S.A., Alicante, was sold and deconsolidated in Q3 2021. The disposal had a positive impact of €3.6m on the consolidated result.

MR RENT-Investment GmbH, Munich, and its four wind park companies were sold and deconsolidated in Q3 2021. The net gains on disposal totalled €48m.

Gains or losses from the disposal of the other subsidiaries sold and deconsolidated in 2021 did not have a material impact on the consolidated result.

Business combinations occurring during the reporting period

On 17 March 2021, via its subsidiary Munich Re New Ventures Inc., Toronto, Munich Re acquired an additional 60% of the voting shares in GHGH Holdings Inc., Vancouver (GroupHEALTH). Munich Re thereby increased its total shareholding to 100% and obtained control over GroupHEALTH and its owned subsidiaries.

The purchase price for the 60% shareholding amounted to €125m and was settled in cash and cash equivalents.

GroupHEALTH operates as a third-party administrator (TPA) and distributor of group health insurance policies, group health insurance broker services, group pension management services and disability management services. As one of the largest third-party group insurance administrators in Canada, GroupHEALTH delivers innovative plan designs and administration solutions to Canadian businesses.

The fair value of Munich Re's equity interest in GroupHEALTH immediately prior to the acquisition was €84m. A profit of €55m from the remeasurement of this share was recognised as investment income.

The transaction resulted in intangible assets of €59m and goodwill of €162m mainly attributable to the expertise of GroupHEALTH employees and expected synergies from servicing reinsurance clients to improve market reach, customer experiences and operations.

The fair values of the assets and liabilities at the time of acquisition are as follows:

Investments of €54m, cash at banks, cheques and cash in hand of €12m, receivables of €10m, deferred tax assets of €2m and other asset items of €32m, other provisions and liabilities of €95m, and deferred tax liabilities of €22m.

The fair value of the receivables acquired as part of the transaction largely corresponds to the carrying amount. No material defaults were expected at the acquisition date.

No significant contingent liabilities exist at the acquisition date.

The revenue contributed by GroupHEALTH and its consolidated result are immaterial in the context of the Munich Re Group.

On 30 April 2021, via its subsidiary 11658573 Canada Inc., Vancouver, Munich Re acquired 100% of the voting shares in CBIG – Canadian Benefits Investment & Insurance Group Inc. (CBIG), Vancouver, and its owned subsidiaries. CBIG's principal business activity is brokering group benefits sales. The intent of acquisition of CBIG is to add and protect distribution, improve product range and to leverage the licensing model to optimise operations of 11658573 Canada Inc. On 7 May 2021, 25% of the voting shares of CBIG were sold to WEXL Ventures Inc., Vancouver.

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.

The transaction to sell T-Solar Global Operating Assets S.L., Madrid, was completed in Q2 2021.

On 29 November 2021, Munich Re participated in the capital increase of Taishan Property & Casualty Insurance Co., Ltd., Shandong, via our subsidiary ERGO Versicherung AG, Düsseldorf. ERGO Versicherung AG obtained joint control of the company by subscribing to 24.9% of its voting shares.

Joint operations

A joint operation exists if its relevant operations can only be determined by unanimous agreement of all parties entitled to joint control, and these parties – due to the legal form of the joint operation, contractual provisions or other circumstances – have rights to assets and obligations for the liabilities of the joint operation, instead of rights to net assets.

We recognise our share of assets, liabilities, income and expenses of joint operations in which we have joint control in the balance sheet in accordance with the relevant IFRSs.

Structured entities

Structured entities are entities that have been conceived in a way that voting or comparable rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant business activities are directed by means of contractual arrangements.

Munich Re has interests in both consolidated and unconsolidated structured entities.

Munich Re classifies **unconsolidated structured entities** as either investment funds or securitisation vehicles on the basis of the type of structured entity.

A distinction is made between **investment funds** in which Munich Re invests on its own behalf within the framework of its investment activities and investment funds in which Munich Re invests as part of its insurance-related investments. Investment funds are mainly financed by issuing redeemable shares or units. Some of the investment funds are managed by MEAG MUNICH ERGO AssetManagement GmbH, others by fund managers outside the Group. In the table below, we also report under "Investment funds" all investments in infrastructure, forestry, private equity and other investments.

Munich Re invests in asset-backed securities that are issued by **securitisation vehicles** which are not set up by Munich Re. Furthermore, Munich Re uses securitisation vehicles to issue catastrophe bonds, and it also invests in third-party catastrophe bonds. Securitisation vehicles are self-financed by issuing securities.

In order to protect its own portfolio, Munich Re uses alternative risk transfer in addition to traditional retrocession. Under this process, underwriting risks are transferred to the capital markets with the assistance of securitisation vehicles.

Munich Re also invests in the area of catastrophe risks, for example in various securities whose repayment and interest is generally linked to the occurrence of natural catastrophes. The securities are issued by securitisation vehicles which as a matter of general policy are not set up by Munich Re.

For investment funds, including investments in infrastructure, forestry, private equity and other investments, as well as insurance-related investments, the carrying amount gives an indication of the **size of the structured entity**. For asset-backed securities and the securitisation of underwriting risks, the emission volume (nominal value) is used as an indicator for measuring the size of the structured entity. The size of the funds refers to both the issued volume of the securitisation vehicles set up by Munich Re and that of those securitisation vehicles in which Munich Re has invested.

With the exception of investment funds for investments in unit-linked life insurance, which are recognised as insurance-related investments, the **maximum exposure to** loss is the carrying amount of the respective items on the assets side, and zero for the items on the liabilities side. Therefore, for the items on the assets side, there is usually no difference between the carrying amount of interests in unconsolidated structured entities and the maximum exposure to loss.

Normally, the maximum exposure to loss in the case of investments for unit-linked life insurance contracts is also the carrying amount of the interests. However, this investment is held for the benefit of policyholders who bear the investment risk.

MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH also **manages fund assets** for private clients and institutional investors, for which it receives a management fee. The management fees are recognised as an expense in the consolidated income statement.

The maximum exposure to loss relates to the loss of future management fees. Fund management activities generated income of €53m (46m) 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 2021, the managed fund assets amounted to €5,269m (4,612m), and Munich Re itself also holds a small interest in these funds.

Unconsolidated structured entities

€m	Investment funds – Munich Re investments 31.12.2021	Investment funds – Insurance-related investments 31.12.2021	Securitisation vehicles – Debt securities 31.12.2021	Securitisation vehicles – Underwriting risks 31.12.2021	Total 31.12.2021
Loans	129	0	0	0	129
Other securities					
Available for sale	5,386	0	3,782	239	9,406
At fair value through profit or loss	0	0	0	0	0
Deposits retained on assumed reinsurance	0	0	0	930	930
Insurance-related investments	0	8,851	0	0	8,851
Ceded share of technical provisions	0	0	0	168	168
Non-current assets held for sale	125	1	0	0	125
Total assets	**5,639**	**8,852**	**3,782**	**1,338**	**19,611**
Technical provisions	0	0	0	2	2
Other liabilities	0	0	0	0	0
Total equity and liabilities	**0**	**0**	**0**	**2**	**2**
Size of structured entity	5,639	8,852	92,823	8,860	116,174

Unconsolidated structured entities

€m	Investment funds – Munich Re investments Prev. year	Investment funds – Insurance-related investments Prev. year	Securitisation vehicles – Debt securities Prev. year	Securitisation vehicles – Underwriting risks Prev. year	Total Prev. year
Loans	155	0	0	0	155
Other securities					0
Available for sale	4,685	0	3,659	306	8,650
At fair value through profit or loss	0	0	0	0	0
Deposits retained on assumed reinsurance	0	0	0	934	934
Insurance-related investments	0	7,620	0	0	7,620
Ceded share of technical provisions	0	0	0	109	109
Non-current assets held for sale	0	7	0	0	7
Total assets	**4,840**	**7,627**	**3,659**	**1,350**	**17,476**
Technical provisions	0	0	0	1	1
Other liabilities	0	0	0	1	1
Total equity and liabilities	**0**	**0**	**0**	**2**	**2**
Size of structured entity	4,840	7,627	75,710	8,114	96,291

Assets

A Intangible assets

Goodwill resulting from the first-time consolidation of subsidiaries is tested for impairment at least annually. We carry out additional 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 as well as software assets and licence assets.

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 the write-downs to the functional areas, they are shown under "Other non-operating result". If necessary in the case of the software assets, impairment losses are recognised or reversed up to a maximum of the amortised acquisition cost or production cost.

B Investments

Land and buildings shown under investments comprise property used by third parties and are carried at cost. Maintenance expenses are recognised as an expense. Structural measures equivalent to 5% or more of the historical cost of a building are generally assessed with regard to whether they have to be capitalised. Buildings are depreciated on a straight-line basis in accordance with the component approach, depending on the weighted useful life for their specific building class. The underlying weighted-average useful life amounts to around 45 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, material investments in associates and joint ventures are measured using the equity method, i.e. with our share of their equity. Our share in the earnings is included in the investment result. As a rule, the equity and annual result from the most recent individual or consolidated financial statements of the associate or joint venture are used. In the case of financial statements of important associates or joint ventures, appropriate adjustments are made to ensure they conform with Munich Re's accounting policies and exceptional transactions are recognised in the same reporting period.

Loans are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are measured at amortised cost in accordance with the effective interest method.

Fixed-interest or non-fixed-interest securities available for sale that are not designated as at fair value through profit or loss or recognised under loans are accounted for at fair value, with resulting changes in value recognised in equity with no effect on profit or loss. Unrealised gains or losses are calculated taking into account interest accrued and, after deduction of deferred taxes and the amounts apportionable to policyholders by the life and health insurers on realisation (provision for deferred premium refunds), are recognised directly in equity under "Other reserves".

Securities at fair value through profit or loss comprise securities held for trading and securities classified as at fair value through profit or loss. Securities held for trading mainly include all derivative financial instruments with positive fair values which we have acquired to manage and hedge risks but which do not meet the requirements of IAS 39 for hedge accounting. The securities that are designated as at fair value through profit or loss include embedded derivatives that must be separated. In addition, loan portfolios are managed based on the fair value of the entire portfolio, which is why it was also designated as at fair value through profit or loss.

Deposits retained on assumed reinsurance are receivables from our cedants for cash deposits that have been retained under the terms of reinsurance agreements; they are accounted for at face value.

Other investments include deposits with banks and investments in renewable energies, physical gold and forestry. With the exception of forestry investments, these are measured at amortised cost. We apply the effective interest method for deposits with banks. Investments in renewable energies are depreciated on a straight-line basis over a useful life of 20–30 years, but mostly over 20 years. If required, impairment losses or impairment losses reversed follow the annual impairment test. If the recoverable amount of physical gold is lower than the carrying amount, a write-down for impairment is carried out. If higher, the impairment is reversed, with impact on the income statement. The resultant carrying amount may not exceed the acquisition cost.

Forestry investments fall into the category of biological assets and include standing wood. These investments are measured at fair value less costs of disposal, with impact on profit or loss.

Repurchase agreements and securities lending

Under repurchase agreements we, as the lender, acquire securities against payment of an amount with the obligation to sell them back to the borrower at a later date. As the risks and rewards from the securities remain with the borrower, the amounts paid are not posted as such in our accounts but are shown as a receivable from the borrower under “Other investments, deposits with banks”. Interest income from these transactions is recognised in the investment result. Similarly, securities sold by us as the borrower are not derecognised, and the amount received from the lender is shown as a liability in our accounts.

Securities that we lend by way of securities lending continue to be recognised in our balance sheet, as the main risks and rewards remain with Munich Re; securities that we have borrowed are not recognised in the balance sheet. Fees from securities lending are recognised in the investment result.

Recognition of financial instruments

Financial assets are accounted for at the trade date.

Offsetting of financial instruments

We offset financial assets and financial liabilities if the requirements are met in accordance with IAS 32, Financial Instruments: Presentation, and if doing so is legally enforceable.

Determining fair values

IFRS 13, Fair Value Measurement, defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. All investments and other assets and liabilities that are recognised at fair value, and such investments and other items for which a fair value is disclosed solely in the Notes, are allocated to one of the fair value hierarchy levels of IFRS 13, which provides for three levels.

The allocation of an instrument to a level indicates the extent to which observable market inputs helped to measure the instrument. The fair value hierarchy categorises three levels of inputs: quoted prices in active markets (Level 1), inputs based on observable market prices (Level 2) and inputs that are not directly observable in active markets (Level 3). If market prices are available, these constitute the most objective yardstick for measurement at fair value and are to be used. If measurement is carried out using a model, any available inputs observable in the market are used first. If necessary, these inputs are supplemented with unobservable input factors and internal estimates.

Information on the valuation models and processes can be found in the Notes to the consolidated balance sheet – Assets (4) Hierarchy for the fair value measurement of assets. We verify the allocations to the levels as per IFRS 13 at every reporting date.

In the case of Level 1, valuation is based on quoted prices in active markets for identical financial assets which Munich Re can refer to at the valuation date. The financial instruments we have allocated to this level mainly comprise equities, equity funds, exchange-traded derivatives, and exchange-traded subordinated liabilities.

Assets allocated to Level 2 are valued using models based on observable market data. If the financial instrument concerned has a fixed contract period, the inputs used for valuation must be observable for the whole of this period. In addition, Level 2 includes financial assets for which valuation and the market data required for valuation are provided by price quoters, but for which it is not possible to completely determine to which extent the data used is observable in the market. The financial instruments we have allocated to this level mainly comprise bearer bonds and bond funds, borrowers’ note loans, covered bonds, subordinated securities, specified credit structures and derivatives not traded on the stock market.

For assets allocated to Level 3, we use valuation techniques that are also based on unobservable inputs unless their impact is insignificant. The inputs used reflect Munich Re’s assumptions regarding the factors which market players would consider in their pricing. To this end, we use the best available market information, supplemented with internal company data. The assets allocated to this level of the fair value hierarchy largely comprise land and buildings and real estate funds. Funds that mainly invest in theoretically valued instruments, and investments in infrastructure and in private equity are also allocated to Level 3, along with investments in subsidiaries, associates and joint ventures measured at fair value, as well as insurance derivatives and derivative components of variable annuities.

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

To the extent that a change in individual inputs significantly affects the fair value shown, we will disclose the change and the resulting impact. This is particularly applicable to instruments measured under Level 3, as their measurement is predominantly dependent on unobservable inputs.

Investment result

The investment result comprises regular income, income from 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. These include insurance derivatives, derivative components of variable annuities, derivatives for hedging variable annuity contracts and, on a limited scale, loans. In the case of loans, contractual wording largely waives the right to reimbursement triggered by the occurrence of insurance events. Similar agreements also exist for quasi-equity instruments. Insurance-linked derivatives include retrocessions in the form of derivatives, the derivative components of natural catastrophe bonds and from securitisations of mortality and morbidity risks, individually structured insurance-linked derivatives, and derivative components which are separated from their host insurance contract in accounting. Other insurance-related investments are predominantly measured at fair value through profit or loss. In addition, we designate contracts containing embedded derivatives that would generally have to be separated as measured at fair value through profit or loss in order to achieve an appropriate accounting statement. Insurance risks are defined as risks which – in a modified form – can also be covered by an insurance contract within the meaning of IFRS 4.

Result from insurance-related investments

The breakdown of the insurance-related investment result matches that of the investment result.

D Ceded share of technical provisions

The share of technical provisions for business ceded by us is determined from the respective technical provisions in accordance with the terms of the reinsurance agreements (see “Equity and liabilities – C Gross technical provisions”). Appropriate allowance is made for the credit risk.

E Receivables

Current tax receivables are accounted for in accordance with local tax regulations and other receivables at amortised cost. The impairment test of our receivables is performed in a two-stage process, firstly at the level of individual items, and then on the basis of groups of similar receivables. The impairment is recognised as an expense. If, in a subsequent period, the reasons for the impairment cease to apply, the impairment is reversed, with impact on the income statement. The resultant carrying amount may not exceed the amortised cost.

Current tax receivables comprise current taxes on income of the individual companies, based on their respective national taxation. Other tax receivables are shown under “Other receivables”.

F Cash at bank, cheques and cash in hand

Cash and cash equivalents as well as other liquid assets are accounted for at face value.

G Deferred acquisition costs

Deferred acquisition costs comprise commissions and other variable costs directly connected with acquisition or renewal of insurance contracts. In life business and long-term health primary insurance, deferred acquisition costs are recognised and amortised over the period of cover in accordance with the anticipated recognition of income. In determining the amount of amortisation, we take into account an actuarial interest rate and changes resulting from the disposal or withdrawal of contracts from the portfolio. In property-casualty business, short-term health primary insurance and health reinsurance, the deferred acquisition costs are customarily amortised on a straight-line basis over the average term of the policies, from one to five years.

H Deferred tax assets

Deferred tax assets must be recognised in cases where asset items have to be valued lower, or liability items higher, in the consolidated balance sheet than in the tax accounts of the Group company concerned and these differences will be eliminated at a later date with a corresponding effect on taxable income (temporary differences). Also included are tax assets deriving from tax loss carry-forwards. Deferred tax assets are recognised if there are sufficient taxable temporary differences which are expected to reverse in the same period as the deductible temporary differences. For any additional deductible temporary differences, deferred tax assets are recognised only to the extent that it is probable that future profits are available in the same period in which the deductible temporary differences are expected to reverse. 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 underlying weighted-average useful life is about 50 years. Where required, impairment losses either are recognised or are reversed up to a maximum of the amortised acquisition cost for the Group’s owner-occupied property, plant and equipment. These impairment losses and impairment losses reversed are distributed between the functional areas.

Right-of-use assets under leases are comprised of lease liabilities, lease payments made at the time or before the asset is made available for use, initial direct costs, and restoration obligations. Right-of-use assets are depreciated on a straight-line basis over the term of the lease.

J Non-current assets held for sale

Non-current assets held for sale are assets that can be sold in their current condition and whose sale is highly probable. The item may comprise individual assets or groups of assets. Non-current assets held for sale are recognised at the lower of the carrying amount and fair value less costs of disposal. They are no longer depreciated. Measurement of financial instruments remains unchanged; the only difference is how they are disclosed.

Equity and liabilities

A Equity

The line item **issued capital and capital reserve** contains the amounts that the equity holders of Munich Reinsurance Company have paid in on shares.

Under **retained earnings,** we show the profits which consolidated companies have earned and retained since becoming part of Munich Re. In addition, the adjustment amount resulting from changes in accounting policies for earlier periods not included in the consolidated financial statements is recognised in the opening balance of the retained earnings for the earliest prior period reported. Retained earnings also include the effects from remeasurement of defined benefit plans.

Own shares are deducted from equity. The purchase, sale or retirement of these shares are recognised in equity items, without impact on profit or loss.

Other reserves primarily contain unrealised gains and losses resulting from the recognition at fair value of other securities available for sale and from interests in unconsolidated affiliated companies, and in associates and joint ventures not accounted for using the equity method. In addition, they include unrealised gains and losses from the measurement of associates and joint ventures using the equity method. Differences resulting from the currency translation of foreign subsidiaries' figures, and remeasurement gains/losses from the hedging of cash flows are also shown under "Other reserves".

B Subordinated liabilities

Subordinated liabilities are liabilities which, in the event of liquidation or insolvency, are only satisfied after the claims of other creditors. They are measured at amortised cost in accordance with the effective interest method.

C Gross technical provisions

Technical provisions are shown as gross figures in the balance sheet, i.e. before deduction of the ceded share (see "Assets – D Ceded share of technical provisions"). The ceded share is calculated and accounted for on the basis of the individual reinsurance agreements. Acquisition costs for insurance contracts are recognised and amortised over the terms of the contracts (see "Assets – G Deferred acquisition costs"). The measurement of technical provisions is based on US GAAP FAS 60 (life primary insurance without performance-related participation in surplus, health primary insurance and the bulk of reinsurance treaties), FAS 97 (life primary insurance based on the universal life model, unit-linked life insurance and life reinsurance for assumed business based on FAS 97) and FAS 120 (life primary insurance with performance-related participation in surplus).[1] Credit insurance contracts are accounted for in accordance with the rules of IFRS 4.

Unearned premiums are accrued premiums already written for future risk periods. For primary insurance, these premiums are calculated separately for each insurance policy pro rata temporis; for reinsurance, nominal percentages are used in some cases where the data for a calculation pro rata temporis is not available. The posting of unearned premiums is restricted to short-term underwriting business; i.e. property-casualty business and parts of accident and health business. In the case of long-term business, a provision for future policy benefits is established.

The **provision for future policy benefits** in long-term underwriting business is posted for the actuarially calculated value of obligations arising from policyholders' guaranteed entitlements. As well as life insurance, this concerns portions of health and personal accident insurance, insofar as the business is conducted like life insurance. Measurement is usually based on the prospective method, by determining the difference between the present values of future benefits and future premiums. The actuarial

1 At initial adoption on 1 January 2005.

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 Aktuarvereinigung e.V.) are used. We also largely use the tables of the national actuarial associations for the rest of primary insurance business. The actuarial interest rate employed for discounting in life primary insurance is limited by the respective maximum actuarial interest rate prescribed by the supervisory authorities. In health primary insurance, discount rates are chosen that reflect the best estimate of expected investment income, less a safety margin.

The **provision for outstanding claims** is for payment obligations arising from insurance contracts in primary insurance and reinsurance where the size of the claim or the timing of the payment is still uncertain. Part of the provision is for known claims for which individually calculated provisions are posted. Another part is for expenses for claims whose occurrence is not yet known. There are also provisions for claims that are known, but whose extent has turned out to be greater than originally foreseen. All these provisions include expenses for internal and external loss adjustments. The provision for outstanding claims is based on estimates: the actual payments may be higher or lower. The amounts posted are the realistically estimated future amounts to be paid; they are calculated on the basis of past experience and assumptions about future developments (e.g. social, economic or technological factors). The claims payments also include estimated adjustments to accounts payable recognised in the previous year with a corresponding impact on the provision; these adjustments are the result of an altered assessment of payment behaviour. Future payment obligations are generally not discounted; exceptions are some provisions for occupational disability pensions and annuities in workers' compensation and other lines of property-casualty business. For determining the provision for outstanding claims, Munich Re uses a range of actuarial projection methods. Where ranges have been calculated, a realistic estimated value for the ultimate loss is determined within these. In applying the statistical methods, we regard large exposures separately.

Other technical provisions mainly include the provision for premium refunds in primary insurance and the provision for profit commission in reinsurance. The former is posted in life and health primary insurance for obligations involving policyholder bonuses and rebates that have not yet been irrevocably allocated to individual contracts at the end of the reporting period. These provisions are posted on the basis of national regulations almost entirely for primary insurance business in Germany; a retrospective approach is usually taken based on supervisory or individual contract regulations.

Besides this, there are provisions for deferred premium refunds, which are posted for the amounts apportionable to policyholders from the measurement differences between IFRS and local GAAP on the basis of the expected future participation quotas. For unrealised gains and losses on investments available for sale, which are recognised directly in equity (see "Assets – B Investments – Fixed-interest or non-fixed-interest securities available for sale"), the resultant provision for deferred premium refunds is also posted without impact on profit or loss; otherwise, changes in this provision are recognised in the income statement.

Liability adequacy test

All technical provisions are regularly subjected to a **liability adequacy test in accordance with IFRS 4**. If current experience shows that the provisions posted on the basis of the original assumptions – less the related deferred acquisition costs and the present value of the related premiums – are inadequate to cover the expected future benefits, we adjust the relevant technical provisions with recognition in profit or loss and disclose this under impairment losses in the Notes to the consolidated balance sheet (see (2) Other intangible assets, (13) Deferred acquisition costs, and (21) Provision for future policy benefits). The appropriateness of unearned premiums and of the provision for outstanding claims is assessed in relation to the realistically estimated future amount to be paid. The appropriateness of the provision for future policy benefits is assessed on the basis of realistic estimates of the actuarial assumptions, the proportional investment result and, for contracts with participation in surplus, future profit sharing.

D Gross technical provisions for unit-linked life insurance

This item encompasses the provision for future policy benefits in life primary insurance where policyholders bear the investment risk themselves (unit-linked life insurance). The value of the provision for future policy benefits essentially corresponds to the fair value of the relevant investments shown under "Assets – C Insurance-related investments – Investments for policyholders under unit-linked life insurance contracts". Changes in this provision are fully recognised in the technical result. Insofar as these changes derive from unrealised gains and losses from alterations in the fair values of the related investments, they are matched by opposite changes of the same amount in the insurance-related investment result.

E Other provisions

This item includes **provisions for post-employment benefits and similar obligations**. Under defined contribution plans, the companies pay fixed contributions to an insurer or a pension fund. This fully covers the companies' obligations. Under defined benefit plans, the staff member is promised a particular level of retirement benefit either by the companies or by a pension fund. The companies' contributions needed to finance this are not fixed in advance. If pension obligations are covered by assets held by a legally separate entity (e.g. a fund or a contractual trust agreement in the form of a two-way trust) – assets that may only be used to cover the pension commitments given and are not accessible to creditors – the pension obligations are shown less the amount of these plan assets. If the fair value of the assets exceeds the related outsourced pension commitments, this reimbursement right is recognised under "Other receivables".

Pension obligations are recognised in accordance with IAS 19, Employee Benefits, using the projected unit credit method. The calculation includes not only the pension entitlements and current pensions known at the end of the reporting period, but also their expected future development. The assumptions for the future development are determined on the basis of the circumstances in the individual countries.

The discount rate applied to the pension obligations is based on the yields for long-term, high-quality corporate bonds.

The item also includes **miscellaneous provisions**, which we establish in the amount of the probable requirement. Such amounts are not discounted if the interest-rate effect is insignificant.

F Liabilities

This item comprises bonds and notes issued, deposits retained on ceded business, current tax liabilities, and other liabilities. Financial liabilities are generally recognised at amortised cost. Derivative financial instruments are recognised at fair value. Details of how the fair value is determined are provided under "Assets – B Investments – Determining fair values".

We offset financial assets and financial liabilities if the necessary requirements are met in accordance with IAS 32 and doing so is legally enforceable.

Current tax liabilities comprise current taxes on income of the individual companies, based on their respective national taxation. Other tax liabilities are shown under "Other liabilities".

Lease liabilities are included in "Other liabilities". The lease liability represents the present value of the payment obligations entered into. As a rule, lease payments are discounted at the incremental borrowing rate. Lease payments are discounted at the interest rate on which the lease is based, provided that this rate can be determined.

G Deferred tax liabilities

Deferred tax liabilities must be recognised if asset items have to be valued higher, or liabilities items lower, in the consolidated balance sheet than in the tax accounts of the reporting company, and these differences will be eliminated at a later date with a corresponding impact on taxable income (temporary differences); see "Assets – H Deferred tax assets".

H Liabilities related to non-current assets held for sale

Liabilities to be transferred together with disposal groups are recognised in this item (see "Assets – J Non-current assets held for sale").

Foreign currency translation

Munich Re's presentation currency is the euro (€). Our subsidiaries largely recognise differences resulting from the translation into their respective national currencies in profit or loss. The thus converted net assets of foreign subsidiaries whose national currency is not the euro are then translated using the year-end exchange rates, and results using quarterly average exchange rates. Any exchange differences arising in the process are recognised in equity.

The following table shows the exchange rates of the most important currencies for our business:

Currency translation rates

	Balance sheet		Income statement				Income statement			
One foreign currency unit is equivalent to €	31.12.2021	Prev. year	Q4 2021	Q3 2021	Q2 2021	Q1 2021	Q4 2020	Q3 2020	Q2 2020	Q1 2020
Australian dollar	0.6393	0.6307	0.6374	0.6232	0.6390	0.6412	0.6133	0.6118	0.5965	0.5959
Canadian dollar	0.6961	0.6415	0.6940	0.6733	0.6756	0.6553	0.6436	0.6420	0.6554	0.6750
Pound sterling	1.1910	1.1172	1.1791	1.1689	1.1602	1.1442	1.1076	1.1050	1.1272	1.1601
Polish zloty	0.2182	0.2194	0.2166	0.2190	0.2208	0.2200	0.2220	0.2251	0.2219	0.2313
Swiss franc	0.9651	0.9246	0.9489	0.9239	0.9109	0.9165	0.9279	0.9300	0.9424	0.9371
US dollar	0.8794	0.8173	0.8747	0.8483	0.8297	0.8299	0.8383	0.8553	0.9079	0.9073
Yen	0.0076	0.0079	0.0077	0.0077	0.0076	0.0078	0.0080	0.0081	0.0084	0.0083
Yuan renminbi	0.1380	0.1250	0.1368	0.1311	0.1285	0.1281	0.1266	0.1236	0.1281	0.1300

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 primary insurance business, excluding Digital Ventures)
- ERGO International (ERGO’s primary insurance business outside Germany)

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]

€m	Reinsurance Life and health 31.12.2021	Reinsurance Life and health Prev. year	Reinsurance Property-casualty 31.12.2021	Reinsurance Property-casualty Prev. year
A. Intangible assets	**521**	**280**	**2,204**	**2,099**
B. Investments				
I. Land and buildings, including buildings on third-party land	274	183	3,160	2,937
II. Investments in affiliated companies, associates and joint ventures	45	48	1,951	1,848
Thereof: Associates and joint ventures accounted for using the equity method	0	25	1,714	1,749
III. Loans	659	518	643	595
IV. Other securities				
1. Available for sale	23,269	22,806	55,785	50,496
2. At fair value through profit or loss	181	84	980	990
	23,449	22,890	56,765	51,486
V. Deposits retained on assumed reinsurance	5,006	4,835	3,998	3,111
VI. Other investments	703	416	2,963	2,381
	30,137	**28,890**	**69,480**	**62,358**
C. Insurance-related investments	**2,748**	**2,921**	**861**	**461**
D. Ceded share of technical provisions	**2,607**	**2,074**	**2,651**	**2,557**
E. Non-current assets held for sale	**0**	**1**	**0**	**17**
F. Other segment assets	**20,560**	**17,865**	**16,808**	**14,368**
Total segment assets	**56,572**	**52,031**	**92,004**	**81,860**

Segment equity and liabilities[1]

€m	Reinsurance Life and health 31.12.2021	Reinsurance Life and health Prev. year	Reinsurance Property-casualty 31.12.2021	Reinsurance Property-casualty Prev. year
A. Subordinated liabilities	**1,168**	**1,202**	**3,874**	**3,832**
B. Gross technical provisions				
I. Unearned premiums	295	341	10,392	8,042
II. Provision for future policy benefits	13,420	12,464	0	0
III. Provision for outstanding claims	11,054	9,962	59,070	51,392
IV. Other technical provisions	169	391	318	230
	24,939	**23,158**	**69,780**	**59,664**
C. Gross technical provisions for unit-linked life insurance contracts	**0**	**0**	**0**	**0**
D. Other provisions	**186**	**190**	**678**	**690**
E. Liabilities related to non-current assets held for sale	**0**	**0**	**0**	**0**
F. Other segment liabilities	**15,656**	**14,381**	**8,975**	**9,020**
Total segment liabilities	**41,949**	**38,932**	**83,306**	**73,206**

1 You can download this information as an Excel file; please refer to the Financial Supplement under www.munichre.com/results-reports

	ERGO						Total	
	Life and Health Germany		Property-casualty Germany		International			
	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year
	161	173	1,320	1,279	172	174	4,379	4,005
	3,247	3,088	209	205	138	126	7,029	6,539
	396	408	110	94	1,133	974	3,635	3,372
	338	331	47	43	1,116	956	3,215	3,104
	47,166	49,002	1,383	1,365	538	464	50,389	51,944
	61,315	59,233	5,742	5,337	16,356	17,517	162,468	155,389
	1,553	1,422	52	51	184	379	2,950	2,927
	62,868	60,656	5,795	5,388	16,540	17,896	165,418	158,316
	15	21	8	12	0	0	9,027	7,980
	960	1,734	68	123	109	145	4,803	4,800
	114,653	**114,909**	**7,573**	**7,188**	**18,458**	**19,605**	**240,300**	**232,950**
	6,045	**5,259**	**0**	**0**	**2,629**	**2,391**	**12,283**	**11,033**
	15	**12**	**262**	**102**	**564**	**575**	**6,099**	**5,321**
	78	**16**	**1**	**23**	**473**	**159**	**552**	**215**
	7,224	**7,957**	**1,844**	**1,706**	**2,358**	**2,528**	**48,792**	**44,423**
	128,176	**128,325**	**11,000**	**10,298**	**24,653**	**25,432**	**312,405**	**297,946**

	ERGO						Total	
	Life and Health Germany		Property-casualty Germany		International			
	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year
	0	**0**	**0**	**0**	**13**	**13**	**5,055**	**5,047**
	266	241	563	522	1,957	1,817	13,474	10,964
	91,203	90,474	362	387	9,601	9,603	114,586	112,928
	2,947	3,018	5,636	5,083	2,963	3,021	81,671	72,475
	20,248	20,889	118	125	562	843	21,414	22,478
	114,664	**114,622**	**6,678**	**6,117**	**15,083**	**15,285**	**231,145**	**218,846**
	6,375	**5,554**	**0**	**0**	**2,623**	**2,401**	**8,998**	**7,955**
	1,922	**2,135**	**1,014**	**1,146**	**1,158**	**1,277**	**4,958**	**5,438**
	8	**0**	**0**	**0**	**286**	**123**	**294**	**123**
	4,418	**5,090**	**560**	**540**	**1,401**	**1,513**	**31,009**	**30,544**
	127,388	**127,400**	**8,252**	**7,803**	**20,564**	**20,611**	**281,459**	**267,952**
					Equity		**30,945**	**29,994**
					Total equity and liabilities		**312,405**	**297,946**

Segment income statement[1]

	Reinsurance			
	Life and health		Property-casualty	
€m	2021	Prev. year	2021	Prev. year
Gross premiums written	**12,561**	**12,707**	**28,793**	**24,615**
1. Net earned premiums	11,464	11,461	26,071	22,566
2. Income from technical interest	639	666	889	1,107
3. Net expenses for claims and benefits	-10,239	-10,128	-17,933	-16,866
4. Net operating expenses	-1,873	-2,077	-8,054	-6,978
5. Technical result (1–4)	**-9**	**-78**	**972**	**-171**
6. Investment result	860	846	2,562	2,347
7. Insurance-related investment result	75	69	94	-45
8. Other operating result	58	53	-388	-263
9. Deduction of income from technical interest	-639	-666	-889	-1,107
10. Non-technical result (6–9)	**353**	**303**	**1,380**	**931**
11. Operating result	344	225	2,352	759
12. Other non-operating result	-10	1	-7	-11
13. Currency result	43	-46	119	6
14. Net finance costs	-36	-40	-135	-128
15. Taxes on income	-16	-16	-326	-55
16. Consolidated result	325	123	2,003	571

1 You can download this information as an Excel file; please refer to the Financial Supplement under www.munichre.com/results-reports

In reinsurance, we incurred COVID-19-related losses particularly owing to the cancellation or postponement of major events and higher mortality. Losses were spread across the different segments as follows: life and health reinsurance €785m (370m) and property-casualty reinsurance €212m (previous year: slightly over €3bn).

The impact of the pandemic on ERGO was immaterial in all segments, as negative effects in India were almost fully compensated for by lower losses in travel and motor insurance.

The burden on ERGO's result arising from COVID-19 totalled €5m (64m) after tax.

Other segment disclosures

	Reinsurance			
	Life and health		Property-casualty	
€m	2021	Prev. year	2021	Prev. year
Interest income	850	868	848	970
Interest expenses	-42	-22	-69	-43
Depreciation and amortisation	-58	-51	-95	-110
Other operating income	376	295	352	387
Other operating expenses	-319	-242	-740	-650
Income from associates and joint ventures accounted for using the equity method	55	1	114	71

	ERGO						Total	
	Life and Health Germany		Property-casualty Germany		International			
	2021	Prev. year	2021	Prev. year	2021	Prev. year	2021	Prev. year
	9,203	**9,030**	**3,919**	**3,677**	**5,092**	**4,861**	**59,567**	**54,890**
	9,173	9,066	3,764	3,570	4,730	4,560	55,202	51,223
	3,732	3,180	51	68	472	249	5,783	5,270
	–11,283	–10,511	–2,390	–2,254	–3,537	–3,318	–45,383	–43,077
	–1,273	–1,382	–1,122	–1,089	–1,352	–1,289	–13,674	–12,815
	349	**353**	**302**	**294**	**313**	**202**	**1,927**	**600**
	3,201	3,605	209	175	324	425	7,156	7,398
	661	24	0	0	290	57	1,119	105
	–276	–354	–107	–147	–189	–137	–902	–848
	–3,732	–3,180	–51	–68	–472	–249	–5,783	–5,270
	–147	**95**	**51**	**–39**	**–47**	**96**	**1,590**	**1,386**
	202	448	354	255	266	298	3,517	1,986
	–46	–48	–21	–28	–6	4	–91	–83
	77	–161	14	1	10	2	262	–200
	–9	–22	–4	–6	–20	–27	–205	–223
	–59	–86	–109	–64	–43	–48	–552	–269
	164	130	234	157	207	230	2,932	1,211

	ERGO						Total	
	Life and Health Germany		Property-casualty Germany		International			
	2021	Prev. year	2021	Prev. year	2021	Prev. year	2021	Prev. year
	2,515	2,702	81	89	289	315	4,584	4,944
	–31	–44	–6	–11	–10	–16	–158	–136
	–50	–53	–73	–47	–51	–65	–327	–326
	233	239	146	141	97	106	1,203	1,168
	–509	–594	–253	–288	–285	–242	–2,106	–2,016
	20	26	1	0	30	58	219	155

Notes on determining the combined ratio[1]

		Reinsurance		ERGO		
		Property-casualty		Property-casualty Germany		International[2]	
€m		2021	Prev. year	2021	Prev. year	2021	Prev. year
Net earned premiums		26,071	22,566	3,764	3,570	3,467	3,289
Net expenses for claims and benefits		-17,933	-16,866	-2,390	-2,254	-2,181	-2,105
Net operating expenses		-8,054	-6,978	-1,122	-1,089	-1,056	-988
Loss-ratio calculation adjustments		13	7	33	46	18	42
Fire brigade tax and other expenses		23	21	18	18	24	34
Expenses for premium refunds		0	0	30	34	-1	2
Other underwriting income		-9	-11	-3	-26	-11	-13
Change in other technical provisions and other underwriting expenses		-1	-3	-12	21	6	19
Adjusted net expenses for claims and benefits		**-17,920**	**-16,860**	**-2,357**	**-2,209**	**-2,163**	**-2,063**
Loss ratio	%	68.7	74.7	62.6	61.9	62.4	62.7
Combined ratio	%	99.6	105.6	92.4	92.4	92.9	92.7

1 Information on the combined ratio is provided in the combined management report in the section entitled “Tools of corporate management and strategic financial objectives”.
2 Property-casualty business and short-term health business (excluding health insurance conducted like life insurance).

Notes on determining the return on equity (RoE) for the year 2021

		Reinsurance		ERGO		Total	
€m		31.12.2021	31.12.2020	31.12.2021	31.12.2020	31.12.2021	31.12.2020
Segment assets		148,576	133,892	163,828	164,055	312,405	297,946
Segment liabilities		125,255	112,138	156,204	155,815	281,459	267,952
Adjustments used in the calculation of equity							
Unrealised gains and losses, currency translation reserve, remeasurement gains/losses from cash flow hedges		4,759	4,994	1,883	2,689	6,642	7,683
Adjustment item for material asset transfers between reinsurance and ERGO		300	410	-300	-410	0	0
Adjusted equity		**18,262**	**16,350**	**6,041**	**5,961**	**24,303**	**22,311**
		2021		2021		2021	
Average adjusted equity		17,306		6,001		23,307	
Consolidated result		2,328		605		2,932	
Return on equity (RoE)	%	**13.5**		**10.1**		**12.6**	

Notes on determining the return on equity (RoE) for the year 2020

		Reinsurance		ERGO		Total	
€m		31.12.2020	31.12.2019	31.12.2020	31.12.2019	31.12.2020	31.12.2019
Segment assets		133,892	128,171	164,055	159,383	297,946	287,553
Segment liabilities		112,138	104,862	155,815	152,116	267,952	256,978
Adjustments used in the calculation of equity							
Unrealised gains and losses, currency translation reserve, remeasurement gains/losses from cash flow hedges		4,994	5,301	2,689	2,209	7,683	7,510
Adjustment item for material asset transfers between reinsurance and ERGO		410	732	-410	-732	0	0
Adjusted equity		**16,350**	**17,275**	**5,961**	**5,791**	**22,311**	**23,066**
		2020		2020		2020	
Average adjusted equity		16,813		5,876		22,688	
Consolidated result		694		517		1,211	
Return on equity (RoE)	%	**4.1**		**8.8**		**5.3**	

Non-current assets by country[1]

€m	31.12.2021	Prev. year
Germany	7,367	7,265
USA	4,377	3,901
UK	545	546
France	420	427
Sweden	350	359
Canada	307	53
Spain	280	276
Poland	237	241
Austria	161	156
Malta	155	161
Italy	153	161
Netherlands	110	90
Belgium	105	131
Switzerland	93	92
Denmark	90	77
Finland	63	63
Lithuania	52	52
Others	222	179
Total	**15,087**	**14,230**

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	2021	Prev. year
Life and health reinsurance	359	35
Property-casualty reinsurance	288	839
ERGO Life and Health Germany	348	67
ERGO Property-casualty Germany	148	166
ERGO International	82	89
Total	**1,226**	**1,196**

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	2021	Prev. year
Europe		
Germany	14,112	13,662
UK	6,881	6,540
Poland	1,772	1,557
Spain	1,668	1,626
Belgium	972	931
Others	5,015	4,763
	30,420	29,080
North America		
USA	15,834	13,104
Canada	2,419	2,336
	18,253	15,440
Asia and Australasia		
Australia	2,080	1,849
China	1,664	1,682
Japan	1,659	1,709
India	806	589
Others	1,230	1,123
	7,439	6,952
Africa, Middle East		
South Africa	775	779
United Arab Emirates	338	399
Others	782	763
	1,896	1,940
Latin America	1,560	1,477
Total	**59,567**	**54,890**

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	2021	Prev. year
Gross carrying amount at 31 Dec. previous year	4,341	4,498
Accumulated amortisation and impairment losses at 31 Dec. previous year	–1,559	–1,557
Carrying amount at 31 Dec. previous year	2,782	2,941
Currency translation differences	140	–159
Additions	174	2
Disposals	0	0
Reclassifications	0	0
Amortisation and impairment losses	–4	–2
Carrying amount at 31 Dec. financial year	**3,092**	**2,782**
Accumulated amortisation and impairment losses at 31 Dec. financial year	–1,563	–1,559
Gross carrying amount at 31 Dec. financial year	4,655	4,341

Impairment tests for cash-generating units to which a significant portion of the goodwill was allocated are based on the assumptions shown below.

Cash-generating units	Global Clients and North America Division property-casualty reinsurance	ERGO Property-casualty Germany segment
Allocated goodwill at 31 Dec. 2021 in €m	1,872	928
Basis for calculating the recoverable amount	Value in use	Value in use
Key assumptions regarding the planning calculation (at the time of planning)	In the detailed planning phase (four years) we expected increasing premium income and an improvement in the combined ratio if major losses remained stable. Our general assumption was that there would be moderate upward movement on the equity markets and a stable interest-rate level.	For the detailed planning phase (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	8.3%	9.4%

The calculation of these values in use is based on distributable target results derived from the current market environment and the latest corporate planning approved by management. Prepared in an interactive process involving the operational units, the responsible controlling units and the Board of Management, the corporate plans are reviewed and updated at least every quarter. The target results were determined based on the assumption that COVID-19 would not adversely affect the earnings prospects of our business models on a permanent basis. The climate risks inherent in our business model for our insurance business have been taken into account in the distributable target results.

The aforementioned key assumptions regarding premium income development and combined ratios derive from the aggregation of the company plans of the individual companies of a cash-generating unit. The key assumptions regarding developments in the equity market and interest-rate level are defined on the basis of the current market environment.

After the detailed planning phase, we estimate the target results achievable long term on the basis of the last adjusted planning year and taking into account growth rates and RoI derived from macroeconomic forecasts.

Cost-of-equity rates derived using the Capital Asset Pricing Model (CAPM) were used as discount rates. As with the target results, we did not assume a permanent increase in cost-of-equity rates due to COVID-19 effects.

When deriving the discount rate based on capital market data, we assume that the climate risks expected by the capital markets are included in their return expectations. Calculations were made after consideration of normalised taxes. In the table, for disclosure purposes, a corresponding discount rate before tax is given in each case. Sensitivity analyses were performed for the discount rates, growth rates and distributable target results. No impairment was identified.

2 Other intangible assets

Development of other intangible assets

	Acquired insurance portfolios		Software			
			Internally developed		Other	
€m	2021	Prev. year	2021	Prev. year	2021	Prev. year
Gross carrying amount at 31 Dec. previous year	1,296	1,319	482	483	1,740	1,556
Accumulated amortisation and impairment losses at 31 Dec. previous year	-1,003	-974	-468	-459	-1,150	-1,085
Carrying amount at 31 Dec. previous year	293	346	14	24	590	471
Currency translation differences	16	-17	-1	0	6	-12
Additions						
Business combinations	0	0	4	0	0	0
Other	0	0	12	11	167	226
Disposals						
Loss of control	0	0	0	0	-1	0
Other	-2	0	-2	-2	-12	-2
Reclassifications	0	0	19	0	-19	-1
Impairment losses reversed	0	0	0	0	0	0
Amortisation and impairment losses						
Amortisation	-28	-36	-22	-18	-104	-84
Impairment losses	0	0	0	0	-1	-7
Carrying amount at 31 Dec. financial year	**280**	**293**	**24**	**14**	**626**	**590**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-887	-1,003	-561	-468	-1,166	-1,150
Gross carrying amount at 31 Dec. financial year	1,167	1,296	585	482	1,792	1,740

Continued on next page

€m	Acquired brand names 2021	Acquired brand names Prev. year	Acquired distribution networks/client bases 2021	Acquired distribution networks/client bases Prev. year	Acquired licences/patents 2021	Acquired licences/patents Prev. year
Gross carrying amount at 31 Dec. previous year	208	214	691	727	329	338
Accumulated amortisation and impairment losses at 31 Dec. previous year	-182	-185	-619	-610	-119	-106
Carrying amount at 31 Dec. previous year	25	29	71	118	210	232
Currency translation differences	2	-2	3	-5	7	-8
Additions						
Business combinations	0	0	51	0	0	1
Other	0	0	0	0	1	0
Disposals						
Loss of control	0	0	0	0	-15	0
Other	0	0	0	0	0	0
Reclassifications	0	0	-13	0	13	0
Impairment losses reversed	0	0	0	0	1	0
Amortisation and impairment losses						
Amortisation	-2	-2	-17	-22	-14	-14
Impairment losses	0	0	0	-20	0	-1
Carrying amount at 31 Dec. financial year	**26**	**25**	**96**	**71**	**203**	**210**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-187	-182	-642	-619	-141	-119
Gross carrying amount at 31 Dec. financial year	213	208	738	691	344	329

€m	Miscellaneous 2021	Miscellaneous Prev. year	Total 2021	Total Prev. year
Gross carrying amount at 31 Dec. previous year	36	36	4,781	4,674
Accumulated amortisation and impairment losses at 31 Dec. previous year	-16	-15	-3,558	-3,434
Carrying amount at 31 Dec. previous year	19	21	1,223	1,240
Currency translation differences	0	-1	34	-44
Additions				
Business combinations	19	0	74	1
Other	0	0	180	237
Disposals				
Loss of control	-4	0	-20	0
Other	0	0	-16	-3
Reclassifications	0	0	0	-1
Impairment losses reversed	0	0	1	0
Amortisation and impairment losses				
Amortisation	-3	-1	-188	-177
Impairment losses	0	0	-1	-29
Carrying amount at 31 Dec. financial year	**32**	**19**	**1,286**	**1,223**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-12	-16	-3,596	-3,558
Gross carrying amount at 31 Dec. financial year	44	36	4,882	4,781

Intangible assets pledged as security and other restrictions on title amounted to €73m (94m). Commitments to acquire intangible assets totalled €70m (46m), the largest share of which was attributable to an IT platform currently being set up in life primary insurance.

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

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

€m	2021	Prev. year
Gross carrying amount at 31 Dec. previous year	7,965	7,302
Accumulated amortisation and impairment losses at 31 Dec. previous year	-1,426	-1,313
Carrying amount at 31 Dec. previous year	6,539	5,989
Currency translation differences	107	-60
Additions		
Subsequent acquisition costs	65	30
Business combinations	0	0
Other	543	801
Disposals		
Loss of control	0	0
Other	-73	-33
Impairment losses reversed	24	20
Amortisation and impairment losses		
Amortisation	-141	-142
Impairment losses	-6	-36
Reclassifications	-31	-31
Carrying amount at 31 Dec. financial year	**7,029**	**6,539**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-1,527	-1,426
Gross carrying amount at 31 Dec. financial year	8,555	7,965

The fair value of investment property at the end of the reporting period amounted to €13,320m (12,131m). 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 1.3% to 3.6% are used for residential buildings and 1.1% to 7.3% for office buildings and commercial property.

Decarbonisation of real estate is part of our climate strategy for our investment portfolio. You can find the target figures for the reduction of carbon emissions in the combined non-financial statement, in the section entitled "Investment – Strategy and objectives". In the valuation of real estate, ESG criteria are also taken into account to determine the fair values. This did not affect the value of the recognised acquisition cost or production cost. In particular, risks arising from climate change are taken into account in the valuation. However, an investigation to quantify physical risks found that, for our portfolio, the impact this has on the values determined is only minimal.

The additions in the reporting year mainly included commercial retail properties in Germany. Disposals chiefly related to the sale of a commercial property in Cologne.

Reclassifications mainly related to property reclassified as held for sale, and formerly owner-occupied property now recognised as investment property due to a change of use.

Property pledged as security and other restrictions on title amounted to €1,855m (1,164m). Contractual commitments to acquire property totalled €44m (35m).

4 Hierarchy for the fair value measurement of assets

All assets recognised at fair value are allocated to one of the fair value hierarchy levels of IFRS 13, as are those assets which are not recognised at fair value in the balance sheet but for which a fair value has to be disclosed in the Notes. Information on the criteria for allocation to the individual levels of the fair value hierarchy can be found under Assets – B Investments – Determining fair values. Regularly, at each reporting date, we assess whether the allocation of our assets to the levels of the valuation hierarchy is still appropriate. If changes in the basis of valuation have occurred – for instance, if a market is no longer active or the valuation was performed using inputs requiring another allocation – we make the necessary adjustments.

The following table provides an overview of the models used to measure the fair values of our investments when market prices are not available.

Valuation techniques for assets

Bonds	Pricing method	Parameters	Pricing model
Interest-rate risks			
Loans against borrower's note/ registered bonds	Theoretical price	Sector-, rating- or issuer-specific yield curve	Present-value method
Cat bond (host)	Theoretical price	Interest-rate curve	Present-value method
Mortgage loans	Theoretical price	Sector-specific yield curve considering the profit margin included in the nominal interest rate	Present-value method

Derivatives	Pricing method	Parameters	Pricing model
Equity and index risks			
OTC stock options	Theoretical price	Listing of underlying shares Effective volatilities Money-market interest-rate curve Dividend yield	Black-Scholes (European) Cox, Ross and Rubinstein (American)
Equity forwards	Theoretical price	Listing of underlying shares Money-market interest-rate curve Dividend yield	Present-value method
Interest-rate risks			
Interest-rate swaps	Theoretical price	Swap and CSA curve[1]	Present-value method
Swaptions/interest-rate guarantee	Theoretical price	At-the-money volatility matrix and skew OIS/swap curve	Bachelier/ Normal Black
Interest-rate currency swaps	Theoretical price	Swap and CSA curve[1] Currency spot rates	Present-value method
Inflation swaps	Theoretical price	Zero-coupon inflation swap rates OIS curve	Present-value method
Bond forwards (forward transactions)	Theoretical price	Listing of underlying OIS curve	Present-value method
Currency risks			
Currency options	Theoretical price	Volatility skew Currency spot rates Money-market interest-rate curve	Garman-Kohlhagen (European)
Currency forwards	Theoretical price	Currency spot rates Currency forward rates/ticks Money-market interest-rate curve	Present-value method
Other transactions			
Insurance derivatives (natural and weather risks)	Theoretical price	Fair values of cat bonds Historical event data Interest-rate curve	Present-value method
Insurance derivatives (variable annuities)	Theoretical price	Biometric rates and lapse rates Volatilities Interest-rate curve Currency spot rates	Present-value method
Credit default swaps	Theoretical price	Credit spreads Recovery rates CSA curve[1]	ISDA CDS Standard Model
Total return swaps on commodities	Theoretical price	Listing of underlying index	Index ratio calculation
Commodity options	Theoretical price	Listing of underlying Effective volatilities Money-market interest-rate curve Cost of carry	Black-Scholes (European) Cox, Ross and Rubinstein (American)

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

Funds	Pricing method	Parameters	Pricing model
Real estate funds	–	–	Net asset value
Alternative investment funds (e.g. private equity, infrastructure, forestry)	–	–	Net asset value

Other	Pricing method	Parameters	Pricing model
Real estate	Theoretical market price	Interest-rate curve Market rents	Present-value method or valuation
Alternative direct investments (e.g. infrastructure, forestry)	Theoretical market price	Interest-rate curve (among others) Electricity price forecast and inflation forecast	Present-value method or valuation
Insurance contracts with non-significant risk transfer	Theoretical market price	Biometric rates and lapse rates Historical event data Interest-rate curve Currency spot rates	Present-value method

1 The OIS curve is used if the quotation currency is the CSA currency.

Insurance derivatives are mostly allocated to Level 3 of the fair value hierarchy, as observable market inputs are often not available. The decision is made on a case-by-case basis, taking into account the characteristics of the financial instrument concerned. If no observable market 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.

The derivative components of catastrophe bonds are measured based on the values supplied by brokers for the underlying bonds, which is why the extent to which inputs used were not based on observable market data cannot readily be assessed.

The inputs requiring consideration in measuring variable annuities are derived either directly from market data (in particular volatilities, interest-rate curves and currency spot rates) or from actuarial data (especially biometric and lapse rates). The lapse rates used are modelled dynamically depending on the specific insurance product and current situation of the capital markets. The assumptions with regard to mortality are based on client-specific data or published mortality tables, which are adjusted with a view to the target markets and the actuaries' expectations. The dependency between different capital market inputs is modelled by correlation matrices. Where the valuation of these products is not based on observable inputs, which is usually the case, we allocate them to Level 3 of the fair value hierarchy.

The other investments allocated to Level 3 are mainly external fund units (in particular, private equity, real estate and funds that invest in a variety of assets that are subject to theoretical valuation). Since market quotes are not available for these on a regular basis, net asset values (NAVs) are provided by the asset managers. We thus do not perform our own valuations using inputs that are not based on observable market data. We regularly subject the valuations supplied to plausibility tests on the basis of comparable investments.

We have taken climate risks and other ESG risks into account implicitly in our determination of fair values using the respective forward-looking valuation inputs, provided that they have an influence on the price in the capital markets in which the products of relevance here are traded.

At 31 December 2021, we allocated around 10% (8%) of the assets listed in the following table to Level 1 of the fair value hierarchy, 71% (78%) to Level 2 and 18% (14%) to Level 3.

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 €63m (65m) and is allocated to Level 1 of the fair value hierarchy.

The table "Reconciliation for investments allocated to Level 3" below presents the reconciliation from the opening balances to the closing balances for investments allocated to Level 3 of the fair value hierarchy.

Gains (losses) recognised in the consolidated income statement are shown in the investment result or insurance-related investment result, while gains (losses) recognised in equity are shown in the statement of recognised income and expense under "Unrealised gains and losses on investments, Gains (losses) recognised in equity". Gains (losses) recognised in the consolidated income statement that are attributable to investments recognised at the end of the financial year are shown in the statement of recognised income and expense under "Unrealised gains and losses on investments, Recognised in the consolidated income statement".

Allocation of financial instruments (including insurance-related investments) to levels of the fair value hierarchy

€m	Level 1	Level 2	Level 3	31.12.2021 Total
Financial instruments measured at fair value				
Investments in affiliated companies measured at fair value	0	0	258	258
Investments in associates and joint ventures measured at fair value	0	0	162	162
Other securities available for sale				
Fixed-interest	0	136,351	1,858	138,209
Non-fixed-interest	15,350	2,208	6,701	24,259
Other securities at fair value through profit or loss				
Held for trading, and hedging derivatives[1]	385	1,436	2	1,823
Designated as at fair value through profit or loss	21	1,116	1	1,139
Other investments	0	36	458	494
Insurance-related investments	6,237	3,916	2,132	12,283
Total	**21,993**	**145,064**	**11,571**	**178,626**
Financial instruments not measured at fair value				
Loans	0	45,927	12,732	58,659
Deposits retained on assumed reinsurance	0	3	8,973	8,975
Other receivables, miscellaneous financial receivables	1,334	1,743	17,326	20,402
Cash at banks and deposits with banks, cheques and cash in hand	5,416	3,360	0	8,775
Total	**6,750**	**51,032**	**39,031**	**96,813**

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€m	Level 1	Level 2	Level 3	Prev. year Total
Financial instruments measured at fair value				
Investments in affiliated companies measured at fair value	0	0	212	212
Investments in associates and joint ventures measured at fair value	0	0	55	55
Other securities available for sale				
Fixed-interest	228	136,483	1,693	138,404
Non-fixed-interest	10,886	1,630	4,468	16,985
Other securities at fair value through profit or loss				
Held for trading, and hedging derivatives[1]	264	2,181	4	2,449
Designated as at fair value through profit or loss	175	322	0	497
Other investments	0	10	335	345
Insurance-related investments	5,390	4,097	1,547	11,033
Total	**16,943**	**144,723**	**8,315**	**169,980**
Financial instruments not measured at fair value				
Loans	0	53,009	11,712	64,722
Deposits retained on assumed reinsurance	0	0	7,980	7,980
Other receivables, miscellaneous financial receivables	0	14,799	10,382	25,181
Cash at banks and deposits with banks, cheques and cash in hand	5,615	3,441	0	9,056
Total	**5,615**	**71,249**	**30,073**	**106,938**

1 Including hedging derivatives of €12m (19m) 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	2021	Prev. year	2021	Prev. year
Carrying amount at 31 Dec. previous year	212	194	55	29
Gains and losses	28	–10	83	1
Gains (losses) recognised in the consolidated income statement	–11	–35	0	0
Gains (losses) recognised in equity	39	24	83	1
Acquisitions	60	49	36	26
Disposals	–28	–20	–12	–1
Transfer to Level 3	1	1	0	0
Transfer out of Level 3	–14	–1	0	0
Changes in the fair value of derivatives	0	0	0	0
Carrying amount at 31 Dec. financial year	**258**	**212**	**162**	**55**
Gains (losses) recognised in the consolidated income statement that are attributable to investments shown at the end of the financial year	–13	–35	0	0

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	Other securities available for sale			
	Fixed-interest		Non-fixed-interest	
€m	2021	Prev. year	2021	Prev. year
Carrying amount at 31 Dec. previous year	1,693	1,443	4,468	4,114
Gains and losses	51	98	1,256	–192
Gains (losses) recognised in the consolidated income statement	11	93	26	–112
Gains (losses) recognised in equity	40	5	1,231	–79
Acquisitions	248	266	3,056	1,115
Disposals	–72	–114	–2,079	–571
Transfer to Level 3	0	0	0	1
Transfer out of Level 3	–62	0	0	0
Changes in the fair value of derivatives	0	0	0	0
Carrying amount at 31 Dec. financial year	**1,858**	**1,693**	**6,701**	**4,468**
Gains (losses) recognised in the consolidated income statement that are attributable to investments shown at the end of the financial year	11	93	–22	–144

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	Designated as at fair value through profit or loss		Held for trading, and hedging derivatives		Other investments	
€m	2021	Prev. year	2021	Prev. year	2021	Prev. year
Carrying amount at 31 Dec. previous year	0	0	4	0	335	302
Gains and losses	0	0	0	0	80	–17
Gains (losses) recognised in the consolidated income statement	0	0	0	0	56	6
Gains (losses) recognised in equity	0	0	0	0	24	–23
Acquisitions	1	1	0	4	64	65
Disposals	0	0	–3	0	–21	–15
Transfer to Level 3	0	0	0	0	0	0
Transfer out of Level 3	0	0	0	0	0	0
Changes in the fair value of derivatives	0	0	0	0	0	0
Carrying amount at 31 Dec. financial year	**1**	**0**	**2**	**4**	**458**	**335**
Gains (losses) recognised in the consolidated income statement that are attributable to investments shown at the end of the financial year	0	0	0	0	56	6

Continued on next page

€m	Insurance-related investments 2021	Insurance-related investments Prev. year	Total 2021	Total Prev. year
Carrying amount at 31 Dec. previous year	1,547	455	8,315	6,537
Gains and losses	479	757	1,977	637
Gains (losses) recognised in the consolidated income statement	461	763	543	715
Gains (losses) recognised in equity	18	-6	1,434	-78
Acquisitions	329	471	3,793	1,996
Disposals	-218	-93	-2,433	-813
Transfer to Level 3	0	0	1	2
Transfer out of Level 3	0	0	-76	-1
Changes in the fair value of derivatives	-6	-43	-6	-43
Carrying amount at 31 Dec. financial year	**2,132**	**1,547**	**11,571**	**8,315**
Gains (losses) recognised in the consolidated income statement that are attributable to investments shown at the end of the financial year	429	775	461	695

5 Investments in affiliated companies, associates and joint ventures

Reversed impairment losses with respect to associates and joint ventures amounted to €49m (20m) and mainly affect the property-casualty reinsurance segment, for which they totalled €47m (20m).

Impairment losses with respect to these companies amounted to €57m (3m), spread across the different segments as follows: property-casualty reinsurance €46m (3m) and ERGO International €11m (0m).

In the financial year, shares of losses of associates and joint ventures amounting to €0m (17m) were not recognised in the balance sheet. Overall, losses not recognised in the balance sheet totalled €21m (21m).

Further information about affiliated companies, associates and joint ventures can be found under (48) Contingent liabilities, other financial commitments, (49) Significant restrictions, and in the List of shareholdings as at 31 December 2021 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	31.12.2021	Prev. year
Overall result for the year after tax from continued operations	62	77
Result after tax from discontinued operations	0	0
Income and expenses recognised directly in equity	9	12
Total recognised income and expenses	**71**	**89**

6 Loans

Breakdown of loans

€m	Carrying amounts 31.12.2021	Carrying amounts Prev. year
Mortgage loans	7,900	7,342
Loans and advance payments on insurance policies	183	201
Other loans	42,306	44,401
Total	**50,389**	**51,944**

Other loans mainly comprise covered bonds and government bonds.

The fair value of the loans is based on recognised valuation techniques in line with the present value principle and taking observable and, in some cases, non-observable market inputs into account (see (4) Hierarchy for the fair value measurement of assets). The fair value totalled €58,659m (64,722m) at the reporting date.

Rating of loans on the basis of amortised cost[1, 2]

€m	31.12.2021	Prev. year
AAA	22,200	24,025
AA	13,173	14,100
A	1,960	2,149
BBB or lower	4,342	3,445
No rating	8,531	8,023
Total	**50,206**	**51,743**

1 Loans and advance payments on insurance policies are not included.
2 The previous year's figures were adjusted following the revision of rating categories and their allocation in the rating model.

The rating categories are based on those of the leading international rating agencies. We do not give a rating to the mortgage loans provided by our primary insurance companies. We issue mortgage loans only to clients with an excellent credit standing and when the respective land and buildings provide sufficient security for the loan. There is almost no credit risk for loans and advance payments on insurance policies either, due to the type of business and the security it provides.

7 Other securities available for sale

Approximately 30% 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 €9,412m (8,760m). Of the securities shown, €2,671m (2,560m) had been loaned to third parties. Loaned securities are not derecognised, as the main resultant risks and rewards remain with Munich Re. Of the €12,967m (17,293m) in unrealised gains and losses, €5,611m (7,874m) 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.

Of the securities shown, €2,121m (1,850m) are green bonds; further information is available in the combined non-financial statement section of the combined management report, under “Sustainability in investment and insurance”.

Other securities available for sale also include participating interests pursuant to Section 271(1) of the German Commercial Code (HGB).

Disposal proceeds

€m	2021	Prev. year
Fixed-interest securities	67,003	50,491
Non-fixed-interest securities		
Quoted	6,389	16,574
Unquoted	16,746	11,707
Total	**90,138**	**78,772**

Realised gains and losses

€m	2021	Prev. year
Gains on disposal	2,876	3,645
Fixed-interest securities	1,424	1,900
Non-fixed-interest securities	1,452	1,745
Losses on disposal	–628	–940
Fixed-interest securities	–478	–272
Non-fixed-interest securities	–150	–668
Total	**2,248**	**2,704**

Rating of fixed-interest securities according to fair values[1]

€m	31.12.2021	Prev. year
AAA	55,770	49,033
AA	28,929	31,211
A	22,425	23,178
BBB	22,325	22,942
Lower	8,276	11,479
No rating	485	560
Total	**138,209**	**138,404**

1 The previous year’s figures were adjusted following the revision of rating categories and their allocation in the rating model.

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	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year
Fixed-interest securities						
Government bonds						
Germany	7,315	7,360	895	1,257	6,420	6,103
Rest of EU	24,737	28,424	2,264	4,566	22,473	23,858
USA	21,418	18,582	1,439	1,758	19,978	16,823
Other	28,730	25,529	774	1,741	27,956	23,787
Corporate debt securities	45,804	49,103	1,492	3,474	44,311	45,629
Other	10,207	9,407	1,214	1,630	8,993	7,777
	138,209	**138,404**	**8,078**	**14,426**	**130,131**	**123,978**
Non-fixed-interest securities						
Shares	15,031	10,485	3,036	2,121	11,995	8,363
Investment funds						
Equity funds	945	660	185	79	760	581
Bond funds	2,096	1,677	54	69	2,042	1,608
Real estate funds	305	334	41	54	264	280
Other	5,882	3,829	1,573	543	4,309	3,286
	24,259	**16,985**	**4,888**	**2,866**	**19,370**	**14,118**
Total	**162,468**	**155,389**	**12,967**	**17,293**	**149,501**	**138,096**

8 Other securities at fair value through profit or loss and insurance-related investments

Securities measured at fair value through profit or loss comprise securities held for trading amounting to €1,811m (2,430m) as well as securities and loans amounting to €1,139m (497m).

The securities held for trading are made up of fixed-interest securities totalling €13m (15m), non-fixed-interest securities totalling €80m (76m) and derivatives amounting to €1,718m (2,339m). Of the securities designated as at fair value through profit or loss, €1,118m (310m) is assignable to fixed-interest securities and loans and €21m (187m) to non-fixed interest securities. Some €2m (3m) of the instruments measured at fair value through profit or loss is due within one year.

Rating of fixed-interest securities according to fair values[1]

€m	31.12.2021	Prev. year
AAA	7	7
AA	38	39
A	397	62
BBB	310	47
Lower	235	17
No rating	144	154
Total	**1,131**	**326**

1 The previous year's figures were adjusted following the revision of rating categories and their allocation in the rating model.

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 €8,582m (7,544m). Other insurance-related investments amounted to €3,701m (3,489m), of which €2,929m (2,870m) were accounted for at fair value through profit or loss and €244m (225m) were accounted for at fair value outside profit or loss.

Derivative financial instruments are used by Munich Re to manage and hedge against interest-rate, currency, and other market risks. This is done at the Group companies within the framework of the applicable supervisory regulations and additional internal company guidelines. Given the daily collateral-adjustment process, the risk of default is practically non-existent in the case of products traded on the stock exchange and for centrally cleared and secured over-the-counter (OTC) derivatives. Unsecured OTC products, on the other hand, harbour a theoretical risk in the amount of the replacement costs. Therefore, Munich Re selects only top-quality counterparties for such transactions, and exchanges collateral daily on the basis of current fair values.

As at 31 December 2021, 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 €3m (57m), and the cash collateral approximately €334m (749m). The collateral received is subject to a title transfer collateral arrangement, but is not re-sold or pledged. In accordance with the provisions of IAS 32 – Financial Instruments: Presentation, derivatives with a positive market value of €179m (154m) are subject to offsetting in the balance sheet.

Disclosure of derivatives by balance sheet item

€m			31.12.2021	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	1,718	2,339
	No	Insurance-related investments	3,457	3,263
	Yes	Other assets	12	19
Negative	No Yes	Liabilities, other liabilities	–3,457	–3,328
Total			**1,729**	**2,294**

Although the derivatives used by Munich Re essentially serve to hedge against risks, only an amount of €12m (19m) meets the requirements of IAS 39 for hedge accounting.

IAS 39 distinguishes between fair value hedges and cash flow hedges.

Fair value hedges In the case of fair value hedges, the change in the fair value of the hedging instrument and the change in the fair value of the hedged instrument are generally recognised in profit or loss under the item "investment result". Munich Re regularly uses hedging relationships in the form of fair value hedges to selectively and efficiently mitigate interest-rate and other market risks. The main types of transaction employed for hedging are swaps and forwards. No fair value hedges existed at year-end.

Cash flow hedges play a role in countering fluctuations that may be caused, for example, by variable interest payments. Munich Re uses cash flow hedges chiefly to hedge against interest-rate risks, with interest-rate swaps being the main instruments employed. Changes in the fair value of the hedging instrument are recognised directly in equity for this purpose. Only when the actual cash inflow or outflow takes place – as a result of the hedged circumstance – is the relevant equity item reversed with recognition in profit or loss. The change in fair value assignable to the ineffective portion of the hedging was negligible at the reporting date. At the end of the reporting period, there was an equity item of €11m (9m) from cash flow hedges. The net fair value of the derivatives falling into this category amounted to €12m (19m) at the end of the reporting period.

Periods to maturity and amount of the hedged cash flows at the end of the reporting period

€m	< 1 year	1–2 years	2–3 years	3–4 years	4–5 years	> 5 years	31.12.2021	Prev. year
Notional amounts of hedged transactions	0	0	0	0	0	90	90	90

Below, we present an overview of the financial assets and liabilities for which master netting agreements or similar contractual agreements exist. The overview contains instruments that satisfy the offsetting criteria pursuant to IAS 32 and are therefore offset in the balance sheet, as well as those instruments that are subject to an enforceable netting agreement, but are not permitted to be offset in the balance sheet. The other receivables and liabilities involve insurance contracts with non-significant risk transfer, for which cash collateral has been held.

Offsetting of financial assets

31.12.2021 €m	Gross amount	Amounts set off	Net amount presented	Amounts not set off	Financial collaterals	Cash collaterals	Net amount
Derivatives	4,840	179	4,661	1,041	719	981	1,921
Securities lending	477	0	477	0	477	0	0
Repurchase agreements	0	0	0	0	0	0	0
Miscellaneous receivables	12,091	306	11,785	0	0	6	11,778
Total	**17,409**	**486**	**16,923**	**1,041**	**1,196**	**987**	**13,699**

Offsetting of financial liabilities

31.12.2021 €m	Gross amount	Amounts set off	Net amount presented	Amounts not set off	Financial collaterals	Cash collaterals	Net amount
Derivatives	3,637	179	3,457	1,041	326	1,227	864
Securities lending	0	0	0	0	0	0	0
Repurchase agreements	103	0	103	0	103	0	0
Miscellaneous liabilities	8,630	306	8,324	0	72	5	8,248
Total	**12,370**	**486**	**11,885**	**1,041**	**501**	**1,232**	**9,111**

Offsetting of financial assets

Prev. year €m	Gross amount	Amounts set off	Net amount presented	Amounts not set off	Financial collaterals	Cash collaterals	Net amount
Derivatives	5,384	154	5,230	1,231	896	1,639	1,464
Securities lending	617	0	617	0	617	0	0
Repurchase agreements	50	0	50	0	50	0	0
Miscellaneous receivables	10,385	762	9,623	0	0	24	9,599
Total	**16,436**	**916**	**15,521**	**1,231**	**1,563**	**1,663**	**11,064**

Offsetting of financial liabilities

Prev. year €m	Gross amount	Amounts set off	Net amount presented	Amounts not set off	Financial collaterals	Cash collaterals	Net amount
Derivatives	3,482	154	3,328	1,231	343	1,105	649
Securities lending	0	0	0	0	0	0	0
Repurchase agreements	99	0	99	0	99	0	0
Miscellaneous liabilities	7,589	762	6,827	0	91	1	6,735
Total	**11,169**	**916**	**10,254**	**1,231**	**533**	**1,106**	**7,384**

9 Deposits retained on assumed reinsurance

Deposits retained on assumed reinsurance serve as collateral for technical provisions covering business assumed from cedants in reinsurance. The amount of and changes in deposits retained on assumed reinsurance derive from the values for the changes in the related technical provisions. Deposits retained on assumed reinsurance business thus do not have a fixed maturity date, and their return is generally dependent on the run-off of the corresponding provisions.

10 Other investments

Other investments comprise deposits with banks totalling €3,363m (3,441m), investments in renewable energies amounting to €537m (605m), physical gold of €409m (409m), and forestry investments of €494m (345m).

Of the amounts held on deposit with banks, €3,362m (3,429m) 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 €33m (30m) for deposits with banks.

Development of investments in renewable energies

€m	2021	Prev. year
Gross carrying amount at 31 Dec. previous year	941	932
Accumulated amortisation and impairment losses at 31 Dec. previous year	-336	-285
Carrying amount at 31 Dec. previous year	605	646
Currency translation differences	6	-4
Additions		
Business combinations	0	0
Other	48	17
Disposals		
Loss of control	-70	0
Other	-20	0
Impairment losses reversed	5	0
Depreciation and impairment losses		
Depreciation	-37	-45
Impairment losses	0	-9
Reclassification	0	0
Carrying amount at 31 Dec. financial year	**537**	**605**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-255	-336
Gross carrying amount at 31 Dec. financial year	792	941

The expenditures recognised in the carrying amount for assets in the course of construction totalled €21m (14m) for renewable energy investments.

The investments in renewable energies include items pledged as security, and other restrictions on title, amounting to €61m (144m).

Development of forestry investments

€m	2021	Prev. year
Carrying amount at 31 Dec. previous year	345	313
Currency translation differences	25	-24
Additions		
Business combinations	0	0
Acquisitions	92	65
Disposals		
Loss of control	0	0
Sales	-27	-15
Change in fair value less estimated costs to sell	59	6
Other changes	0	0
Carrying amount at 31 Dec. financial year	**494**	**345**

11 Ceded share of technical provisions

Ceded share of technical provisions

€m	31.12.2021	Prev. year
Unearned premiums	470	392
Provision for future policy benefits	2,637	2,064
Provision for outstanding claims	2,952	2,797
Other technical provisions	40	67
Total	**6,099**	**5,321**

Details of the ceded share of technical provisions are shown under (20) Unearned premiums, (21) Provisions for future policy benefits, (22) Provisions for outstanding claims, (23) Other technical provisions, and in the Credit risks section of the risk report in the combined management report.

12 Other receivables

Breakdown of other receivables

€m	31.12.2021	Prev. year
Amounts receivable on primary insurance business	3,271	3,098
Accounts receivable on reinsurance business	10,337	8,558
Miscellaneous receivables	15,450	13,774
Total	**29,058**	**25,431**

Of the amounts receivable on primary insurance business, €913m (946m) is apportionable to receivables from insurance agents. The miscellaneous receivables include receivables of €11,785m (9,623m) resulting from insurance contracts with non-significant risk transfer, which do not fall within the scope of IFRS 4. Financial assets of €306m (762m) resulting from these contracts are netted with the corresponding liabilities in the balance sheet. For information on the offsetting of miscellaneous receivables, please refer to (8) Other securities at fair value through profit or loss and insurance-related investments.

Assets pledged as security and other restrictions on title amount to €91m (87m).

The miscellaneous receivables contain cash collateral of €1,849m (1,584m), mainly for derivative transactions.

Given that the majority of other receivables, i.e. a total of €16,994m (15,629m), have a period to maturity of less than one year, the fair values largely correspond to the carrying amounts. The miscellaneous receivables include receivables of €11,785m (9,623m) resulting from insurance contracts with non-significant risk transfer. These usually have longer periods to maturity which correspond to the cover and run-off periods of the underlying risks. Their fair value amounted to €4,088m (10,405m). We allocate these to Level 3 of the fair value hierarchy, as their measurement is primarily based on biometric and lapse rates and historical event data.

As at 31 December 2021, 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	31.12.2021	Prev. year
AAA	34	34
AA	57	59
A	68	74
BBB and lower	6	6
No external rating	188	54

Of all our receivables on underwriting business at the end of the reporting period, €618m (496m) were outstanding for more than 90 days. The average default rate for the last three years was 1.5% (1.8%).

13 Deferred acquisition costs

Deferred acquisition costs

€m	31.12.2021	Prev. year
Gross	10,545	9,617
Ceded share	–608	–498
Net	**9,937**	**9,119**

Development of gross deferred acquisition costs

€m	31.12.2021	Prev. year
Status at 31 Dec. previous year	9,617	9,664
Currency translation differences	197	–279
Change in consolidated group/Other	–20	–5
New deferred acquisition costs	5,091	4,417
Changes		
Amortisation	–4,407	–4,069
Impairment losses	67	–111
Status at 31 Dec. financial year	**10,545**	**9,617**

The changes shown under amortisation include accrued interest.

The impairment losses resulted from changes in the assumptions underlying the calculations which required an adjustment in the measurement. They were chiefly attributable to the ERGO Life and Health Germany segment, and were driven by changes in interest-rate assumptions.

14 Deferred tax

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

Deferred tax

€m	31.12.2021 Assets	Liabilities	Prev. year Assets	Liabilities
Assets				
A. Intangible assets	96	124	137	113
B. Investments	2,789	4,259	2,475	4,291
C. Insurance-related investments	2	36	1	26
E. Receivables	63	167	154	194
I. Other assets	664	1,152	588	1,005
Total assets	**3,614**	**5,738**	**3,355**	**5,629**
Equity and liabilities				
C. Net technical provisions	4,027	4,580	3,425	5,050
E. Other provisions	1,261	296	1,346	271
F. Liabilities	455	43	342	94
Total equity and liabilities	**5,743**	**4,919**	**5,113**	**5,415**
Loss carry-forwards and tax credits	**503**	**0**	**561**	**0**
Total before netting	**9,860**	**10,657**	**9,029**	**11,044**
Netting amount	–9,357	–9,357	–8,751	–8,751
Total	**503**	**1,300**	**278**	**2,293**

No deferred taxes were posted for temporary differences of €134m (136m) 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 €124m (28m) due to lack of recoverability.

The available tax loss carry-forwards and tax credits are broken down as follows.

Tax loss carry-forwards and tax credits

€m	31.12.2021 For which deferred tax assets are recognised	For which deferred tax assets are not recognised	Total	Prev. year 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	43	23	66	63	19	82
Expiring in over three years and up to ten years	162	55	217	87	71	158
Expiring in over ten years	631	40	671	152	33	185
Not expiring	1,180	1,683	2,863	1,010	2,350	3,360
	2,016	**1,801**	**3,817**	**1,312**	**2,473**	**3,785**
Trade tax loss carry-forwards						
Not expiring	62	270	332	1,495	286	1,781
	62	**270**	**332**	**1,495**	**286**	**1,781**
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	48	48	0	26	26
Expiring in over three years and up to ten years	0	73	73	0	81	81
Expiring in over ten years	0	0	0	0	0	0
Not expiring	2	0	2	0	0	0
	2	**121**	**123**	**0**	**107**	**107**

15 Other assets

These mainly comprise property, plant and equipment, with owner-occupied property totalling €1,943m (2,045m), and operating and office equipment amounting to €201m (213m). Advance payments on insurance amounted to €266m (284m), derivatives totalled €12m (19m), and miscellaneous deferred items came to €219m (181m).

Development of property, plant and equipment

€m	Owner-occupied property		Operating and office equipment		Total	
	2021	Prev. year	2021	Prev. year	2021	Prev. year
Gross carrying amount at 31 Dec. previous year	3,328	3,361	991	1,012	4,318	4,373
Accumulated amortisation and impairment losses at 31 Dec. previous year	-1,282	-1,234	-778	-778	-2,060	-2,012
Carrying amount at 31 Dec. previous year	2,045	2,127	213	234	2,258	2,361
Currency translation differences	12	-18	5	-6	16	-23
Additions						
Business combinations	0	0	7	0	7	0
Other	25	19	69	75	94	94
Disposals						
Loss of control	0	0	0	0	0	0
Other	-60	-1	-14	-5	-74	-6
Impairment losses reversed	3	8	0	0	3	8
Depreciation and impairment losses						
Depreciation	-65	-67	-73	-81	-138	-148
Impairment losses	-1	-3	-5	0	-6	-3
Reclassification	-15	-22	0	-3	-16	-25
Carrying amount at 31 Dec. financial year	**1,943**	**2,045**	**201**	**213**	**2,145**	**2,258**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-1,313	-1,282	-770	-778	-2,083	-2,060
Gross carrying amount at 31 Dec. financial year	3,256	3,328	971	991	4,228	4,318

The fair value of the land and buildings amounted to €3,647m (3,505m). This was allocated to Level 3 of the fair value hierarchy (see "Assets – B Investments – Determining fair values"). The methodology for determining the fair values is described in "(3) Land and buildings, including buildings on third-party land".

The expenditures recognised in the carrying amount for assets in the course of construction total €5m (19m) for property and €9m (12m) for operating and office equipment. Commitments to acquire property totalled €4m (3m) and commitments to acquire operating and office equipment totalled €22m (9m).

As at 31 December 2021, rights of use from leases amounted to €420m (395m). These mainly comprise rights to use land and buildings of €396m (373m). Additions to rights of use in the financial year came to €118m (136m). The depreciation expense came to €93m (88m) in the financial year.

For information on the offsetting of derivatives, please refer to (8) Other securities at fair value through profit or loss and insurance-related investments.

16 Non-current assets held for sale

At the end of December 2021, the JSC "ERV Travel Insurance", Moscow, was classified as held for sale. No value adjustments resulted from the classification. The transaction is subject to the approval of the supervisory authorities. The sale is expected to occur in the course of 2022.

At the end of the reporting period, an investment property of ERGO Lebensversicherung AG, Hamburg, and two properties held in the separate funds MEAG German Prime Opportunities (GPO), Munich, and MEAG European Prime Opportunities, Munich, were classified as held for sale. No value adjustments were required as a result of these classifications. The properties are expected to be sold in the first half of 2022.

At the end of the reporting period, Imofloresmira – Investimentos Imobiliários S.A., Lisbon, was classified as held for sale. No value adjustments resulted from the classification. The sale is expected to occur in the first half of 2022.

A group of three Dutch subsidiaries comprising DAS Holding N.V., Amsterdam, DAS Legal Finance B.V., Amsterdam, and DAS Nederlandse Rechtsbijstand Verzekeringmaatschappij N.V., Amsterdam, was still classified as held for sale at the end of the reporting period. This classification did not result in any material value adjustments. The sale is expected to occur in the course of 2022.

In addition, the Romanian insurance companies ERGO ASIGURARI S.A., Bucharest, and ERGO ASIGURARI DE

VIATA S.A., Bucharest, as well as the associate Europai Utazasi Biztosito Rt., Budapest, were classified as held for sale at the end of the reporting period. This did not result in any material value adjustments. All transactions are subject to the approval of the local supervisory authorities. The sales are expected to occur in the first half of 2022.

In the context of a portfolio transfer, the cash at bank and liabilities of ERGO Insurance N.V., Brussels, were classified as held for sale at the end of the reporting period. No value adjustments resulted from the classification. The sale took place in early January 2022.

Four investment properties of ERGO Versicherung Aktiengesellschaft, Düsseldorf, and one investment property of ERGO Lebensversicherung Aktiengesellschaft, Hamburg, were sold at the beginning of June 2021.

One property held in the separate fund iii, Munich, and an additional one held in the separate fund MEAG German Prime Opportunities (GPO), Munich, both of which were classified as held for sale, were sold in Q3 2021. One property held in the separate fund MEAG European Prime Opportunities, Munich, was reclassified at the end of the reporting period. All properties were initially classified as held for sale in the first half of 2021.

MR RENT-Investment GmbH, Munich, the holding company of four German wind park companies, was sold and deconsolidated in Q3 2021. Further information on gains and losses from losing control can be found in the section “Consolidated group”. In addition, the insurance company ERGO pojišťovna, a.s., Prague, and the Cannock Chase Group, a group of seven Dutch subsidiaries belonging to DAS Legal Finance B.V., Amsterdam, were sold and deconsolidated in Q4 2021.

The associate T-Solar Global Operating Assets S.L., Madrid, was sold in Q2 2021. It was initially classified as held for sale in Q1 2021.

The associate National Health Insurance Company – Daman – PJSC, Abu Dhabi, was sold in Q4 2021. It was initially classified as held for sale in Q3 2021.

The other reserves of Group equity include €2.1m for disposable groups; these were attributable to €9.5m in unrealised gains on fixed-interest securities and €7.4m 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 non-current assets held for sale are shown in the following table:

Non-current assets and disposal groups held for sale

€m	31.12.2021	Prev. year
Assets		
Land and buildings, including buildings on third-party land	42	56
Other securities available for sale	309	87
Other investments	3	0
Other assets of the disposal group	198	72
Total assets	**552**	**215**
Liabilities		
Gross technical provisions	201	105
Other liabilities of the disposal group	94	18
Total liabilities	**294**	**123**

The “Other securities available for sale” shown in the table were predominantly allocated to Level 1 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 2021 was divided into 140,098,931 no-par-value registered shares, each fully paid up and carrying one vote. The number of shares in circulation was as follows:

Development of shares in circulation

Number of shares	2021	Prev. year
Status at 31 Dec. previous year	140,098,931	141,460,598
Reductions		
Acquisition of shares for retirement (share buy-back programme)	0	–1,361,667
Status at 31 Dec. financial year	**140,098,931**	**140,098,931**

On 31 December 2021, no Munich Reinsurance Company shares were held by Group companies.

A total of €1,373m was distributed to Munich Reinsurance Company's equity holders for the financial year 2020 in the form of a dividend of €9.80 per dividend-bearing share.

Composition of the authorised capital

€m	31.12.2021
Authorised Capital 2021 (until 27 April 2026)	118
Total	**118**

Composition of the contingent capital

€m	31.12.2021
Contingent Capital 2020 (until 28 April 2025)	117
Total	**117**

Tax effects in the income and expenses recognised directly in equity

	2021			Prev. year		
€m	Before tax	Tax	After tax	Before tax	Tax	After tax
Currency translation	1,110	0	1,110	−1,392	0	−1,392
Unrealised gains and losses on investments	−2,705	543	−2,162	2,261	−607	1,654
Change resulting from equity method measurement	−60	0	−60	−91	0	−91
Change resulting from cash flow hedges	1	0	0	−2	0	−2
Remeasurements of defined benefit plans	713	−213	500	−289	85	−204
Other changes	14	0	14	−1	0	−1
Income and expenses recognised directly in equity	**-927**	**330**	**-597**	**485**	**-522**	**-36**

The taxes of €330m (−522m) recognised directly in equity comprise an amount of €280m (−484m) for deferred tax assets, and current taxes on unrealised gains and losses of €50m (−38m) on investments.

Information on capital management is provided in the combined management report under “Financial position – Capital position”.

18 Hierarchy for the fair value measurement of liabilities

All financial liabilities that are recognised at fair value, and such financial instruments that are not recognised at fair value but for which a fair value is disclosed in the Notes, are allocated to one of the fair value hierarchy levels of IFRS 13.

At each reporting date, we assess whether the allocation of these liabilities to the levels of the fair value hierarchy is still appropriate. If changes in the basis of valuation have occurred – for instance, if a market is no longer active or the valuation was performed using inputs requiring another allocation – we make the necessary adjustments.

For information on the valuation models used for measuring derivatives, please see the table and explanations under (4) Hierarchy for the fair value measurement of assets. The measurement of subordinated bonds for which no market prices are available is conducted using the present-value method and taking observable market inputs into account. For the bonds we have issued, we use the market prices provided by price quoters for the corresponding assets. The fair values of our amounts due to banks are determined using the present-value method, in part exclusively using observable market inputs, and partly also taking into account non-observable inputs.

The following table shows the allocation of the financial liabilities to levels of the fair value hierarchy.

Allocation of financial liabilities to levels of the fair value hierarchy

				31.12.2021
€m	Level 1	Level 2	Level 3	Total
Liabilities measured at fair value				
Other liabilities				
Derivatives	56	1,582	1,819	3,457
Total	**56**	**1,582**	**1,819**	**3,457**
Liabilities not measured at fair value				
Subordinated liabilities	5,170	64	0	5,234
Bonds and notes issued	370	0	0	370
Amounts due to banks	0	948	70	1,017
Other liabilities from financial transactions	674	1,203	521	2,398
Deposits retained on ceded business	0	0	1,502	1,502
Other financial liabilities	269	837	7,624	8,730
Total	**6,483**	**3,051**	**9,717**	**19,251**

→				Prev. year
€m	Level 1	Level 2	Level 3	Total
Liabilities measured at fair value				
Other liabilities				
Derivatives	22	1,676	1,630	3,328
Total	**22**	**1,676**	**1,630**	**3,328**
Liabilities not measured at fair value				
Subordinated liabilities	5,448	57	2	5,507
Bonds and notes issued	374	0	0	374
Amounts due to banks	0	331	697	1,028
Other liabilities from financial transactions	3	2,771	16	2,790
Deposits retained on ceded business	0	1,262	0	1,262
Other financial liabilities	0	8,518	7,517	16,036
Total	**5,826**	**12,939**	**8,231**	**26,996**

Only derivatives with a negative fair value are currently recognised at fair value. Of these, we mainly allocate the insurance derivatives to Level 3 of the fair value hierarchy, depending on the observation of specific market inputs.

Considering the sensitivity of the applied non-observable inputs, we refer to the remarks found in (4) Hierarchy for the fair value measurement of assets.

The following table presents the reconciliation from the opening balances to the closing balances for these insurance-linked derivatives:

Reconciliation for liabilities allocated to Level 3

	Other liabilities at fair value through profit or loss	
€m	31.12.2021	Prev. year
Carrying amount at 31 Dec. previous year	1,630	731
Gains and losses	149	-286
Gains (losses) recognised in the income statement	158	-291
Gains (losses) recognised in equity	-9	5
Acquisitions	634	859
Disposals	-290	-203
Transfer to Level 3	0	0
Transfer out of Level 3	0	0
Change in the fair value of derivatives	-6	-43
Carrying amount at 31 Dec. financial year	**1,819**	**1,630**
Gains (losses) recognised in the income statement that are attributable to liabilities shown at the end of the financial year	132	-262

Gains (losses) recognised in the consolidated income statement are shown in the insurance-related investment result, while gains (losses) recognised in equity are shown in the statement of recognised income and expense in the item “Unrealised gains and losses on investments, Gains (losses) recognised in equity”. Gains (losses) recognised in the consolidated income statement that are attributable to liabilities recognised at the end of the financial year are shown in the statement of recognised income and expense under “Unrealised gains and losses on investments, Recognised in the consolidated income statement”.

19 Subordinated liabilities

In the financial year, Munich Reinsurance Company issued its second subordinated green bond, with the volume issued amounting to €1,000m; further information can be found in the combined management report under “Combined non-financial statement, Sustainability in investment and insurance”.

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 €202m (190m). Thereafter, the liquidity outflows will vary, depending on the respective interest-rate level. For the registered bonds of ERGO Versicherung Aktiengesellschaft, and for the HSB Group bonds, the annual outflow is variable, depending on the respective interest-rate levels.

Possible bond maturities are determined by the terms of the bond.

The fair value of the subordinated liabilities at the end of the reporting period amounted to €5,234m (5,507m). 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	31.12.2021	Prev. year
Munich Reinsurance Company, Munich, 1.00% until 2032, thereafter floating, €1,000m, Bonds 2021/2042	–	A	–	A	994	0
Munich Reinsurance Company, Munich, 1.25% until 2031, thereafter floating, €1,250m, Bonds 2020/2041	–	A	–	A	1,244	1,237
Munich Reinsurance Company, Munich, 3.25% until 2029, thereafter floating, €1,250m, Bonds 2018/2049	–	A	A2 (hyb)	–	1,264	1,262
Munich Reinsurance Company, Munich, 6.25% until 2022, thereafter floating, €900m, Bonds 2012/2042	a+	A	–	A	933	932
Munich Reinsurance Company, Munich, 6.625% until 2022, thereafter floating, £450m, Bonds 2012/2042	a+	A	–	A	557	522
Munich Reinsurance Company, Munich, 6.00% until 2021, thereafter floating, €1,000m[1], Bonds 2011/2041	a+	A	–	A	0	1,035
ERGO Versicherung Aktiengesellschaft, Vienna, secondary market yield on federal government bonds (Austria) +70 BP, €6m, Registered bonds 2001/perpetual	–	–	–	–	6	6
ERGO Versicherung Aktiengesellschaft, Vienna, secondary market yield on federal government bonds (Austria) +70 BP, €7m, Registered bonds 1998/perpetual	–	–	–	–	7	7
HSB Group Inc., Delaware, LIBOR +91 BP, US$ 67m, Bonds 1997/2027	–	–	–	–	51	46
Total					**5,055**	**5,047**

1 Munich Reinsurance Company fully redeemed the bond in Q2 2021.

20 Unearned premiums

Unearned premiums

€m	31.12.2021	Prev. year
Gross	13,474	10,964
Ceded share	-470	-392
Net	**13,004**	**10,571**

Development of gross unearned premiums

€m	31.12.2021	Prev. year
Status at 31 Dec. previous year	10,964	10,518
Currency translation differences	572	-655
Changes in consolidated group/Other	-32	-1
Gross premiums written	59,567	54,890
Earned premiums	-57,597	-53,788
Status at 31 Dec. financial year	**13,474**	**10,964**

The increase in gross unearned premiums to €13,474m (10,964m) is attributable to the increase in premiums written to €59,567m (54,890m).

21 Provision for future policy benefits

Provision for future policy benefits

€m	31.12.2021	Prev. year
Gross	114,586	112,928
Ceded share	-2,637	-2,064
Net	**111,949**	**110,864**

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

€m	31.12.2021	Prev. year
Life and health	**114,051**	**112,329**
Reinsurance	13,420	12,464
ERGO	100,631	99,866
Term life insurance	2,113	2,257
Other life insurance	20,294	21,247
Annuity insurance	37,070	36,658
Disability insurance	1,332	1,330
Contracts with combination of more than one risk	0	7
Health	39,821	38,366
Property-casualty	**535**	**599**
Reinsurance	0	0
ERGO	535	599
Total	**114,586**	**112,928**

The provision for future policy benefits in life reinsurance largely involves contracts where the mortality or morbidity risk predominates. In reinsurance, annuity contracts have a significantly lower weight than in primary insurance.

Essentially the same actuarial assumptions have been used as in the previous year for measuring the provisions for future policy benefits for business in force.

In the ERGO Life and Health Germany segment, there was an adjustment in the financial year to the assumptions regarding future lapses and long-term interest-rate levels that are geared to the long-term regular return on investments. The provision for future policy benefits increased as a result of these adjustments. In life primary insurance, we did not see any substantial effects from COVID-19 on the measurement of the provision for future policy benefits. In reinsurance, as we expect only a temporary and limited increase in mortality, COVID-19 will not have a significant impact on the provision for future policy benefits. In life reinsurance, there were no effects on the mortality assumptions relating to climate change either.

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

Development of gross provision for future policy benefits

€m	2021	Prev. year
Status at 31 Dec. previous year	112,928	112,302
Currency translation differences	502	-535
Changes in consolidated group/Other	548	747
Changes		
Scheduled	610	426
Unscheduled	-2	-12
Status at 31 Dec. financial year	**114,586**	**112,928**

The change shown under "Changes in consolidated group/Other" contains €146m (246m) in savings premiums for capitalisation products and €658m (658m) for reclassifications from the provision for premium refunds. It also includes the provision for future policy benefits of the disposal group amounting to −€13m (−29m).

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 2021 financial year.

22 Provision for outstanding claims

Provision for outstanding claims

€m	31.12.2021	Prev. year
Gross	81,671	72,475
Ceded share	-2,952	-2,797
Net	**78,718**	**69,678**

Gross provision by type

€m	31.12.2021	Prev. year
Annuity claims provision	8,509	8,107
Case reserve	29,377	25,938
IBNR reserve	43,784	38,431
Total	**81,671**	**72,475**

The annuity claims provision involves periodic payments for occupational and other disability cases and is usually due long term. A major part of this provision is established in the life and health reinsurance and ERGO Life and Health Germany segments for future annuity payments; a small part refers to provisions for annuities in personal accident, liability and workers' compensation insurance. The biometric actuarial assumptions are selected using appropriate actuarial principles.

Provisions for annuity claims are calculated as the present value of the expected future payments. The discount rates used are presented under (39) Disclosures on risks from life and health insurance business and (40) Disclosures on risks from property-casualty insurance business.

The case reserve reflects the amount which is expected to be needed to settle claims which are known and have already been reported at the balance sheet date. The major part of this provision is measured at face value. The IBNR reserve is calculated using actuarial methods on the basis of historical claims development data and taking into account foreseeable future trends.

Expected payments from the provisions for outstanding claims (property-casualty only)

		Reinsurance		ERGO
%	31.12.2021	Prev. year	31.12.2021	Prev. year
Up to one year	32.8	34.1	32.0	30.7
Over one year and up to five years	46.1	45.8	37.4	37.7
Over five years and up to ten years	13.5	12.7	15.0	15.4
Over ten years and up to fifteen years	3.6	3.4	5.5	5.9
Over fifteen years	4.1	4.0	10.1	10.3

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]

			2021			Prev. year
€m	Gross	Ceded share	Net	Gross	Ceded share	Net
Balance at 31 Dec. previous year	58,848	–2,634	56,214	57,809	–2,700	55,109
Currency translation differences	2,719	–138	2,581	–3,014	187	–2,827
Changes in consolidated group/Other	–127	7	–120	–4	0	–4
Claims expenses						
For the year under review	23,995	–841	23,154	22,561	–768	21,794
For previous years	–1,553	154	–1,400	–1,361	34	–1,327
Total claims expenses	22,441	–687	21,754	21,200	–733	20,467
Unwinding of discount	35	–1	34	33	–1	32
Less payments						
For the year under review	–5,618	151	–5,468	–5,207	188	–5,019
For previous years	–11,237	493	–10,744	–11,969	426	–11,543
Total payments	–16,855	643	–16,212	–17,176	614	–16,563
Balance at 31 Dec. financial year	**67,061**	**–2,810**	**64,251**	**58,848**	**–2,634**	**56,214**

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 –€127m (0m) is recognised under “Changes in consolidated group/Other”. The increase in the provision for outstanding claims resulted from losses caused by natural catastrophes and COVID-19. With regard to taking into account the effects resulting from climate change, please refer to the section “Climate risks” of the risk report in the combined management report.

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.

Below, we present the net run-off results in the property-casualty segment. 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	≤ 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
2011	13,616											
2012	8,193	5,616										
2013	4,195	2,918	5,493									
2014	3,574	1,395	3,181	5,209								
2015	2,346	448	1,214	2,812	4,889							
2016	2,344	345	674	1,453	2,652	5,149						
2017	717	191	456	660	1,312	2,562	4,835					
2018	968	215	282	374	776	1,659	4,185	5,394				
2019	949	136	167	234	402	802	1,917	4,551	4,650			
2020	726	168	172	304	486	493	1,386	2,456	5,260	5,033		
2021	456	95	152	199	418	365	610	1,129	2,375	5,165	5,478	16,442

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

€m	Accident year											
Date	≤ 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
31 Dec. 2011	44,395											
31 Dec. 2012	35,040	8,706										
31 Dec. 2013	30,153	5,559	8,680									
31 Dec. 2014	25,283	3,968	5,726	8,863								
31 Dec. 2015	21,681	3,312	4,473	6,095	8,477							
31 Dec. 2016	18,310	2,922	3,507	4,625	5,880	9,125						
31 Dec. 2017	17,259	2,637	2,979	3,755	4,355	6,387	12,558					
31 Dec. 2018	15,118	2,163	2,403	3,116	3,370	4,773	8,381	12,178				
31 Dec. 2019	12,682	1,795	2,083	2,695	2,820	3,788	6,342	8,460	13,870			
31 Dec. 2020	11,091	1,430	1,538	2,176	2,223	2,938	4,867	6,360	9,130	16,716		
31 Dec. 2021	10,021	1,222	1,275	1,689	1,646	2,456	3,974	5,128	6,872	11,857	18,116	64,256

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

€m	Accident year											
Date	≤ 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
31 Dec. 2011	58,011											
31 Dec. 2012	56,849	14,322										
31 Dec. 2013	56,157	14,093	14,173									
31 Dec. 2014	54,861	13,897	14,400	14,072								
31 Dec. 2015	53,605	13,689	14,361	14,116	13,366							
31 Dec. 2016	52,577	13,644	14,069	14,099	13,421	14,274						
31 Dec. 2017	52,244	13,551	13,996	13,889	13,208	14,098	17,394					
31 Dec. 2018	51,071	13,292	13,702	13,623	12,999	14,144	17,402	17,572				
31 Dec. 2019	49,584	13,060	13,550	13,437	12,851	13,961	17,279	18,405	18,520			
31 Dec. 2020	48,719	12,863	13,177	13,221	12,740	13,603	17,190	18,761	19,041	21,749		
31 Dec. 2021	48,105	12,750	13,066	12,934	12,580	13,486	16,907	18,658	19,157	22,054	23,594	213,293
Net run-off result	9,907	1,572	1,106	1,138	785	788	486	–1,086	–637	–306	n/a	13,755
Change 2020 to 2021	614	113	111	288	159	117	283	102	–116	–306	n/a	1,366

The ultimate loss of an accident year comprises all payments made for that accident year up to the reporting date, plus the claims reserve at the reporting date. Given complete information regarding all losses incurred up to the end of the reporting period, the ultimate-loss status for each accident-year period would remain the same. In practice, however, the ultimate-loss status (based on estimates) is exposed to fluctuations that reflect the growth in knowledge about the claims cases. Changes in the consolidated group, especially new acquisitions or the composition of reportable segments, can also have an influence on the ultimate-loss status.

The run-off triangles are prepared on a currency-adjusted basis. For this purpose, all figures are translated from the respective local currency into the Group currency (euro) based on year-end exchange rates. This ensures that currency translation does not lead to run-off effects.

23 Other technical provisions

Breakdown of other technical provisions

€m	31.12.2021	Prev. year
Provision for premium refunds based on national regulations	9,946	9,311
Provision for deferred premium refunds	10,827	12,376
Thereof resulting from unrealised gains and losses on investments (recognised directly in equity)	5,361	6,998
Thereof resulting from other remeasurements (recognised in profit or loss)	5,466	5,379
Provision for profit commissions	475	623
Other	166	168
Total (gross)	**21,414**	**22,478**

Of the provision for premium refunds based on national regulations, €80m (79m) is apportionable to property-casualty insurance. The provision for deferred premium refunds is established solely for life and health insurance.

The ceded share of "Other technical provisions" amounts to €40m (67m), of which €0m (1m) 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	2021	Prev. year
Status at 31 Dec. previous year	9,311	9,312
Changes in consolidated group	1	0
Allocation/Withdrawal	635	–1
Status at 31 Dec. financial year	**9,946**	**9,311**

Development of provision for deferred premium refunds

€m	2021	Prev. year
Status at 31 Dec. previous year	12,376	10,957
Changes in consolidated group	26	0
Change resulting from unrealised gains and losses on investments (recognised directly in equity)	–1,637	829
Change resulting from other remeasurements (recognised in profit or loss)	61	590
Status at 31 Dec. financial year	**10,827**	**12,376**

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	2021	Prev. year
Balance at 31 Dec. previous year	7,955	8,172
Changes in consolidated group/Other	–49	–21
Savings premiums	631	473
Unrealised gains/losses on fund assets	973	41
Withdrawal for expenses and risk	–31	–34
Withdrawal for benefits	–481	–676
Balance at 31 Dec. financial year	**8,998**	**7,955**

These provisions are measured retrospectively. The withdrawal for underwriting risks from the premiums and provision for future policy benefits is made on the basis of prudent assumptions regarding expected mortality and morbidity. Here, as with the provision for future policy benefits for non-unit-linked life insurance, we base the underlying calculation on best estimates, with appropriate provisions for adverse deviation.

The provisions are directly covered by the investments for unit-linked life insurance contracts. Small differences in relation to these investments arise as a result of including unearned revenue liability in these provisions.

25 Other provisions

Breakdown of other provisions

€m	31.12.2021	Prev. year
Provisions for post-employment benefits	3,617	4,121
Other provisions	1,341	1,317
Total	**4,958**	**5,438**

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 totalled €74m (65m) in the financial year, and expenses for contributions to state plans amounted to €116m (114m).

The present value of obligations under defined benefit pension plans amounted to €6,873m (7,742m), and the plan assets to be deducted totalled €3,735m (4,067m). Defined benefit plans comprise the following main plans:

Munich Reinsurance Company's pension obligations account for €1,756m (1,927m) of the present value of obligations under defined benefit pension plans and €2,015m (2,174m) of plan assets. The obligations include disability and old-age pensions, and pensions for surviving dependants. The amount of the pensions generally depends on salary and length of service. The defined benefits granted up to 31 December 2007 are financed through a fund. New members on or after 1 January 2008 receive pension commitments in the form of defined contribution plans financed by means of insurance contracts securing the obligations under pension schemes. The fund and insurance contracts have been grouped in a contractual trust agreement (CTA).

ERGO Group's pension obligations account for €3,499m (4,193m) of the present value of obligations under defined benefit pension plans and €292m (553m) of plan assets. Both figures were reduced as a result of IFRS 5 reclassification. 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 €743m (746m) of the present value of obligations under defined benefit plans, and €595m (576m) 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	2021	Prev. year
Status at 31 Dec. previous year	7,742	7,067
Currency translation differences	116	–109
Changes in consolidated group	0	–1
Current service cost	170	162
Past service cost	8	5
Gains and losses from plan settlements	0	0
Contributions by plan participants	3	3
Interest expense	44	79
Payments	–162	–165
Payments from plan settlements	–1	–3
Transfer of obligations	0	–15
Actuarial gains/losses: Change in demographic assumptions	–4	–11
Actuarial gains/losses: Change in financial assumptions	–770	732
Actuarial gains/losses: Experience adjustments	–19	0
Other	1	–1
Reclassification IFRS 5	–255	0
Status at 31 Dec. financial year	**6,873**	**7,742**

The present value of medical-care benefit obligations amounted to €325m (363m) at the end of the reporting period.

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

Breakdown of the present value of defined benefit obligations

%	31.12.2021	Prev. year
Active members	48	49
Deferred members	15	17
Pensioners	37	34
Total	**100**	**100**

Pension obligations are measured using assumptions about future developments. The consolidated companies used the following actuarial assumptions (weighted-average values):

Actuarial assumptions

%	2021	Prev. year
Discount rate	1.1	0.6
Future increases in entitlement/salary	1.8	1.8
Future pension increases	1.4	1.3
Medical cost trend rate	3.4	3.3

In the eurozone, the actuarial interest rate was 0.75% (0.20%) as at 31 December 2021. The actuarial gains from changes in financial assumptions amounting to €687m (previous year: losses of €576m) primarily arose from the increase in the actuarial interest rate.

Munich Re uses generally recognised biometric actuarial assumptions, adjusted as a rule to take account of company-specific circumstances. The average remaining life expectancy of a 65-year-old plan participant is 23.8 years for women and 22.7 years for men.

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

€m	2021	Prev. year
Balance at 31 Dec. previous year	4,067	3,746
Currency translation differences	97	-88
Changes in consolidated group	0	–1
Interest income	32	50
Return excluding interest income	-32	386
Contributions by the employer	67	71
Contributions by plan participants	1	1
Payments	-249	-80
Payments from plan settlements	0	-1
Transfer of assets	0	-15
Other	-1	-2
Reclassification IFRS 5	-247	0
Balance at 31 Dec. financial year	**3,735**	**4,067**

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

%	31.12.2021	Prev. year
Quoted market price in an active market		
Fixed-interest securities	40	40
Non-fixed-interest securities	24	21
Equities	3	4
Investment funds	21	17
Other	0	0
Other	0	1
No quoted market price in an active market		
Cash or cash equivalents	1	1
Real estate	1	0
Fixed-interest securities	0	0
Non-fixed-interest securities	3	2
Equities	0	0
Investment funds	3	2
Other	0	0
Insurance contracts	30	34
Other	1	1

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

For the 2022 financial year, capital transfers of €67m (83m) to plan assets are expected.

Development of the reimbursement rights for defined benefit plans

€m	2021	Prev. year
Balance at 31 Dec. previous year	404	357
Changes in consolidated group	0	0
Interest income	1	3
Return excluding interest income	-33	34
Contributions by the employer	19	19
Contributions by plan participants	0	0
Payments	-9	-8
Transfer of assets	0	0
Other	0	0
Balance at 31 Dec. financial year	**382**	**404**

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

There was an effect of €16m (15m) resulting from the asset ceiling on overfunded defined benefit plans.

Funded status of defined benefit plans

€m	31.12.2021	Prev. year
Obligations funded through provisions		
Present value of defined benefit obligations	3,318	3,619
Other	0	0
Reclassification IFRS 5	0	0
Net balance sheet liability	3,318	3,619
Obligations funded through plan assets		
Present value of defined benefit obligations	3,809	4,123
Plan assets	-3,982	-4,067
Assets from the defined benefit plan	463	430
Effect of asset ceiling	16	15
Other	1	0
Reclassification IFRS 5	-9	0
Net balance sheet liability	298	502
Obligations independent of funded obligations		
Present value of defined benefit obligations	7,128	7,742
Plan assets	-3,982	-4,067
Assets from the defined benefit plan	463	430
Effect of asset ceiling	16	15
Other	1	0
Reclassification IFRS 5	-9	0
Net balance sheet liability	**3,617**	**4,121**

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	2021	Prev. year
Balance at 31 Dec. previous year	4,121	3,748
Currency translation differences	25	-26
Changes in consolidated group	0	0
Expenses	195	198
Payments	87	-84
Payments from plan settlements	-1	-1
Capital transfer to plan assets	-69	-72
Transfer of assets	0	0
Transfer to other receivables	28	22
Actuarial gains/losses recognised in equity	-727	301
Other	-32	36
Reclassification IFRS 5	-9	0
Balance at 31 Dec. financial year	**3,617**	**4,121**

Breakdown of expenses booked in the financial year

€m	2021	Prev. year
Net interest cost	12	27
Service cost	181	169
Other	2	1
Total	**195**	**198**

The expenses are distributed between the functional areas and shown mainly under “Operating expenses” and “Expenses for claims and benefits” in the consolidated income statement.

The actual return on plan assets amounted to €0m (436m), and the actual losses on reimbursements to €32m (previous year: gains of €36m).

Contractual period to maturity of pension obligations

€m	31.12.2021	Prev. year
Up to one year	185	171
Over one year and up to five years	812	761
Over five years and up to ten years	1,143	1,061
Over ten years and up to twenty years	2,536	2,439
Over twenty years	4,882	5,022
Total	**9,559**	**9,455**

The weighted average contractual period to maturity of our pension obligations is 19 (21) 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	31.12.2021	Prev. year
Increase in actuarial discount rate by 50 BP	-635	-753
Decrease in actuarial discount rate by 50 BP	730	875
Increase in salary/entitlement trends by 10 BP	23	34
Decrease in salary/entitlement trends by 10 BP	-21	-30
Increase in pension trends by 10 BP	70	83
Decrease in pension trends by 10 BP	-68	-80
Increase in medical cost trend rate by 100 BP	55	65
Decrease in medical cost trend rate by 100 BP	-46	-54
Increase in mortality rate by 10%	-217	-253
Decrease in mortality rate by 10%	233	273

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	31.12.2021
Restructuring	296	51	–61	–85	1	202
Commissions	201	2,190	–2,173	–3	–3	212
Multi-year variable compensation	95	23	–15	–29	3	77
Early retirement benefits/semi-retirement	152	14	–24	0	–2	140
Salary obligations and other remuneration for desk and field staff	36	82	–28	–3	0	87
Anniversary benefits	110	2	–5	0	–1	106
Miscellaneous	426	342	–164	–94	6	516
Total	**1,317**	**2,704**	**–2,470**	**–214**	**4**	**1,341**

The provisions for restructuring mainly included €47m (70m) for the comprehensive restructuring of the ERGO sales organisations, and €151m (212m) for the “ERGO Strategy Programme”. The provision for multi-year variable remuneration includes components for multi-year performance and for the incentive plans. The “Miscellaneous” provisions comprise a large number of different items. The provisions for restructuring, early-retirement benefits/semi-retirement, anniversary benefits, multi-year performance and incentive plans are mainly long term, whereas the provisions for commissions, salary obligations, 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	31.12.2021	Prev. year
Munich Re America Corporation, Wilmington, 7.45%, US$ 334m, Senior Notes 1996/2026	a	A+	A2	A–	293	272
Total					**293**	**272**

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 amounted to €370m (374m).

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[1]

€m	31.12.2021	Prev. Year
Amounts payable on primary insurance business	2,630	2,564
Accounts payable on reinsurance business	4,879	5,001
Amounts due to banks	1,016	1,022
Lease liabilities	433	402
Miscellaneous liabilities	17,111	15,906
Total	**26,069**	**24,895**

1 The previous year’s figures have been adjusted due to a change in recognition.

The amounts payable on primary insurance business mainly contain liabilities towards policyholders resulting from accumulated participation in surplus, premium deposits and primary insurance contracts with non-significant risk transfer. With effect from the reporting year, we recognise the latter under “Miscellaneous liabilities”; the corresponding amounts for the previous year totalling €401m were therefore reallocated. As the liabilities resulting from the reinsurers’ insurance contracts with non-significant risk transfer are already recognised in the miscellaneous liabilities, we have thus standardised the way this business is recognised.

For more information on the interest paid for liabilities from leases in the 2021 financial year, please refer to (36) Other operating result. See (29) Liabilities from financing activities for information on cash outflows for leases in 2021.

Of the amounts due to banks, €13m (63m) is attributable to bank borrowing by Group companies acquired by Munich Re under its infrastructure investment strategy. The fair value of the debts owed to credit institutions at the end of the reporting period amounted to €1,017m (1,028m).

The miscellaneous liabilities contain liabilities of €8,324m (6,827m) resulting from the reinsurers' insurance contracts with non-significant risk transfer, derivative financial instruments with a negative fair value of €1,173m (808m), and negative fair values totalling €2,284m (2,519m) for insurance-linked derivatives and hedging derivatives of variable annuities. The miscellaneous liabilities also include €23m (25m) for social security and €27m (19m) for interest and rent.

Of the liabilities resulting from the reinsurers' insurance contracts with non-significant risk transfer, €306m (762m) is shown on a net basis in the balance sheet; a total of €179m (154m) was recognised for derivatives with a negative market value.

The following table provides information on the contractual future cash outflows of the items shown under "Other liabilities". The amounts payable on primary insurance business are directly linked to the underlying insurance business, and therefore not taken into account here (see (39) Disclosures on risks from life and health insurance business).

Maturity analysis of future cash flows from other liabilities

€m	Non-derivative liabilities		Derivative liabilities	
	31.12.2021	Prev. year	31.12.2021	Prev. year
Up to one year	14,910	11,912	798	435
Over one year and up to two years	390	2,417	32	–17
Over two years and up to three years	1,927	347	19	26
Over three years and up to four years	103	1,187	28	8
Over four years and up to five years	1,225	854	28	62
Over five years and up to ten years	1,239	1,477	658	602
Over ten years	354	346	1,636	1,941
Total	**20,146**	**18,540**	**3,198**	**3,056**

Given that the majority of other liabilities have a period to maturity of less than one year, the fair values largely correspond to the carrying amounts. The miscellaneous liabilities include liabilities of €8,324m (6,827m) resulting from the reinsurers' insurance contracts with non-significant risk transfer. These usually have longer periods to maturity to match the cover and run-off periods of the underlying risks. Their fair value is €575m (7,609m). We allocate these to Level 3 of the fair value hierarchy, as their measurement is primarily based on biometric and lapse rates and historical event data.

For information on the offsetting of financial liabilities, please refer to (8) Other securities at fair value through profit or loss and insurance-related investments.

29 Liabilities from financing activities

The table shows the cash and non-cash changes in liabilities arising from financing activities between the beginning of the financial year and the balance sheet date. The cash changes are included in the consolidated cash flow statement as item III. Cash flows from financing activities.

Change in the liabilities from financing activities

	Short-term borrowings		Long-term borrowings		Lease liabilities		Liabilities from financing activities	
€m	2021	Prev. year	2021	Prev. year	2021	Prev. year	2021	Prev. year
Balance at 31 December previous year	1,022	557	5,320	4,136	402	374	6,743	5,067
Cash changes	-2	465	-211	1,042	-90	-82	-303	1,424
Non-cash changes								
Currency changes	38	-1	57	-57	14	-13	109	-71
Changes in the fair value	0	0	0	0	0	0	0	0
Changes in consolidated group/other	-41	0	182	199	107	124	249	323
Balance at 31 December financial year	**1,016**	**1,022**	**5,348**	**5,320**	**433**	**402**	**6,797**	**6,743**

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

Notes to the consolidated income statement

30 Premiums

Premiums

€m	2021	Prev. year
Total gross premiums	60,521	55,769
Gross premiums written	59,567	54,890
Change in gross unearned premiums	-1,970	-1,102
Gross earned premiums	**57,597**	**53,788**
Ceded premiums written	-2,450	-2,550
Change in unearned premiums – Ceded share	55	-16
Earned premiums ceded	**-2,396**	**-2,566**
Net earned premiums	**55,202**	**51,223**

The total gross premiums include not only the gross premiums written but also savings premiums from unit-linked life insurance and capitalisation products.

Premiums from long-term insurance business, especially in life primary insurance, are recognised in full as earned premiums and income when they become due. Under gross premiums written, only those parts of the premium from unit-linked life business are included that are used to cover the risks and associated costs.

Of the gross premiums written from short-term insurance business, the portions attributable to periods after the end of the reporting period are posted as unearned premiums; cf. (20) Unearned premiums. Over the duration of the contracts, unearned premiums are reversed in accordance with the reduction in risk.

Revenues within the meaning of IFRS 15, Revenue from Contracts with Customers, essentially derive from technical engineering and inspection services, investment management services, and from services in connection with the generation of electricity from renewable energy sources and with the provision of insurance-related software. The income from these services is largely recognised for the period in question. The volume of this revenue under IFRS 15 is around 1% of gross premiums written.

31 Income from technical interest

The income from technical interest is the amount earned by assumed insurance business from the mainly risk-free investment of assets covering the technical provisions.

The deposits retained on ceded business are also taken into account as a basis for the technical interest. Thus the portion of investment income corresponding to the deposit interest expense is included as a component in the calculation of the technical interest and reallocated to the technical result.

Quantitative information on technical interest can be found in the segment income statement.

In terms of the assets required to cover the technical provisions, the composition of the technical interest varies from segment to segment, depending on the type of insurance business conducted and the related statutory regulations.

In the life and health reinsurance segment, the income from technical interest in life reinsurance business corresponds to the risk-free interest on our technical provisions. For deposited provisions, income from technical interest corresponds to the agreed interest rate. In health reinsurance business, the interest on long-term reinsurance treaties corresponds to the contractually agreed allocations of interest. For short-term reinsurance business, the income from technical interest is calculated on the basis of the risk-free interest on technical provisions at the relevant national interest rate.

In property-casualty reinsurance, we allow for the fact that provisions established in prior years were invested at higher interest rates than the current level of market interest rates. The income from technical interest therefore corresponds to the risk-free interest on our discounted technical provisions at the respective historical interest rate, taking into account the relevant period of insurance and currency. Short-term interest rates are applied to the difference between the discounted provisions and balance sheet provisions.

In the ERGO Life and Health Germany segment, the income from technical interest for life primary insurance companies comprises the gains and losses from unit-linked life insurance, plus the guaranteed interest rate and profit sharing on the basis of the non-technical result sources. For health primary insurance companies, the income from technical interest corresponds to the allocation of interest to the ageing reserve (actuarial interest) and the allocation to the provision for premium refunds. The latter is based on the allocation of interest to the provision for non-performance-related premium refunds, on the investment result exceeding the actuarial interest rate, and on policyholders' participation in the other non-technical result components.

In the ERGO Property-casualty Germany segment, the income from technical interest is calculated analogously to the procedure in the property-casualty reinsurance segment.

In the ERGO International segment, the income from technical interest for life primary insurance companies corresponds to the risk-free interest on the provision for future policy benefits at the relevant national interest rate, the gains and losses from unit-linked life insurance, and profit sharing where there are types of contract providing for this. The income from technical interest for property-casualty primary insurance companies is calculated analogously to the procedure in the property-casualty reinsurance segment.

The income from technical interest for health primary insurance business is based on the interest on other technical provisions at the relevant national risk-free interest rate and, where applicable, on the interest allocated to the provision for future policy benefits.

32 Expenses for claims and benefits

Expenses for claims and benefits

€m	2021	Prev. year
Gross		
Claims and benefits paid	-37,629	-37,319
Change in technical provisions		
Provision for future policy benefits	-1,448	-331
Provision for outstanding claims	-5,977	-5,174
Provision for premium refunds	-1,807	-1,681
Other technical result	-95	-129
Gross expenses for claims and benefits	**-46,957**	**-44,635**
Ceded share		
Claims and benefits paid	1,075	998
Change in technical provisions		
Provision for future policy benefits	523	500
Provision for outstanding claims	17	93
Provision for premium refunds	-1	0
Other technical result	-41	-34
Expenses for claims and benefits – Ceded share	**1,574**	**1,558**
Net		
Claims and benefits paid	-36,554	-36,321
Change in technical provisions		
Provision for future policy benefits	-925	169
Provision for outstanding claims	-5,960	-5,081
Provision for premium refunds	-1,808	-1,681
Other technical result	-136	-162
Net expenses for claims and benefits	**-45,383**	**-43,077**

In reinsurance, the year was impacted by natural catastrophe losses totalling €1.2bn from Hurricane Ida and €0.5bn from Storm Bernd. In addition, a winter storm in the USA, above all in Texas, caused losses in the mid-triple-digit million euro range. COVID-19-related reinsurance losses amounted to €997m (3,436m). Overall, COVID-19 losses totalled €212m, down from slightly over €3bn in 2020, thanks to significantly reduced claims expenditure in property-casualty reinsurance. A temporary period of excess mortality related to COVID-19 was responsible for increased expenditure of €785m (370m) in life and health reinsurance. At ERGO, COVID-19 had a lowering effect on expenses for claims and benefits owing to the lockdown and lower losses in travel and motor insurance. In addition, Storm Bernd also caused loss expenditure at ERGO.

The change in the provision for future policy benefits (net) contains €973m (41m) in unrealised gains/losses from unit-linked life insurance. The change in the provision for outstanding claims includes a change of €3,441m (3,665m) in the IBNR provisions (gross), a change of €2,441m (1,080m) in the case reserve (gross), and a change of €88m (430m) in the annuity claims provision (gross). Expenses for claims and benefits include expenses for policyholders' bonuses. Of this, €1,110m (735m) is for the allocation to the provision for premium refunds on the basis of national regulations, €88m (590m) for the change in the provision for deferred premium refunds recognised in the income statement, and €260m (62m) 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	2021	Prev. year
Gross		
Acquisition costs, profit commission and reinsurance commission paid	-11,937	-10,697
Administrative expenses	-3,003	-2,841
Change in deferred acquisition costs and contingent commissions, amortisation and impairment losses on acquired insurance portfolios	828	159
Gross operating expenses	**-14,111**	**-13,379**
Ceded share		
Acquisition costs, profit commission and reinsurance commission paid	526	677
Change in deferred acquisition costs and contingent commissions	-90	-113
Operating expenses – Ceded share	**437**	**564**
Net operating expenses	**-13,674**	**-12,815**

Gross operating expenses increased to €14,111m (13,379m); net operating expenses increased to €13,674m (12,815m). The combined ratio, which is calculated as the percentage ratio of the sum of net expenses for claims and benefits plus net operating expenses to net earned premiums, came to 99.6% (105.6%) in the property-casualty reinsurance segment, 92.4% (92.4%) in the ERGO Property-casualty Germany segment, and 92.9% (92.7%) in the ERGO International segment.

34 Investment result

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

€m	2021	Prev. year
Land and buildings, including buildings on third-party land	**575**	**807**
Investments in affiliated companies	**-27**	**-49**
Investments in associates and joint ventures	**221**	**157**
Loans	**2,077**	**2,240**
Other securities available for sale		
Fixed-interest	3,384	4,281
Non-fixed-interest	1,942	62
Other securities at fair value through profit or loss		
Held for trading		
Fixed-interest	0	0
Non-fixed-interest	7	7
Derivatives	-687	172
Designated at fair value through profit or loss		
Fixed-interest	14	18
Non-fixed-interest	29	14
Deposits retained on assumed reinsurance, and other investments	**276**	**288**
Expenses for the management of investments, other expenses	**-656**	**-597**
Total	**7,156**	**7,398**

The result for land and buildings includes rental income of €557m (563m). The expenses for the management of investments include running costs and expenses for repair and maintenance of property totalling €75m (64m). We earned interest income of €1,598m (1,708m) on loans. Other securities available for sale produced regular income of €3,446m (3,407m), while derivatives generated €107m (128m). Interest expenses on non-derivative investments amounted to €19m (15m), administrative expenses to €417m (385m), and other expenses to €164m (148m).

Write-downs of non-derivative investments

€m	2021	Prev. year
Land and buildings, including buildings on third-party land	-148	-178
Investments in affiliated companies	-14	-34
Investments in associates and joint ventures	-57	-3
Loans	-41	-1
Other securities available for sale	-383	-1,788
Other securities at fair value through profit or loss	-28	-101
Other investments	-39	-64
Total	**-711**	**-2,169**

35 Insurance-related investment result

Insurance-related investment result

€m	2021	Prev. year
Result from investments for unit-linked life insurance contracts	989	62
Result from other insurance-related investments	130	43
Total	**1,119**	**105**

36 Other operating result

Other operating result

€m	2021	Prev. year
Other operating income	1,203	1,168
Thereof:		
Interest and similar income	258	229
Write-ups of other operating assets	40	95
Other operating expenses	–2,106	–2,016
Thereof:		
Interest and similar charges	–147	–128
Write-downs of other operating assets	–66	–53

Other operating income mainly comprises income of €625m (634m) from services rendered, interest income of €58m (79m), income of €158m (187m) from the release/ reduction of the provisions grouped under "Miscellaneous" and provisions for bad and doubtful debts, and income of €64m (32m) from owner-occupied property, some of which is also leased out.

Other operating expenses include expenses of €537m (612m) for services rendered and interest charges of €133m (116m), thereof €8m (8m) from leases. In addition, they mainly include other write-downs of €58m (43m), as well as other tax of €132m (124m) and expenses of €30m (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 the reinsurers' insurance contracts with non-significant risk transfer totalling €169m (137m), which almost fully derived 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	2021	Prev. year
Other non-operating result	–91	–83
Currency result	262	–200
Net finance costs	–205	–223

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 −€16m (28m), write-downs of €32m (59m) on other intangible assets, and restructuring expenses of €57m (51m).

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	2021	Prev. year
Subordinated bonds of Munich Reinsurance Company, Munich	–180	–197
Senior notes of Munich Re America Corporation, Wilmington	–21	–22
Subordinated bonds of HSB Group Inc., Delaware	–2	–3
Other	0	–1
Total	**–205**	**–223**

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	2021	Prev. year
Current tax for financial year	-1,428	-707
Current tax for other periods	-64	373
Deferred tax resulting from the occurrence or reversal of temporary differences	1,050	87
Deferred tax resulting from the occurrence or utilisation of loss carry-forwards	-286	-77
Valuation allowances for deferred taxes/loss carry-forwards	183	57
Effects of changes in tax rates on deferred tax	-7	-2
Taxes on income	**-552**	**-269**

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	2021	Prev. year
Result before taxes on income (after "other tax")	3,485	1,480
Group tax rate in %	33	33
Derived taxes on income	-1,150	-489
Tax effect of:		
Tax rate differences	253	31
Tax-free income	422	-82
Non-deductible expenses	-184	-121
Valuation allowances for deferred taxes/loss carry-forwards	183	57
Change in tax rates and tax legislation	-7	-2
Tax for prior years	20	394
Trade tax adjustments	2	32
Other	-91	-89
Taxes on income shown	**-552**	**-269**

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 2021 financial year, the tax burden was 15.9% (previous year: 18.2%).

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 risk report in the combined management report on the basis of Section 315 (2) no. 1 of the German Commercial Code (HGB) and German Accounting Standard no. 20 (DRS 20) for management reports.

Since risk reporting concerns not only accounting but also the activities of integrated risk management (IRM) at Munich Re, information on risks is provided in the risk report, in the disclosures on risks from insurance contracts and financial instruments, and in the disclosures on technical provisions and financial instruments in the Notes to the financial statements. Where necessary, we refer to the relevant information in the risk report and information on the respective items.

The disclosures in the risk report largely adopt a purely economic view. The report provides an account of the organisation of risk management and Munich Re's risk strategy, briefly outlines the main risks we are exposed to, and describes the economic risk capital calculated by means of our internal risk model. The report also contains information on specific risk complexes.

The provision – stipulated by the requirements of IFRS 4 – of quantitative data on the effects of changes in the assumptions underlying the measurement of insurance contracts and/or in the market environment is also covered by information about economic risk capital stated in the risk report.

In the Notes to the financial statements, we describe in detail uncertainties involved in measuring insurance contracts. For risks from financial instruments, IFRS 7 stipulates that the disclosures must comprise information on the remaining terms and the rating.

39 Disclosures on risks from life and health insurance business

Significant risks from life and health insurance business comprise underwriting risks, market risks and liquidity risks. These risks are described in detail in the risk report in the combined management report.

Of particular importance for the **underwriting risks** are biometric risks and lapse risks. Biometric risks mainly relate to mortality, disability, morbidity and longevity. The biometric assumptions we use for measuring insurance contracts in our portfolios are regularly reviewed on the basis of updated portfolio information. Especially in primary insurance, this includes considering country-specific reviews by supervisory authorities. We also take account of market standards when checking the adequacy of biometric actuarial assumptions and the trend assumptions included in them. In reinsurance, a lapse risk also derives from the indirect transfer of lapse risks from cedants. As a rule, both this risk and the financial risk from extraordinary termination of reinsurance contracts are largely ruled out through appropriate contract design. The lapse risk in primary insurance is allowed for by means of appropriate liquidity planning and adequate calculation of the surrender value.

Our main **market risk** exposure with regard to our technical provisions is interest-rate risk. A distinction must be made between risks of changes in interest rates on the one hand and interest-rate guarantee risks on the other. Risks of changes in interest rates would result from the discounting of the provision for future policy benefits and of parts of the provision for outstanding claims. In accordance with accounting valuation rules, the discount rate is fixed at contract commencement and will generally not be adjusted during the term of the contract. To this extent, the accounting valuation of these technical provisions does not depend directly on the level of the market interest rates. Economically, however, an interest-rate risk derives in principle from the need to earn a return on the investments covering the provision that is commensurate with the discount rate used in measuring the provision.

In reinsurance, we use the following discount rates for the provision for future policy benefits and the provision for outstanding claims:

Discount rates used for provisions – Reinsurance (gross)

€m	31.12.2021	Prev. year
Without discount rate	5,055	4,298
Discount rate ≤ 2.0%	1,535	1,195
2.0% < discount rate ≤ 3.0%	3,710	2,948
3.0% < discount rate ≤ 4.0%	3,886	4,055
4.0% < discount rate ≤ 5.0%	2,933	2,866
5.0% < discount rate ≤ 6.0%	1,554	1,462
6.0% < discount rate ≤ 7.0%	94	94
7.0% < discount rate ≤ 8.0%	479	423
Discount rate > 8.0%	250	230
Covered by deposits retained on assumed reinsurance	4,967	4,839
Total	**24,464**	**22,409**

If provisions are covered by deposits retained on assumed reinsurance, the interest is directly secured by an inflow of investment income generally guaranteed by the cedants. Consequently, for provisions for which at least the discount rate is guaranteed by the cedants, there is no interest-rate risk.

In life primary insurance, an implicit or explicit interest-rate guarantee is granted for the majority of contracts over their whole duration, based on a fixed interest rate applying at the time the contract is concluded. This exposes the insurance to an interest-guarantee risk. The discount rate used to calculate the provision for future policy benefits is identical with the guaranteed interest rate for the majority of contracts in our portfolios. An appropriate minimum return needs to be earned in the long term from the investment result (possibly also with assistance from the technical result) for the contractually guaranteed benefits. Given that the investments, as a rule, have a shorter duration than the insurance commitments, there is a reinvestment risk. As regards premiums yet to be received, the investment of these amounts involves a certain amount of risk. We counter these risks using our asset-liability management.

The current sustained period of low interest rates is a strain for life primary insurers whose portfolio includes classical guaranteed products. Our life primary insurers address the risks arising from such a phase of low interest rates by pursuing an investment strategy that is geared to the long term and also comprises derivative financial instruments. Furthermore, they take account of these special capital market conditions in their asset-liability management. The additional interest reserve that has already been built up is another tool for ensuring that the interest liabilities assumed are met during low-interest-rate periods, and it has a risk-mitigating effect.

In long-term health primary insurance, a discount rate is also used for calculating the provision for future policy benefits. However, this rate can generally be altered by way of premium adjustment. For short-term business, there is no direct interest-rate risk.

At ERGO, the discount rates relevant for the portfolio in calculating the provision for future policy benefits and the provision for outstanding claims are as follows:

Discount rates used for provisions – ERGO (gross)

	Life		Health		Total	
€m	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year
Without discount rate	4,244	4,205	1,653	1,753	5,897	5,959
Discount rate ≤ 2.0%	7,772	7,252	5,430	2,304	13,202	9,556
2.0% < discount rate ≤ 3.0%	21,154	21,517	15,706	16,260	36,859	37,777
3.0% < discount rate ≤ 4.0%	29,214	30,109	15,330	15,144	44,544	45,253
4.0% < discount rate ≤ 5.0%	776	827	2,255	3,615	3,032	4,442
Discount rate > 5.0%	0	2	0	0	0	2
Total	**63,160**	**63,912**	**40,374**	**39,076**	**103,534**	**102,988**

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 €5,967m (5,819m). These discount rates can be altered in the event of a premium adjustment.

Other market risks are of particular importance to unit-linked life insurance policies, the lump-sum option in the case of deferred annuity policies and derivatives embedded in variable annuities.

For the unit-linked life insurance contracts in our portfolio, the investments are held for the benefit of life insurance policyholders who bear the investment risk, meaning that there is no direct market risk. Appropriate product design ensures that the necessary premium portions for payment of a guaranteed minimum benefit on occurrence of death are based on the current fund assets.

The lump-sum option in the case of deferred annuity policies gives policyholders the option of having their annuity paid out in a single payment at a fixed date. As a result, there is a potential risk of an unexpectedly large number of policyholders exercising their option at an interest-rate level markedly higher than the discount rate used for the annuity calculation. But there is no direct interest-rate sensitivity or market sensitivity, since the exercise of the option by the policyholder is determined to a crucial extent by individual factors and relates to the insurance components.

Some primary insurance and reinsurance contracts contain derivative components of variable annuities. These are measured separately from the underlying contract and their changes in value are recognised in the insurance-related investment result. The valuation of these embedded derivatives is sensitive to share prices, exchange rates, commodity prices and interest rates, but these sensitivities are nearly fully compensated for by the fact that such derivatives are for the most part directly matched by financial derivatives for hedging purposes.

For Munich Re, there could be a **liquidity risk** if the cash outflow for insurance claims payments and the costs related to the business were to exceed the cash inflow from premiums and investments. For our mainly long-term business, we therefore analyse the expected future balance from cash inflows due to premium payments and outflows for payment of insurance claims and benefits plus costs.

At the balance sheet date, this results in the expected future technical payment balances (including variable annuities) shown in the following table according to duration bands. As only the technical payment flows are considered, inflows from investment income and investments that become free are not included in the quantifications.

Expected future technical cash flow (gross)[1]

€m	31.12.2021	Prev. year
Up to one year	-2,587	-1,048
Over one year and up to five years	-9,037	-9,039
Over five years and up to ten years	-15,543	-15,270
Over ten years and up to 20 years	-32,302	-32,360
Over 20 years	-87,765	-91,952

1 Premiums less benefits guaranteed at the balance sheet date and costs (excluding unit-linked products).

With these numerical estimates, it should be borne in mind that this forward-looking data may involve considerable uncertainty.

40 Disclosures on risks from property-casualty insurance business

Of particular importance for property-casualty insurance contracts is the estimation risk with regard to the amount of the expected claims expenditure for future claims from current insurance contracts (premium risk) and for claims already incurred (reserve risk). There is an interest-rate risk for parts of the portfolio. Liquidity risk also has to be taken into account.

The degree of exposure to **premium risks** differs according to class of business and also between primary insurance and reinsurance. On the basis of the loss ratios and combined ratios of past years shown in the following table, conclusions can be drawn about the historical volatilities in the different classes of business and about possible interdependencies. The differences in volatility are due equally to fluctuations in claims expenditure and fluctuations in the respective market-price level for the covers granted.

Premiums, loss ratios and combined ratios by class of business

	2021	2020	2019	2018	2017
Gross premiums written in €m					
Reinsurance					
Liability	5,337	4,473	3,703	3,384	3,013
Accident	359	306	416	372	393
Motor	6,135	5,268	5,291	5,367	3,978
Marine, aviation, space	2,094	1,899	1,617	1,388	1,268
Fire	6,871	5,962	5,064	4,761	4,308
Engineering	1,855	1,565	1,453	1,315	1,311
Credit and surety	946	849	787	657	634
Other classes of business	5,197	4,292	3,760	3,192	2,938
ERGO	7,285	6,747	6,771	6,694	6,531
Loss ratio in %					
Reinsurance					
Liability	78.4	87.6	64.8	71.3	84.8
Accident	65.3	76.8	68.0	10.4	58.0
Motor	66.7	67.8	67.6	71.4	77.0
Marine, aviation, space	54.4	55.4	80.6	40.8	50.3
Fire	67.0	63.3	73.6	69.9	109.5
Engineering	41.1	44.5	40.6	48.5	60.1
Credit and surety	32.0	69.1	20.7	46.0	59.7
Other classes of business	86.0	105.8	71.6	69.2	71.0
ERGO	59.1	59.4	58.6	58.7	59.8
Combined ratio in %					
Reinsurance					
Liability	109.8	119.3	100.5	105.7	119.3
Accident	105.2	112.8	106.9	51.0	94.2
Motor	100.9	98.4	100.3	103.3	107.9
Marine, aviation, space	84.7	86.1	115.0	75.1	81.8
Fire	91.8	87.8	99.1	98.5	137.8
Engineering	82.2	88.6	90.1	95.1	107.8
Credit and surety	66.0	106.6	63.7	89.0	101.8
Other classes of business	115.7	138.5	106.0	107.4	105.9
ERGO	92.4	93.0	93.3	95.2	96.0

In the pricing of risks assumed in the accident, fire and marine lines of business, and also in sections of engineering reinsurance and ERGO, there is a high degree of sensitivity regarding the underlying assumptions about natural catastrophes. The following table therefore shows the combined ratios for property-casualty reinsurance including and excluding natural catastrophe losses.

Combined ratio in reinsurance for the last ten years

%	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Including natural catastrophes	99.6	105.6	100.2	99.4	114.1	95.7	89.7	92.7	92.1	91.0
Excluding natural catastrophes	87.6	101.6	90.2	92.6	92.1	90.2	88.8	89.4	87.4	83.3

Major losses, by which we mean individual losses exceeding €10m, are of particular relevance for the volatility of property-casualty business in reinsurance. The analysis below shows that the volatility of the individual years in this loss category is mainly attributable to the respective intensity of natural catastrophe losses. As a rule, the other accumulation risks exhibit a distinctly less volatile pattern.

Large losses in reinsurance by calendar year (net)

€m	2021	2020	2019	2018	2017
Large losses	–4,304	–4,689	–3,124	–2,152	–4,314
Thereof losses from natural catastrophes	–3,139	–906	–2,053	–1,256	–3,678
Thereof other accumulation losses	–1,165	–3,784	–1,071	–896	–636

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

The provision for outstanding claims is subject to a **reserve risk**, i.e. the risk that actual claims settlement may be less than or exceed the amount reserved.

A particular sensitivity to reserve risks exists in the case of contracts with long run-off periods. This characteristic applies especially to casualty insurance, where liabilities may manifest themselves after a considerable latency period. Particularly with regard to asbestos insurance liabilities, we cover losses from policies taken out decades ago that manifest themselves after a latency period of as long as 30–50 years. In response, we have posted provisions for claims under long-cancelled general liability policies which provided coverage according to the legal environment applicable at that time.

Provisions for asbestos and environmental claims[1]

	31.12.2021		Prev. year	
€m	Gross	Net	Gross	Net
Asbestos	1,102	952	1,177	1,007
Environmental	396	323	413	338

1 The previous year's figures have been adjusted to eliminate currency translation effects.

The development of our claims reserves and the corresponding run-off results are shown under (22) Provision for outstanding claims.

Economically, an **interest-rate risk** derives from the need to earn a return on the investments covering the provision that is commensurate with the discount rate used in measuring the provision. In balance sheet terms, the interest-rate risk affects only those parts of the technical provisions that are discounted and for which an inflow of investment income from deposits retained is not secured from cedants in at least the same amount. For discounting technical provisions, we use the interest rates shown in the table below.

Discounted technical provisions by discount rate (gross)

	Reinsurance		ERGO		Total	
€m	31.12.2021	Prev. year	31.12.2021	Prev. year	31.12.2021	Prev. year
Discount rate ≤ 2.0%	44	44	485	617	529	662
2.0% < discount rate ≤ 3.0%	154	163	249	264	404	427
3.0% < discount rate ≤ 4.0%	44	47	355	372	399	419
4.0% < discount rate ≤ 5.0%	761	730	0	0	761	730
Discount rate > 5.0%	0	0	0	0	0	0
Total	**1,003**	**985**	**1,089**	**1,253**	**2,093**	**2,237**

The major part of the discounted provisions in reinsurance is for US workers' compensation business, for which the discount rates are governed by supervisory law and are determined prospectively per accident year. The discounting of the provisions in primary insurance is also largely governed by supervisory law.

For Munich Re, **liquidity risks** could arise if the cash outflow for insurance claims payments and the costs related to the business were to exceed the cash inflow from premiums and investments. The following table shows that in the past calendar years the liquidity situation in underwriting has always been positive. Besides this, we also have extensive, sufficiently liquid investments available to fulfil our liquidity obligations.

Payment flows and liquid funds in the individual calendar years (gross)

€m	2021	2020	2019	2018	2017
Premiums received	36,068	31,361	28,857	27,130	24,293
Claims payments for financial year	–5,727	–5,321	–5,091	–5,901	–5,360
Claims payments for previous years	–11,250	–12,007	–9,846	–8,873	–6,675
Costs	–11,031	–9,668	–9,511	–9,234	–8,093
Balance	**8,060**	**4,366**	**4,408**	**3,122**	**4,165**

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 at www.munichre.com/board-of-management and under (45) Remuneration of the Board of Management and Supervisory Board. Transactions between Munich Reinsurance Company and subsidiaries that are to be deemed related parties have been eliminated in consolidation and are not disclosed in the Notes. Business relations with unconsolidated subsidiaries are of subordinate importance as a whole; this also applies to business relations with associates and joint ventures.

Munich Reinsurance Company has established a contractual trust agreement in the form of a two-way trust for its unfunded company pension obligations. The Munich Re pension scheme is considered a related party in accordance with IAS 24. Contributions to the pension scheme are recognised as expenses for defined contribution plans (see (25) Other provisions).

For transactions of related parties with Munich Reinsurance Company shares, please refer to (17) Equity.

43 Personnel expenses

The following personnel expenses are included in the operating expenses, in the expenses for claims and benefits (for claims adjustment) and in the investment result:

Breakdown of personnel expenses

€m	2021	Prev. year
Wages and salaries	–2,947	–2,740
Social security contributions and employee assistance	–490	–514
Expenses for employees’ pensions	–276	–260
Total	**–3,713**	**–3,513**

44 Incentive plans

Mid-term incentive plans

In the financial years from 2009 to 2019, Munich Reinsurance Company set up mid-term incentive plans, each with a term of three years. Senior management in Munich are eligible for participation in these cash-settled remuneration plans. The participants receive performance share units (PSUs). In the fourth year after plan commencement, participants are entitled to a bonus payment dependent on the achievement of value-based performance targets and the increase in total shareholder return (TSR).

The value-based performance targets are set in the form of an average target to be achieved over the following three years of the plan and are allocated according to responsibilities.

The basis for the full and partial allocation of the PSUs is the first plan year.

The final number of PSUs is calculated by multiplying the number of PSUs at plan commencement by the percentage achievement of the performance target at plan termination. The number of PSUs may fluctuate between 0 and 1.5 times the initially allocated number. Payment is capped if the TSR doubles. The maximum amount payable is limited to 300%.

The mid-term incentive plan at the end of the reporting period is measured indirectly at the fair value of the liabilities. The fair value takes account of the value-based performance target and total shareholder return (TSR) during the performance period. To this end, the TSR index value observable in the market is updated with the current dividend yield of Munich Re shares at the termination date and discounted with appropriate market interest rates.

In the 2021 financial year, liabilities from the mid-term incentive plans decreased by €13m (17m). The beneficiaries’ entitlements amounted to €5m (33m) at the end of the reporting period.

Munich Re's mid-term incentive plans 2018–2019

	Incentive Plan 2018	Incentive Plan 2019
Plan commencement	1.1.2018	1.1.2019
Plan end	31.12.2020	31.12.2021
Fair value 2021 for one right	€0.00	€753.69
Number of rights (for 100% achievement of objectives) on 1 January 2018	0	0
Additions	27,872	0
Number of rights (for 100% achievement of objectives) on 31 December 2018	27,872	0
Number of rights (for 100% achievement of objectives) on 1 January 2019	27,872	0
Additions	0	26,651
Forfeited	104	0
Number of rights (for 100% achievement of objectives) on 31 December 2019	27,768	26,651
Number of rights (for 100% achievement of objectives) on 1 January 2020	27,768	26,651
Forfeited	137	494
Number of rights (for 100% achievement of objectives) on 31 December 2020	27,631	26,157
Number of rights (for 100% achievement of objectives) on 1 January 2021	27,631	26,157
Exercised	27,623	0
Additions	0	20
Forfeited	8	0
Number of rights (for 100% achievement of objectives) on 31 December 2021	0	26,177

Long-term incentive plans

Since 1 January 2020, the companies pertaining to the reinsurance field of business have set up long-term incentive plans. This remuneration component for senior management replaces the long-term remuneration plans previously in place in the respective companies, including the Munich Reinsurance Company mid-term incentive plan. Plans that are still active will end in accordance with the applicable plan conditions, or have been superseded. The standardised remuneration scheme behind these long-term incentive plans largely corresponds with that of the multi-year bonus of the members of the Board of Management, which is described in the remuneration report available at www.munichre.com/board-of-management.

45 Remuneration of the Board of Management and Supervisory Board

The members of Munich Reinsurance Company's Board of Management received remuneration totalling €28.0m (22.8m); this includes compensation in the amount of €2.4m (3.4m) paid to a member of the Board by an affiliated company for services performed there. The total remuneration of Munich Reinsurance Company's Supervisory Board amounted to €2.9m (3.1m); included in this figure is €0.1m (0.1m) for membership of supervisory boards at other Group companies.

Payments to retired members of the Board of Management or their surviving dependants totalled €11.8m (9.2m).

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. The amount of the liability was €155.0m (166.9m).

There are no pension commitments for former members of the Supervisory Board or their surviving dependants.

The members of the Supervisory Board and Board of Management did not receive any cash advances or loans in the year under review. For their service as employees of the Group, Supervisory Board members received remuneration in the amount of €1.2m (1.2m). Some Board members hold insurance policies with companies belonging to Munich Re, and have small MEAG fund holdings. There were no other significant transactions between Board members and Munich Re.

All other disclosures on the structure of the remuneration system and the remuneration report of the Board of Management and Supervisory Board are available at www.munichre.com/board-of-management and www.munichre.com/supervisory-board. Information on the share ownership of the members of the Board of Management can be found in the remuneration report and at www.munichre.com/board-of-management/shares-held.

46 Number of staff

The number of staff at year-end totalled 18,409 (18,636) in Germany and 20,872 (21,006) in other countries.

The figures include the number of staff at our consolidated subsidiaries.

Breakdown of number of staff

	31.12.2021	Prev. year
Reinsurance	13,771	12,659
ERGO	25,510	26,983
Total	**39,281**	**39,642**

47 Auditor's fees

For services rendered to the parent and consolidated subsidiaries by the Group auditor (Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft), the following fees – in line with IDW RS HFA 36 – were recognised as an expense in the financial year:

Breakdown of auditor's fees

€k	2021
Audit services	-11,474
Other assurance and appraisal services	-665
Tax consultancy services	0
Other services	-1,529
Total	**-13,668**

The auditor's fees mainly relate to the statutory audits of the consolidated financial statements and the annual financial statements of Munich Reinsurance Company; to various audits of our subsidiaries' annual financial statements, including statutory extensions of the audit assignment (in particular, the audit of the solvency balance sheet); and to audit services agreed with the Audit Committee. In addition, the following were carried out: reviews of interim financial statements and project-related IT audits, and contractual reviews of service providers' internal control systems.

Other assurance and appraisal services concern statutory, contractual or voluntary audit and consulting services, including services rendered to the statutory protection fund for life insurance and authorities outside Germany, as well as services in connection with the migration of a portfolio, the requirements of the General Data Protection Regulation and the confirmation of environmental KPIs. Additional services included the audit of the combined non-financial statement, the issuance of a comfort letter, and the audit of the Green Bond Allocation Report.

Other services essentially relate to quality assurance support in connection with the introduction of regulatory requirements, as well as process automation and data analytics; each service is based on solutions and concepts produced by us.

48 Contingent liabilities, other financial commitments

Munich Re enters into contingent liabilities in connection with its normal business operations. At the end of the reporting period, the obligations from guarantees were immaterial. The obligations from legal disputes totalled €22m (30m). There are other contingent liabilities amounting to €43m (57m).

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 disclosed unless the experts estimate that the possibility of an outflow of resources is remote.

ERGO companies have assumed unlimited liability for the sale of insurance products by insurance intermediaries acting exclusively on their behalf. In this respect, there is a risk of a claim being made by customers. In case of a claim, there is generally a possibility of recourse against the insurance intermediary or the latter's fidelity guarantee insurance carrier.

The application of fiscal regulations may yet be unresolved at the time of calculation of tax refund claims and tax liabilities. The calculation of tax items is based on the regulations most likely to be applied in each case. Regardless of this, the tax authorities may take a different view, which may give rise to additional tax liabilities.

In accordance with the German Insurance Supervision Act (VAG), all German life and health insurers of our Group are obliged to be members of a protection fund. For life insurers, the protection fund can levy special contributions of up to one per mille of total net technical provisions, in addition to a regular contribution of 0.2 per mille of total net technical provisions. For the health insurers, there is no pre-financing, but the fund may levy special contributions of up to two per mille of net technical provisions to fulfil its functions. This could give rise to a potential payment obligation of €161m (164m) at Group level. The functions and powers of the statutory protection fund for life insurance rest with Protektor Lebensversicherungs-AG, and those of the statutory protection fund for health insurance with Medicator AG.

Munich Re is a member of the German Nuclear Reactor Insurance Association (DKVG) and the Pharma Reinsurance Community. If another member of these pools is not able to meet their payment obligations, we may be held liable for a proportional share of their obligations. However, we consider the risk of such a liability arising to be remote.

Besides this, Munich Re has entered into various other financial obligations amounting to €973m (836m) for work and service contracts and €2,650m (2,911m) for investment obligations, of which €0m (12m) is from our investments in joint ventures. There were loan commitments amounting to €2,159m (1,847m) at the end of the reporting period. Many of these loan commitments, totalling €1,231m (1,282m), can be drawn down within one year; the other €279m (356m) between one and two years. These figures represent undiscounted nominal amounts. There are other financial commitments amounting to €13m (8m).

Munich Re has no other financial commitments of significance for the assessment of its financial position. No contingent liabilities have been entered into for the benefit of Board members.

49 Significant restrictions

Regulatory, legal or contractual restrictions and protective rights of non-controlling interests may restrict the Group's ability to access or use assets, and settle liabilities.

The carrying amounts of Group assets with restrictions on title can be found in the Notes to the consolidated balance sheet – Assets. The restrictions primarily result from contractual agreements, including pledged securities deposits to collateralise payment obligations from insurance business, the collateralisation of derivative transactions with securities and cash collateral or of bank liabilities with non-financial assets.

Individual national regulations require that assets held to cover insurance liabilities be managed separately. Generally there are special supervisory regulations governing access to these assets and their use.

In addition, we are subject to supervisory requirements that may restrict dividend payments or other capital distributions, loans and advance payments within the Group.

Our subsidiary Munich American Reassurance Company reported a negative earned surplus in its financial statements as at 31 December 2021 as per local statutory accounting principles. For this reason, the company can only pay dividends or transfer capital to the parent company with the approval of the competent US regulatory authority.

50 Leases

On the one hand, Munich Re is a lessee. Please see (15) Other assets and (28) Other liabilities for information on rights of use and lease liabilities.

Short-term leases with terms shorter than 12 months (and no purchase option) and leases for which the underlying asset is of low value are not recognised. Instead they are recognised through profit or loss as an expense of €1m (2m).

On the other hand, Munich Re is also a lessor. Operating leases mainly involve leased property.

Future minimum lease payments under operating leases

€m	31.12.2021	Prev. year
Up to one year	340	591
Over one year and up to five years	952	872
Over five years	702	627
Total	**1,993**	**2,090**

There were several finance leases for property at the end of the reporting period, which are listed in the following table:

Due dates

			31.12.2021			Prev. year
€m	Gross investment	Interest element	Net investment	Gross investment	Interest element	Net investment
Minimum lease payments up to one year	1	0	0	1	0	0
Minimum lease payments of over one year and up to five years	2	1	1	2	1	1
Minimum lease payments of over five years	69	55	14	70	56	14
Total minimum lease payments	**72**	**56**	**15**	**72**	**57**	**16**
Unguaranteed residual values	41	30	11	41	31	10
Total	**113**	**87**	**27**	**114**	**88**	**26**

51 Events after the balance sheet date

On 1 January 2022, via its subsidiary GroupHealth Northern Partners Inc., Vancouver, Munich Re acquired 75% of the voting shares in Blewett & Associates Inc. (Blewett), London, Ontario. Blewett's principal business activity is brokering group benefit sales. The intent of acquisition of Blewett is to add and protect distribution, improve product range, and to leverage the licensing model to optimise operations of GroupHealth Northern Partners Inc.

On 18 January 2022, via its subsidiary MR Falcon LP, Delaware, Munich Re acquired from EDF Renewables North America 50% of the voting shares in Maverick 67 HoldCo, LLC, Delaware, and 50% in Maverick 67 Class B HoldCo, LLC, Delaware, as a result of which we acquired 50% in Maverick Solar 6, LLC, Delaware, and 50% in Maverick Solar 7, LLC, Delaware.

Munich Reinsurance Company initiated a share buy-back in February 2022. By the Annual General Meeting on 5 May 2023, shares for a maximum total value of €1bn (excluding incidental expenses) are to be bought back.

Munich Re's insurance business in Ukraine and Russia is small. War risk is excluded in all relevant lines of business. We therefore do not expect any significant direct impact on our business. In terms of its overall portfolio, the investments Munich Re has in both countries are likewise only small. Given the far-reaching sanctions the Western community of values has imposed, defaults among the investments held in connection with these countries cannot be ruled out, and the risk of write-downs is therefore elevated. Secondary effects on the global capital markets would impact Munich Re – as they would all other market players.

The United Kingdom, Germany and the Benelux region were hit particularly hard in February by the storms Dudley, Eunice and Franklin (referred to as Ylenia, Zeynep and Antonia respectively in Germany). As there is still a very high degree of uncertainty at this stage, precise claims forecasts are not yet possible.

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

		2021	Prev. year
Consolidated result attributable to Munich Reinsurance Company equity holders	€m	2,933	1,211
Weighted average number of outstanding shares		140,098,931	140,285,225
Earnings per share	€	20.93	8.63

The number of outstanding shares remained unchanged in the 2021 financial year as no share buy-back took place.

53 Proposal for appropriation of profit

Munich Reinsurance Company's net retained profits for 2021 according to its financial statements prepared on the basis of German GAAP accounting amounted to €2,025,675,820.49. 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 €11.00 per dividend-bearing share, with the amount of €484,587,579.49 being appropriated to other revenue reserves.

List of shareholdings as at 31 December 2021 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 315e 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	
1137009 B.C. Ltd., Vancouver, British Columbia	100.0000
11658573 Canada Inc., Vancouver, British Columbia	100.0000
1202801 B.C. Ltd., Vancouver, British Columbia	100.0000
13th & F Associates Limited Partnership, Washington, D.C.	100.0000
1440 New York Ave. Associates LP, Dover, Delaware	100.0000
320 Park Avenue Associates LLC, Dover, Delaware	100.0000
330 Madison Associates LLC, Dover, Delaware	100.0000
330 Madison Holdings LLC, Dover, Delaware	100.0000
40 Courcelles SAS, Paris	100.0000
Adelfa Servicios a Instalaciones Fotovoltaicas S.L., Santa Cruz de Tenerife	100.0000
AGRA Gesellschaft für landwirtschaftliche Entwicklung und Beteiligung mbH, Berlin	100.0000
ALICE GmbH, Düsseldorf	100.0000
ALLYSCA Assistance GmbH, Munich	100.0000
American Alternative Insurance Corporation, Wilmington, Delaware	100.0000
American Digital Title Insurance Company, Brighton, Colorado	100.0000
American Family Home Insurance Company, Jacksonville, Florida	100.0000
American Modern Home Insurance Company, Amelia, Ohio	100.0000
American Modern Home Service Company, Amelia, Ohio	100.0000
American Modern Insurance Company of Florida Inc., Jacksonville, Florida	100.0000
American Modern Insurance Group Inc., Amelia, Ohio	100.0000
American Modern Lloyds Insurance Company, Dallas, Texas	100.0000
American Modern Property & Casualty Insurance Company, Amelia, Ohio	100.0000
American Modern Select Insurance Company, Amelia, Ohio	100.0000
American Southern Home Insurance Company, Jacksonville, Florida	100.0000
American Western Home Insurance Company, Oklahoma City, Oklahoma	100.0000
ATU Landbau GmbH & Co. KG, Munich	94.9000
Bagmoor Holdings Limited, London	100.0000
Bagmoor Wind Limited, London	100.0000
Bell & Clements (London) Ltd., London	100.0000
Bell & Clements (USA) Inc., Wilmington, Delaware	100.0000
Bell & Clements Inc., Herndon, Virginia	100.0000
Bell & Clements Ltd., London	100.0000
Bridgeway Insurance Company, Dover, Delaware	100.0000
Canadian Western Group Benefits & Pensions Inc., Vancouver, British Columbia	100.0000
CBIG – Canadian Benefits Investment & Insurance Group Inc., Vancouver, British Columbia	75.0000
CBIG Investments Inc., Vancouver, British Columbia	100.0000
Ceres Demetra GmbH, Munich	100.0000
Chinook Silva LLC, Wilmington, Delaware	100.0000
Comino Beteiligungen GmbH, Grünwald	100.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2018-17, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2018-24, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2018-31, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-05, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-10, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-40, Wilmington, Delaware	95.0000
Consumer Loan Underlying Bond (CLUB) Certificate Issuer Trust I Series 2019-47, Wilmington, Delaware	95.0000
Corion Pty Ltd, Sydney	100.0000
Cornwall Power (Polmaugan) Limited, London	100.0000
Countryside Renewables (Forest Heath) Limited, London	100.0000
D.A.S. Defensa del Automovilista y de Siniestros – Internacional S.A. de Seguros y Reaseguros, Madrid	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 Nederlandse Rechtsbijstand Verzekeringmaatschappij N.V., Amsterdam	100.0000
DAS Services Limited, Bristol	100.0000
DAS UK Holdings Limited, Bristol	100.0000
Digital Advantage Insurance Company, Warwick, Rhode Island	100.0000
Digital Affect Insurance Company, New York City, New York	100.0000
Digital Edge Insurance Company, Dover, Delaware	100.0000
DKV Belgium S.A., Brussels	100.0000

Company and registered seat	% share of capital
DKV Deutsche Krankenversicherung Aktiengesellschaft, Cologne	100.0000
DKV Pflegedienste & Residenzen GmbH, Cologne	100.0000
DKV Seguros y Reaseguros S.A. Española, Saragossa	100.0000
DMI Disability Management Institute Inc., Vancouver, British Columbia	100.0000
DWS Concept SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I4D), Luxembourg	100.0000
DWS Concept SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I6D o.N.), Luxembourg	100.0000
DWS Concept SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I7D o.N.), Luxembourg	100.0000
DWS Concept SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I8D o.N.), Luxembourg	100.0000
E&S Claims Management Inc., Herndon, 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 Danismanlik A.S., Istanbul	100.0000
ERGO Deutschland AG, Düsseldorf	100.0000
ERGO Digital Ventures AG, Düsseldorf	100.0000
ERGO Direkt AG, Fürth	100.0000
ERGO DIREKT Versicherung AG, Fürth	100.0000
ERGO Elfte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
ERGO Fund I LP, Dover, Delaware[1]	100.0000
ERGO Generales Seguros y Reaseguros S.A., Madrid	100.0000
ERGO Group AG, Düsseldorf	100.0000
ERGO Grundstücksverwaltung GbR, Düsseldorf[1]	100.0000
ERGO Insurance Company Single Member S.A., Athens	100.0000
ERGO Insurance N.V., Brussels	100.0000
ERGO Insurance Pte. Ltd., Singapore	100.0000
ERGO Insurance SE, Tallinn	100.0000
ERGO International Aktiengesellschaft, Düsseldorf	100.0000
ERGO International Services GmbH, Düsseldorf	100.0000
ERGO Invest SIA, Riga	100.0000
ERGO Krankenversicherung AG, Fürth	100.0000
ERGO Lebensversicherung Aktiengesellschaft, Hamburg	100.0000
ERGO Life Insurance SE, Vilnius	100.0000
ERGO Life S.A., Grevenmacher	100.0000
ERGO Neunte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
ERGO Partners N.V., Brussels	100.0000
ERGO Pensionsfonds Aktiengesellschaft, Düsseldorf	100.0000
ERGO Pensionskasse AG, Düsseldorf	100.0000
ERGO Private Capital Dritte GmbH & Co. KG, Düsseldorf	100.0000
ERGO Private Capital ERGO Leben GmbH, Düsseldorf	100.0000
ERGO Private Capital Gesundheit GmbH, Düsseldorf	100.0000
ERGO Private Capital Komposit GmbH & Co. KG, Düsseldorf	100.0000
ERGO Private Capital Pensionskasse GmbH, Düsseldorf	100.0000
ERGO Private Capital Victoria Leben GmbH, Düsseldorf	100.0000
ERGO Private Capital Vierte GmbH & Co. KG, Düsseldorf	100.0000
ERGO Private Capital Vorsorge GmbH, Düsseldorf	100.0000
ERGO Private Capital Zweite GmbH & Co. KG, Düsseldorf	100.0000
ERGO Reiseversicherung AG, Munich	100.0000
ERGO Sechzehnte Beteiligungs-AG, Munich	100.0000
ERGO Technology & Services Management AG, Düsseldorf	100.0000
ERGO Technology and Services S.A., Sopot	100.0000
ERGO Versicherung Aktiengesellschaft, Düsseldorf	100.0000
ERGO Versicherung Aktiengesellschaft, Vienna	100.0000

Company and registered seat	% share of capital
ERGO Vida Seguros y Reaseguros S.A., Saragossa	100.0000
ERGO Vorsorge Lebensversicherung AG, Düsseldorf	100.0000
ERV Evropská pojišťovna, a.s., Prague	100.0000
Euro-Center Holding SE, Prague	83.3333
Europaeiske Rejseforsikring A/S, Copenhagen	100.0000
Fairance GmbH, Düsseldorf	100.0000
Faunus Silva LLC, Wilmington, Delaware	100.0000
Flexitel Telefonservice GmbH, Berlin	100.0000
Forst Ebnath AG, Ebnath	100.0000
FOTOUNO S.r.l., Brixen	100.0000
FOTOWATIO ITALIA GALATINA S.r.l., Brixen	100.0000
FREE MOUNTAIN SYSTEMS S.L., Madrid	100.0000
FS Louisiana I LLC, Wilmington, Delaware	100.0000
FS Louisiana II LLC, Wilmington, Delaware	100.0000
FS San Augustine LLC, Wilmington, Delaware	100.0000
Fundo Invest Exclusivo referenciado di Munich Re Brasil, São Paulo[4]	99.7900
FW Żary Sp.z.o.o., Warsaw	100.0000
Gaucheret S.A., Ixelles	100.0000
GHGH Holdings Inc., Vancouver, British Columbia	100.0000
Global Standards LLC, Dover, Delaware	100.0000
Globality S.A., Munsbach	100.0000
Great Lakes Insurance SE, Munich	100.0000
GroupHEALTH Global Benefit Systems Inc., Vancouver, British Columbia	100.0000
GroupHEALTH Investments Inc., Vancouver, British Columbia	100.0000
GroupHealth Northern Partners Inc., Vancouver, British Columbia	100.0000
GroupSource GP Inc., Vancouver, British Columbia	100.0000
GroupSource Limited Partnership, Calgary, Alberta[1]	100.0000
Groves, John & Westrup Limited, Liverpool	100.0000
Habiriscos – Investimentos Imobiliários, S.A., Lisbon	100.0000
Hartford Steam Boiler (M) SDN BHD, Kuala Lumpur	100.0000
Hartford Steam Boiler (Singapore) Pte. Ltd., Singapore	100.0000
Hartford Steam Boiler International GmbH, Rheine	100.0000
Hartford Steam Boiler Ireland Limited, Dublin	100.0000
HMV GFKL Beteiligungs GmbH, Düsseldorf	100.0000
HSB Brasil Servicos de Engenharia e Inspecao Ltda, São Paulo	100.0000
HSB Engineering Finance Corporation, Dover, Delaware	100.0000
HSB Engineering Insurance Limited, London	100.0000
HSB Engineering Insurance Services Limited, London	100.0000
HSB Fund I LP, Dover, Delaware[1]	100.0000
HSB Group Inc., Dover, Delaware	100.0000
HSB International (India) Private Limited, Vadodara	100.0000
HSB Japan K.K., 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 Imobiliários 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	100.0000

Company and registered seat	% share of capital
IDEENKAPITAL Metropolen Europa GmbH & Co. KG, Düsseldorf	72.3477
iii, Munich[4]	100.0000
IK Einkauf Objekt Eins GmbH & Co. KG, Düsseldorf	100.0000
IK Einkauf Objektmanagement GmbH, Düsseldorf	100.0000
IK Einkaufsmärkte Deutschland GmbH & Co. KG, Düsseldorf	52.0387
IK Premium Fonds GmbH & Co. KG, Düsseldorf	100.0000
IK Premium Fonds zwei GmbH & Co. KG, Düsseldorf	100.0000
IKFE Properties I AG, Zurich	64.4151
Imofloresmira – Investimentos Imobiliários 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	85.5944
KA Köln.Assekuranz Agentur GmbH, Cologne	100.0000
KS SPV 23 Limited, London	100.0000
Lakelse Financial Group Inc., Vancouver, British Columbia	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
Manion Wilkins & Associates Ltd., Toronto, Ontario	64.7406
Marina Sp.z.o.o., Sopot	100.0000
MEAG Ambition, Munich[4]	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 ESUS 1, Munich[4]	100.0000
MEAG EUR Global 1, Munich[4]	100.0000
MEAG Euro 1, Munich[4]	100.0000
MEAG Euro 2, Munich[4]	100.0000
MEAG EURO-FONDS, Munich[4]	100.0000
MEAG European Prime Opportunities, Munich[4]	56.7903
MEAG Eurostar, Munich[4]	100.0000
MEAG EURO-Yield, Munich[4]	100.0000
MEAG FlexConcept – Basis, Luxembourg[4]	100.0000
MEAG FlexConcept – Eurobond, Luxembourg[4]	100.0000
MEAG FlexConcept – Wachstum, Luxembourg[4]	100.0000
MEAG GBP Global-STAR, Munich[4]	100.0000
MEAG German Prime Opportunities (GPO), Munich[4]	100.0000
MEAG HBG 1, Munich[4]	100.0000
MEAG HM Sach Rent 1, Munich[4]	100.0000
MEAG HMR 1, Munich[4]	100.0000
MEAG HMR 2, Munich[4]	100.0000
MEAG Hyperion Fund, Munich[4]	100.0000
MEAG IREN, Munich[4]	100.0000
MEAG 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

Company and registered seat	% share of capital
MEAG Multi Sach 1, Munich[4]	100.0000
MEAG MUNICH ERGO AssetManagement GmbH, Munich	100.0000
MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH, Munich	100.0000
MEAG Munich Re Placement, Grünwald[4]	100.0000
MEAG New York Corporation, Dover, Delaware	100.0000
MEAG PEGASUS, Munich[4]	100.0000
MEAG Pension Invest, Munich[4]	100.0000
MEAG Pensionskasse Nord, Munich[4]	100.0000
MEAG Pensionskasse West, Munich[4]	100.0000
MEAG PREMIUM, Munich[4]	100.0000
MEAG Prof III Beteiligungsgesellschaft mbH, Munich	100.0000
MEAG Property Fund I, Munich[4]	100.0000
MEAG Property Fund III, Munich[4]	100.0000
MEAG RenditePlus, Munich[4]	100.0000
MEAG REVO, Munich[4]	100.0000
MEAG US Fonds, Munich[4]	100.0000
MEAG Venus, Munich[4]	100.0000
MEAG Vidas Rent 3, Munich[4]	100.0000
MEAG VISION, Munich[4]	100.0000
MEAG VLA, Munich[4]	100.0000
MedNet Holding GmbH, Munich	100.0000
Merkur Grundstücks- und Beteiligungs-Gesellschaft mit beschränkter Haftung, Düsseldorf	100.0000
Meshify Inc., Dover, Delaware	100.0000
MFI Munich Finance and Investment Holding Ltd., Ta' Xbiex	100.0000
MFI Munich Finance and Investment Ltd., Ta' Xbiex	100.0000
Midland-Guardian Co., Amelia, Ohio	100.0000
Midwest Enterprises Inc., Tallahassee, Florida	100.0000
MR Bazos LP, Dover, Delaware	100.0000
MR Beteiligungen 1. GmbH, Munich[3]	100.0000
MR Beteiligungen 2. EUR AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen 2. GmbH, Munich[3]	100.0000
MR Beteiligungen 3. EUR AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen 18. GmbH & Co. 2. Real Estate KG, Grünwald[2]	100.0000
MR Beteiligungen 18. GmbH & Co. 3. Real Estate KG, Grünwald[2]	100.0000
MR Beteiligungen 18. GmbH & Co. 4. Real Estate KG, Grünwald[2]	100.0000
MR Beteiligungen 18. GmbH & Co. Immobilien KG, Grünwald[2]	100.0000
MR Beteiligungen 18. GmbH & Co. Real Estate KG, Grünwald[2]	100.0000
MR Beteiligungen 19. GmbH, Munich	100.0000
MR Beteiligungen EUR AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen GBP AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen UK AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen USD AG & Co. KG, Grünwald[2]	100.0000
MR Debt Finance GmbH, Grünwald	100.0000
MR Electra LP, Dover, Delaware	100.0000
MR ERGO Beteiligungen GmbH, Grünwald	100.0000
MR Gotham LP, Dover, Delaware	100.0000
MR Infrastructure Investment GmbH, Munich[3]	100.0000
MR Investment Inc., Dover, Delaware	100.0000
MR Jordan LP, Dover, Delaware	100.0000
MR McQueen LP, Dover, Delaware	100.0000
MR Olivia LP, Dover, Delaware	100.0000
MR RENT UK Investment Limited, London	100.0000
MRSG UK Services Limited, London	100.0000
Munich American Reassurance Company, Norcross, Georgia	100.0000

Company and registered seat	% share of capital
Munich Health Daman Holding Ltd., Abu Dhabi	51.0000
Munich Holdings Ltd., Toronto, Ontario	100.0000
Munich Holdings of Australasia Pty Ltd, Sydney	100.0000
Munich Life Holding Corporation, Dover, Delaware	100.0000
Munich Life Management Corporation Ltd., Toronto, Ontario	100.0000
Munich Management Pte. Ltd., Singapore	100.0000
Munich Re America Corporation, Dover, Delaware	100.0000
Munich Re America Services Inc., Wilmington, Delaware	100.0000
Munich Re Automation Solutions Limited, Dublin	100.0000
Munich Re Capital Limited, London	100.0000
Munich Re CVC Investment Corp., Dover, Delaware	100.0000
Munich Re Digital Partners Limited, London	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 Insurance Services Inc., Boston, Massachusetts	100.0000
Munich Re Specialty Group Ltd., London	100.0000
Munich Re Specialty Group N.A. Inc., Wilmington, Delaware	100.0000
Munich Re Specialty Insurance (UK) Limited, Manchester	100.0000
Munich Re Syndicate Labuan Limited, Labuan	100.0000
Munich Re Syndicate Limited, London	100.0000
Munich Re Syndicate Middle East Ltd., Dubai	100.0000
Munich Re Syndicate Singapore Ltd., Singapore	100.0000
Munich Re Trading LLC, Dover, Delaware	100.0000
Munich Re UK Services Limited, London	100.0000
Munich Re US Life Corporation, Norcross, Georgia	100.0000
Munich Re Ventures Inc., Dover, Delaware	100.0000
Munich Re Ventures LLC, Dover, Delaware	100.0000
Munich Re Weather & Commodity Risk Holding Inc., Dover, Delaware	100.0000
Munich Reinsurance America Inc., Wilmington, Delaware	100.0000
Munich Reinsurance Company of Africa Ltd, Johannesburg	100.0000
Munich Reinsurance Company of Australasia Ltd, Sydney	100.0000
Munich Reinsurance Company of Canada, Toronto, Ontario	100.0000
Munich-American Holding Corporation, Wilmington, Delaware	100.0000
MunichFinancialGroup GmbH, Munich	100.0000
Munichre Service Limited, Hong Kong	100.0000
New Reinsurance Company Ltd., Zurich	100.0000
nexible Versicherung AG, Nuremberg	100.0000
OIK Mediclin, Wiesbaden[4]	70.7073
Pan Estates LLC, Wilmington, Delaware	100.0000
PARACHUTE DIGITAL SOLUTIONS HOLDINGS INC., Toronto, Ontario	100.0000
Parachute Digital Solutions Inc., Wilmington, Delaware	100.0000
Parachute Solutions Numériques Inc., Toronto, Ontario	100.0000

Company and registered seat	% share of capital
PBS Benefits Corporation, Vancouver, British Columbia	100.0000
Pegasos Holding GmbH, Munich	100.0000
Picus Silva Inc., Wilmington, Delaware	100.0000
Ponga Silva Limited, Rotorua	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
Prosper Pass-Thru Trust I Series 2019-03, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2019-04, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2019-05, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2019-06, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2020-01, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2020-02, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2021-01, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2021-02, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2021-03, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2021-04, Wilmington, Delaware	95.0000
Prosper Pass-Thru Trust I Series 2021-05, Wilmington, Delaware	95.0000
PS Louisiana I LLC, Wilmington, Delaware	100.0000
PS Louisiana II LLC, Wilmington, Delaware	100.0000
Raccoon Silva LLC, Camden, Delaware	100.0000
Relayr GmbH, Pullach i. Isartal	100.0000
Relayr Inc., Dover, Delaware	100.0000
Relayr Limited, Watford	100.0000
Relayr Sp. Z o.o., Katowice	100.0000
Renaissance Hotel Realbesitz GmbH, Vienna	60.0000
Roanoke Insurance Group Canada Inc., Toronto, Ontario	100.0000
Roanoke Insurance Group Inc., Schaumburg, Illinois	100.0000
Roanoke International Brokers Limited, London	100.0000
Scout Moor Group Limited, London	100.0000
Scout Moor Holdings (No. 1) Limited, London	100.0000
Scout Moor Holdings (No. 2) Limited, London	100.0000
Scout Moor Wind Farm Limited, London	100.0000
Silvanus Vermögensverwaltungsges. mbH, Munich[3]	100.0000
Solarpark Fusion 3 GmbH, Düsseldorf	100.0000
Solomon Associates Limited, Farnborough	100.0000
Sopockie Towarzystwo Ubezpieczen Ergo Hestia Spolka Akcyjna, Sopot	100.0000
Sopockie Towarzystwo Ubezpieczen na Zycie Ergo Hestia Spolka Akcyjna, Sopot	100.0000
Specialty Insurance Services Corp., Amelia, Ohio	100.0000
Sun Energy & Partners S.r.l., Brixen	100.0000
Talon Benefits Consulting Group Ltd., Vancouver, British Columbia	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

Company and registered seat	% share of capital
The Hartford Steam Boiler Inspection and Insurance Company of Connecticut, Hartford, Connecticut	100.0000
The Hartford Steam Boiler Inspection and Insurance Company, Hartford, Connecticut	100.0000
The Midland Company, Amelia, Ohio	100.0000
The Polytechnic Club Inc., Hartford, Connecticut	100.0000
The Princeton Excess and Surplus Lines Insurance Company, Wilmington, Delaware	100.0000
THEC 2019 Zrt. "v.a.", Budapest	100.0000
Tir Mostyn and Foel Goch Limited, London	100.0000
UAB Agra Aurata, Vilnius	100.0000
UAB Agra Corp., Vilnius	100.0000
UAB Agra Optima, Vilnius	100.0000
UAB Agrofondas, Vilnius	100.0000
UAB Agrolaukai, Vilnius	100.0000
UAB Agrora, Vilnius	100.0000
UAB Agrovalda, Vilnius	100.0000
UAB Agrovesta, Vilnius	100.0000
UAB G.Q.F., Vilnius	100.0000
UAB Lila Holdingas, Vilnius	100.0000
UAB Sietuve, Vilnius	100.0000
UAB Terra Culta, Vilnius	100.0000
UAB Ukelis, Vilnius	100.0000
UAB Vasaros Brizas, Vilnius	100.0000
UAB VL Investment Vilnius 1, Vilnius	100.0000
UAB VL Investment Vilnius 2, Vilnius	100.0000
UAB VL Investment Vilnius 3, Vilnius	100.0000
UAB VL Investment Vilnius 4, Vilnius	100.0000
UAB VL Investment Vilnius 5, Vilnius	100.0000
UAB VL Investment Vilnius 6, Vilnius	100.0000
UAB VL Investment Vilnius 7, Vilnius	100.0000
UAB VL Investment Vilnius 8, Vilnius	100.0000
UAB VL Investment Vilnius 9, Vilnius	100.0000
UAB VL Investment Vilnius 10, Vilnius	100.0000
UAB VL Investment Vilnius, Vilnius	100.0000
UK Wind Holdings Ltd., London	100.0000
Unión Médica La Fuencisla S.A., Compañía de Seguros, Saragossa	100.0000
VHDK Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
VICTORIA Italy Property GmbH, Düsseldorf	100.0000
Victoria Lebensversicherung Aktiengesellschaft, Düsseldorf	100.0000
Victoria US Property Investment GmbH, Düsseldorf	100.0000
VICTORIA Vierte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
Victoria Vierter Bauabschnitt GmbH & Co. KG, Düsseldorf	100.0000
Vorsorge Service GmbH, Düsseldorf	100.0000
welivit GmbH, Düsseldorf	100.0000
welivit Solarfonds GmbH & Co. KG, Düsseldorf	100.0000
welivit Solarfonds S.a.s. di welivit Solar Italia S.r.l., Bolzano	100.0000
WFB Stockholm Management AB, Stockholm	100.0000
Willow Series Holdings LLC Series C, Wilmington, Delaware	100.0000
Wind Farm Jenasen AB, Hässleholm	100.0000
Wind Farms Götaland Svealand AB, Hässleholm	100.0000
Windpark MR-N 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

Company and registered seat	% share of capital
ARTES Assekuranzservice GmbH, Düsseldorf	100.0000
Badozoc 1001 S.L., Valencia	100.0000
Baqueda 7007 S.L., Valencia	100.0000
Benelogix Benefits Inc., Vancouver, British Columbia[4]	50.0000
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
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
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
Care4Business Versicherungsdienst GmbH, Vienna	100.0000
Centrum Pomocy Osobom Poszkodowanym Sp.z.o.o., Gdańsk	100.0000
Copper Leaf Research, Eaton Rapids, Michigan	100.0000
Cotatrillo 100010 S.L., Valencia	100.0000
D.A.S. Prawo i Finanse Sp.z.o.o. w likwidacji, Warsaw	100.0000
D.A.S., Tomasz Niedzinski Kancelaria Prawna Spolka komandytowa, Warsaw	95.0000
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 Erste Beteiligungsgesellschaft mbH i. L., 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
DRIVEyourRisk GmbH, Munich	100.0000
ERGO (China) Management Company Limited, Beijing	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 Mobility Solutions GmbH, Düsseldorf	100.0000
ERGO Private Capital GmbH, Düsseldorf	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
ERGO-FESCO Broker Company Limited, Beijing	66.0000
ERV (China) Travel Service and Consulting Ltd., Beijing	100.0000
Etics ITP, s.r.o., Prague	100.0000

Company and registered seat	% share of capital
Etoblete 160016 S.L., Valencia	100.0000
Euro-Center (Cyprus) Ltd., Larnaca	100.0000
Euro-Center (Thailand) Co., Ltd., Bangkok	100.0000
Euro-Center Cape Town (Pty) Ltd, Cape Town	100.0000
Euro-Center Holding North Asia (HK) Pte. Ltd., Hong Kong	100.0000
Euro-Center Ltda., São Paulo	100.0000
Euro-Center Prague, s.r.o., Prague	100.0000
EUROCENTER S.A., Palma de Mallorca	100.0000
Euro-Center Sydney Pty Ltd., Sydney	100.0000
Euro-Center USA, Inc., New York City, New York	100.0000
EURO-CENTER YEREL YARDIM HIZMETLERI Ltd. Şti., Istanbul	100.0000
European Assistance Holding GmbH, Munich	100.0000
Evaluación Médica TUW S.L., Barcelona	100.0000
Gamaponti 140014 S.L., Valencia	100.0000
GBG Vogelsanger Straße GmbH, Cologne	94.7826
Gebäude Service Gesellschaft Überseering 35 mbH, Hamburg	100.0000
goDentis – Gesellschaft für Innovation in der Zahnheilkunde mbH, Cologne	100.0000
Great Lakes (Gibraltar) Plc, Gibraltar	100.0000
GREAT LAKES SERVICES UK LIMITED, London	100.0000
GroupSimple Solutions Inc., Vancouver, British Columbia[4]	50.0000
Guanzu 2002 S.L., Valencia	100.0000
Hamburger Hof Management GmbH, Hamburg	100.0000
Hansekuranz Kontor GmbH, Münster	80.0042
Hartford Steam Boiler Colombia Ltda, Bogotá	100.0000
Hartford Steam Boiler UK Limited, Manchester	100.0000
Hestia Loss Control Sp.z.o.o., Sopot	100.0000
HSB Associates Inc., New York City, New York	100.0000
HSB Sheet Metal EaaS GmbH & Co. KG, Munich	100.0000
HSB Ventures Inc., Dover, Delaware	100.0000
Ideenkapital erste Investoren Service GmbH, Düsseldorf	100.0000
Ideenkapital Fonds Treuhand GmbH, Düsseldorf	100.0000
IDEENKAPITAL Investment GmbH, Düsseldorf	100.0000
Ideenkapital Media Treuhand GmbH, Düsseldorf	100.0000
IDEENKAPITAL Metropolen Europa Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
IDEENKAPITAL PRORENDITA EINS Treuhandgesellschaft mbH, Düsseldorf	100.0000
IDEENKAPITAL Schiffsfonds Treuhand GmbH, Düsseldorf	100.0000
IFS Europe Holding GmbH, Munich	100.0000
IK Einkauf Objektverwaltungsgesellschaft mbH, Düsseldorf	100.0000
IK Einkaufsmärkte Deutschland Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
IK FE Fonds Management GmbH, Düsseldorf	100.0000
IK Komp GmbH, Düsseldorf	100.0000
IK Objekt Bensheim GmbH, Düsseldorf	100.0000
IK Pflegezentrum Uelzen Verwaltungs-GmbH, Düsseldorf	100.0000
IK Property Eins Verwaltungsgesellschaft mbH i. L., Düsseldorf	100.0000
IK Property Treuhand GmbH, Düsseldorf	100.0000
IoT Financing Services LLC, Dover, Delaware	100.0000
Jogszerviz Kft, Budapest	100.0000
JRP (London) Limited, London	100.0000
JRP Insurance Management Limited, London	100.0000
JRP Underwriting Ltd., London	100.0000
Junos Verwaltungs GmbH, Munich	100.0000

Company and registered seat	% share of capital
K & P Objekt München Hufelandstraße GmbH i. L., Düsseldorf	100.0000
KQV Solarpark Franken 1 GmbH & Co. KG, Düsseldorf	100.0000
Larus Vermögensverwaltungsgesellschaft mbH, Munich	100.0000
Legal Net GmbH, Munich	100.0000
m:editerran Power S.a.s. di welivit Solar Italia S.r.l., Bolzano	100.0000
Marbury Agency Inc., Amelia, Ohio	100.0000
MEAG EuroCorpRent, Munich[4]	85.3329
MEAG FlexConcept – EuroGrowth, Luxembourg[4]	100.0000
MEAG Hong Kong Limited, Hong Kong	100.0000
MEAG Institutional Fund GP S.à.r.l., Luxembourg	100.0000
MEAG Insurance Fund – Tied Assets, Geneva[4]	100.0000
MEAG Luxembourg S.à r.l., Luxembourg	100.0000
MEAG Pension Rent, Munich[4]	100.0000
MEAG Pension Safe, Munich[4]	100.0000
MEAG Vermögensanlage Komfort, Munich[4]	43.0873
MEAG Vermögensanlage Return (A+I Tranche), Munich[4]	58.1019
Mediastream Consulting GmbH i. L., Grünwald	100.0000
Mediastream Film GmbH i. L., Grünwald	100.0000
Mediastream Zweite Film GmbH i. L., Grünwald	100.0000
MedNet Bahrain W.L.L., Manama	100.0000
MedNet Egypt LLC, Cairo	100.0000
MedNet Europa GmbH, Munich	100.0000
MedNet Global Healthcare Solutions LLC, Dubai	100.0000
MedNet Greece S.A., Athens	78.7157
MedNet Jordan Co. W.L.L., Amman	100.0000
MedNet Saudi Arabia LLC, Jeddah	100.0000
MedNet SPC, Muscat	100.0000
MedNet UAE FZ LLC, Dubai	100.0000
miCura Pflegedienste Bremen GmbH, Bremen	100.0000
miCura Pflegedienste Düsseldorf GmbH, Düsseldorf	100.0000
miCura Pflegedienste GmbH, Cologne	100.0000
miCura Pflegedienste Hamburg GmbH, Hamburg	100.0000
miCura Pflegedienste Krefeld GmbH, Krefeld	100.0000
miCura Pflegedienste München/Dachau GmbH, Dachau	51.0000
miCura Pflegedienste München GmbH i. L., Munich	100.0000
miCura Pflegedienste München Ost GmbH, Munich	65.0000
miCura Pflegedienste Münster GmbH, Münster	100.0000
miCura Pflegedienste Nürnberg GmbH, Nuremberg	51.0000
MPL Claims Management Ltd., London	52.0000
MR Beteiligungen 2. UK AG & Co. KG, Grünwald	100.0000
MR Beteiligungen 3. GmbH, Munich	100.0000
MR Beteiligungen 15. GmbH, Munich	100.0000
MR Beteiligungen 17. GmbH, Munich	100.0000
MR Beteiligungen 18. GmbH, Grünwald	100.0000
MR Beteiligungen 20. GmbH, Munich	100.0000
MR Beteiligungen 21. GmbH, Munich	100.0000
MR Beteiligungen 22. GmbH, Munich	100.0000
MR Beteiligungen AG, Grünwald	100.0000
MR Equity Investment GmbH, Munich	100.0000
MR Falcon LP, Dover, Delaware	100.0000
MR Financial Group GmbH, Munich	100.0000
MR Group Investment US Inc., Dover, Delaware	100.0000
MR HealthTech Ltd., Nicosia	100.0000
MR Infrastructure Inc., Dover, Delaware	100.0000
MR RENT-Management GmbH, Munich	100.0000
MR Solar GmbH & Co. KG, Düsseldorf	100.0000
MR SOLAR SAS DER WELIVIT SOLAR ITALIA S.r.l., Bolzano	100.0000
MU068 MR Placem (FCP), Paris[4]	100.0000

Company and registered seat	% share of capital
Münchener de Argentina Servicios Técnicos S.R.L., Buenos Aires	90.0000
Münchener de Mexico S.A., Mexico City	100.0000
Münchener de Venezuela C.A. Intermediaria de Reaseguros, Caracas	100.0000
Münchener Finanz Gruppe AG Beteiligungen, Munich	100.0000
MÜNCHENER RÜCKVERSICHERUNGS – GESELLSCHAFT AKTIENGESELLSCHAFT IN MÜNCHEN ESCRITÓRIO DE REPRESENTAÇÃO NO BRASIL LTDA, São Paulo	100.0000
Munich American Reassurance Company PAC Inc., Norcross, Georgia[4]	0.0000
Munich Canada Systems Corporation, Toronto, Ontario	100.0000
Munich Re America Brokers Inc., Dover, Delaware	100.0000
Munich Re America Management Ltd., London	100.0000
Munich Re Automation Solutions GmbH, Munich	100.0000
Munich Re Automation Solutions Inc., Wilmington, Delaware	100.0000
Munich Re Automation Solutions K.K., Tokyo	100.0000
Munich Re Automation Solutions Pte. Ltd., Singapore	100.0000
Munich Re Automation Solutions Pty Ltd, Sydney	100.0000
Munich Re Capital Markets GmbH, Munich	100.0000
Munich Re Capital No.2 Limited, London	100.0000
Munich Re Fund II LP, Dover, Delaware[1]	100.0000
Munich Re Health Services FZ-LLC, Dubai	100.0000
Munich Re India Services Private Limited, Mumbai	100.0000
Munich Re Investment Partners GmbH, Munich	100.0000
Munich Re Markets GmbH, Munich	100.0000
Munich Re Risk Solution Ireland Limited, Dublin	100.0000
Munich Re Service GmbH, Munich	100.0000
Munich Re Underwriting Agents (DIFC) Ltd., Dubai	100.0000
Munich-Canada Management Corp. Ltd., Toronto, Ontario	100.0000
MunichFinancialGroup AG Holding, Munich	100.0000
MunichFinancialServices AG Holding, Munich	100.0000
Naretoblera 170017 S.L., Valencia	100.0000
Nerruze 120012 S.L., Valencia	100.0000
nexible GmbH, Düsseldorf	100.0000
nexsurance GmbH, Düsseldorf	100.0000
NMU (Specialty) Limited, London	100.0000
Orrazipo 110011 S.L., Valencia	100.0000
P.A.N. Verwaltungs GmbH, Grünwald	100.0000
PLATINIA Verwaltungs-GmbH i. L., Munich	100.0000
PORT Schiffsverwaltungsgesellschaft mbH i. L., Bramstedt	100.0000
PRORENDITA DREI Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
PRORENDITA EINS Verwaltungsgesellschaft mbH i. L., Düsseldorf	100.0000
PRORENDITA FÜNF Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
PRORENDITA VIER Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
PRORENDITA ZWEI Verwaltungsgesellschaft mbH i. L., Düsseldorf	100.0000
Reaseguradora de las Américas S.A., Havana	100.0000
SAINT LEON ENERGIE S.A.R.L., Sarreguemines	100.0000
Schloss Hohenkammer GmbH, Hohenkammer	100.0000
Schrömbgens & Stephan GmbH Versicherungsmakler, Düsseldorf	100.0000
Smart Thinking Consulting (Beijing) Co. Ltd., Beijing	100.0000
Solarfonds Göttelborn 2 GmbH & Co. KG, Düsseldorf[4]	34.4234
Sopockie Towarzystwo Doradcze Sp.z.o.o., Sopot	100.0000
Stichting Aandelen Beheer D.A.S. Holding, Amsterdam	100.0000
Sustainable Finance Risk Consulting GmbH, Munich	100.0000
TAS Touristik Assekuranz-Service GmbH, Frankfurt am Main	100.0000
Tellus Demetra LLC, Wilmington, Delaware	100.0000
Thipara GmbH, Hamburg	80.1000
TIERdirekt GmbH, Munich	75.0000
Tillobesta 180018 S.L., Valencia	100.0000
Triple IP B.V. in liquidatie, Utrecht	100.0000
US PROPERTIES VA Verwaltungs-GmbH i. L., Düsseldorf	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
WNE Solarfonds Süddeutschland 2 GmbH & Co. KG, Düsseldorf	100.0000
Wohnungsgesellschaft Brela mbH, Hamburg	100.0000
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, Wilmington, Delaware	20.7300
2014 Sol I LLC, Wilmington, Delaware	50.0000
Arcapark SAS, Rueil-Malmaison[5]	15.1000
Astoria Power Partners Holding LLC, Dover, Delaware	20.0000
Bazos CIV LP, Wilmington, Delaware[7]	100.0000
Consorcio Internacional de Aseguradores de Crédito S.A., Madrid[5]	15.0353
D.A.S. Difesa Automobilistica Sinistri, S.p.A. di Assicurazione, Verona	49.9920
EGM Wind SAS, Paris	40.0000
ERGO China Life Insurance Co., Ltd., Jinan, Shandong Province	50.0000
Europai Utazasi Biztosito Rt, Budapest	26.0000
Europäische Reiseversicherungs-Aktiengesellschaft, Vienna	25.0100
Global Aerospace Underwriting Managers Ltd., London[7]	51.0000
HDFC ERGO General Insurance Company Ltd., Mumbai	48.9919
Infra Foch Topco SAS, Puteaux[5]	10.7900
Invesco MEAG US Immobilien Fonds IV, Luxembourg	37.1670
KarstadtQuelle Finanz Service GmbH i. L., Düsseldorf	50.0000

Company and registered seat	% share of capital
King Price Financial Services (Pty) Ltd, Pretoria[5]	15.0000
Marchwood Power Limited, Southampton	50.0000
MEAG INSTITUTIONAL FUND S.C.S. SICAV-RAIF – MEAG Infrastructure Debt Fund II, Luxembourg[5]	14.0219
MEDICLIN Aktiengesellschaft, Offenburg	35.0042
Next Insurance Inc., Wilmington, Delaware	33.6934
Poolbeg Investments Limited, London	37.5000
RP Vilbeler Fondsgesellschaft mbH i. L., Frankfurt am Main	40.0000
Sana Kliniken AG, Munich	22.4904
SAS Le Point du Jour, Paris	50.0000
SNIC Insurance B.S.C. (c), Manama	22.5000
SR Texas Wind Holdings 1 LLC, Wilmington, Delaware	49.0000
STEAG Fernwärme GmbH, Essen	49.0000
Storebrand Helseforsikring AS, Oslo	50.0000
Super Home Inc., Dover, Delaware[5]	14.9200
Suramericana S.A., Medellín[5]	18.8672
Taishan Property & Casuality Insurance Co. Ltd., Jinan, Shandong Province	24.9000
Taunus Holding B.V., Rotterdam	23.1913
Thaisri Insurance Public Company Limited, Bangkok	40.2576
Vier Gas Investments S.à r.l., Luxembourg	43.7516
Associates and joint ventures accounted for at fair value	
Assistance Partner GmbH & Co. KG, Munich	21.6600
Augury Inc., Wilmington, Delaware[5]	9.8300
carexpert Kfz-Sachverständigen GmbH, Walluf	25.0000
CDAT Software Inc., Vancouver, British Columbia	40.0000
CertX AG, Marly	35.0000
Cyber Sepio Systems Limited, Tel Aviv[5]	12.9400
Dayforward Inc., Wilmington, Delaware[5]	8.5000
Fernkälte Geschäftsstadt Nord Gesellschaft bürgerlichen Rechts, Hamburg[1]	36.6994
Finsure Investments (Private) Limited, Harare	24.5000
FlexFactory GmbH, Stuttgart	50.0000
GIG City Nord GmbH, Hamburg	20.0000
GroupStrength Benefits Direct Inc., Vancouver, British Columbia	50.0000
Hartford Research LLC, Lewes, Delaware	41.7500
High Definition Vehicle Insurance Inc., Dover, Delaware[5]	9.2800
Inshur Holding Corp., Wilmington, Delaware[5]	15.0200
LCM Logistic Center Management GmbH, Hamburg	50.0000
MEAG Pacific Star Asset Management Pte. Ltd., Singapore	50.0000
Orbit Fab Inc., Dover, Delaware[5]	5.2700
PERILS AG, Zurich[5]	10.0000
Span.IO Inc., Dover, Delaware[5]	9.1700
Spruce Holdings Inc., Wilmington, Delaware[5]	11.7500
Teko – Technisches Kontor für Versicherungen Gesellschaft mit beschränkter Haftung, Düsseldorf	30.0000
Tianjin Yihe Information Technology Co. Ltd., Tianjin	24.9000
versdiagnose GmbH, Hanover	49.0000
Volksbanken-Versicherungsdienst GmbH, Vienna	25.2319
VV Immobilien Verwaltungs und Beteiligungs GmbH, Munich	30.0000
We Predict Limited, Swansea[5]	17.5900
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

Company and registered seat	% share of capital
Shareholdings exceeding 5% of the voting rights in large companies as defined in Section 271(1) of the German Commercial Code (HGB)	
Extremus Versicherungs-Aktiengesellschaft, Cologne (equity: €64,219k; result for year: €119k)	16.0000
Protektor Lebensversicherungs-AG, Berlin (equity: €7,853k; result for year: €2k)	10.7631
Saudi Enaya Cooperative Insurance Company, Jeddah (equity: €28,513k; result for year: −€6,404k)	15.0000
Wataniya Insurance Company, Jeddah (equity: €62,263k; result for year: €1,767k)	10.0000
Other shareholdings as defined in Section 271(1) of the German Commercial Code (HGB)	
320 Park Avenue Holdings LLC, Wilmington, Delaware[6] (equity: €160,317k; result for year: €0k)	25.0000
Acko Technology & Services Private Limited, Bangalore (equity: €61,980k; result for year: −€38,035k)	5.0000
Admiral Group Plc, Cardiff (equity: €130,777k; result for year: €506,892k)	4.9900
At-bay Inc., Wilmington, Delaware (equity: €48,996k; result for year: −€14,038k)	3.9000
Autobahn Tank & Rast Gruppe GmbH & Co. KG, Bonn (equity: €11,537k; result for year: −€183,284k)	9.9980
Autobahn Tank & Rast Management GmbH, Bonn (equity: €41k; result for year: €17k)	10.0020
B3i Services AG, Zurich (equity: €16,309k; result for year: −€8,870k)	2.7705
Babylon Holdings Limited, St. Helier (equity: €50,651k; result for year: −€130,030k)	0.3700
Bought by Many Ltd, London (equity: €49,863k; result for year: −€22,709k)	10.1400
CBRE U.S. Core Partners Parallel Limited Partnership, Wilmington, Delaware[6] (equity: €30,477k; result for year: €893k)	99.9000
Craigmore Permanent Crop LP, Christchurch[6] (equity: €130,895k; result for year: −€931k)	44.1121
Deutsches Forschungszentrum für Künstliche Intelligenz GmbH, Kaiserslautern (equity: €27,764k; result for year: €4,655k)	2.5000
Earlybird DWES Fund VII GmbH & Co. KG, Munich (equity: €36,519k; result for year: €0k)	20.0000
Fair Financial Corp., Wilmington, Delaware (equity: −€147,268k; result for year: −€183,734k)	1.1100
FIA Timber Partners II LP, Wilmington, Delaware[6] (equity: €122,228k; result for year: €1,249k)	39.0800
Forge Global Inc., Lewes, Delaware (equity: €197,484k; result for year: −€3,635k)	3.1900
Fraugster Services GmbH, Berlin (equity: €4,820k; result for year: −€5,592k)	7.1952
Green Acre LLC, Wilmington, Delaware[6] (equity: €52,008k; result for year: €4,780k)	31.9361
Hancock Timberland XII LP, Wilmington, Delaware (equity: €276,256k; result for year: −€5,057k)	15.1500
heal.capital I GmbH & Co. KG, Berlin (equity: €7,825k; result for year: −€2,254k)	15.8888
Helium Systems Inc., Dover, Delaware (equity: €7,636k; result for year: −€3,661k)	5.0300
Hippo Analytics Inc., Wilmington, Delaware (equity: €123,095k; result for year: −€11,350k)	1.2980
IK Objekt Bensheim Immobilienfonds GmbH & Co. KG, Düsseldorf (equity: €18,135k; result for year: −€24k)	16.2445
M 31 Beteiligungsgesellschaft mbH & Co. Energie KG, Düsseldorf (equity: €1,390,785k; result for year: €69,549k)	18.6246

Company and registered seat	% share of capital
m:solarPOWER GmbH & Co. KG, Düsseldorf (equity: €531k; result for year: €112k)	0.0000
MS Immobilien-Fonds Objekt Leipzig GmbH & Co. KG, Stuttgart (equity: €28,868k; result for year: €534k)	0.1923
Nürnberger Beteiligungs AG, Nuremberg (equity: €716,243k; result for year: €46,012k)	19.1038
Olivia Holdings LLC, Wilmington, Delaware (equity: €1,336,555k; result for year: −€21,626k)	8.8000
Parametrix Group Holdings Inc., Wilmington, Delaware (equity: €1,470k; result for year: −€1,827k)	5.0000
PRORENDITA DREI GmbH & Co. KG, Düsseldorf (equity: €1,962k; result for year: −€295k)	0.0260
PRORENDITA FÜNF GmbH & Co. KG, Düsseldorf (equity: €4,943k; result for year: −€300k)	0.0384
PRORENDITA VIER GmbH & Co. KG, Düsseldorf (equity: €3,940k; result for year: −€389k)	0.0029
Ridecell Inc., Wilmington, Delaware (equity: €1,199k; result for year: −€4,626k)	2.4980
RMS Forest Growth International LP, George Town, Grand Cayman[6] (equity: €15,502k; result for year: −€3,804k)	43.4700
Slice Labs Inc., Ottawa, Ontario (equity: €705k; result for year: −€3,761k)	8.2000
Solarpark 1000 Jahre Fürth GmbH & Co. KG, Düsseldorf (equity: €694k; result for year: €111k)	0.9091
T&R MLP GmbH, Bonn (equity: €29k; result for year: €13k)	10.0020
T&R Real Estate GmbH, Bonn (equity: €140,869k; result for year: −€30k)	10.0020
Team8 Capital I LP, George Town, Grand Cayman (equity: €46,457k; result for year: −€2,585k)	3.3300
Team8 Partners II LP, George Town, Grand Cayman (equity: €55,543k; result for year: −€4,639k)	8.5300
Ticker Limited, London (equity: −€1,839k; result for year: −€2,670k)	15.0000
Trov Inc., Wilmington, Delaware (equity: −€8,227k; result for year: −€12,709k)	10.5800
welivit TOP SOLAR GmbH & Co. KG, Düsseldorf (equity: €87k; result for year: €46k)	0.0000
Zeguro Inc., Wilmington, Delaware (equity: −€2,435k; result for year: −€2,322k)	4.1300

1 Munich Reinsurance Company or one of its consolidated subsidiaries is a fully liable partner in this company.
2 This fully consolidated German subsidiary with the legal form of a partnership, as defined in Section 264a of the German Commercial Code (HGB), intends to fulfil the conditions required pursuant to Section 264b of the Commercial Code and, in the 2021 financial year, to avail itself of the relevant provision exempting it from preparing annual financial statements. As defined in Section 291 of the Commercial Code, this Group financial statement also exempts the subsidiary from the potential requirement to publish consolidated financial statements pursuant to Section 290 of the Commercial Code.
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 2021 financial year, to avail itself of the relevant provision exempting it from preparing annual financial statements. As defined in Section 291 of the Commercial Code, this Group financial statement also exempts the subsidiary from the potential requirement to publish consolidated financial statements pursuant to Section 290 of the Commercial Code.
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, 7 March 2022.

The Board of Management

The auditor’s report reproduced below includes a “Report on the assurance on the electronic rendering of the consolidated financial statements and the combined management report for publication purposes in accordance with Section 317(3a) of the Commercial Code (HGB)” (“separate report on ESEF compliance”). The subject matter (ESEF documents) to which the separate report on ESEF compliance relates is not attached. The assured ESEF documents can be inspected in, or retrieved from, the Bundesanzeiger [German Federal Gazette].

Translation from the German language of 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 2021, 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 2021 to 31 December 2021, and Notes to the financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München for the financial year from 1 January 2021 to 31 December 2021. In compliance with German legal requirements, we have not audited the Group Statement on Corporate Governance which is published on the website referenced in the combined management report and is part of the combined management report, or the content of the Group non-financial statement included in section “Combined non-financial statement” of the combined management report. We have not audited corporate information that is not part of the Group annual report and is referenced in the “Munich Re Group”, “Financial position” and “Munich Reinsurance Company (information reported on the basis of German accountancy rules)” sections of the combined management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e(1) of the German Commercial Code [Handelsgesetzbuch, HGB] and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2021 and of its financial performance for the financial year from 1 January 2021 to 31 December 2021, and

- the accompanying combined management report as a whole provides an appropriate view of the Group’s position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the combined management report does not cover the above-mentioned Group Statement on Corporate Governance or the Group non-financial statement.

Pursuant to Section 322(3) sentence 1 of the Commercial Code (HGB), we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements or of the combined management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with Section 317 of the Commercial Code (HGB) and the EU Audit Regulation No. 537/2014 (referred to subsequently as “EU Audit Regulation”) and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the “Auditor’s responsibilities for the audit of the consolidated financial statements and of the combined management report” section of our auditor’s report. We are independent of the Group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10(2)(f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5(1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the combined management report.

Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January 2021 to 31 December 2021. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

Below, we describe what we consider to be the key audit matters:

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

Reasons for the designation as a key audit matter

The provision for outstanding claims in property-casualty business concerns the segments Property-casualty reinsurance, ERGO Property-casualty Germany, and ERGO International. This provision includes, among other things, the partial loss provision for known and unknown claims; it is calculated on the basis of an empirical value and by using actuarial techniques and statistical methods. In this context, past experience is used as a basis for making assumptions about premiums and ultimate loss ratios, as well as the time frames, factors and speed of claims settlement. Management determines the amount of the provision for outstanding claims based on the results of the actuarial techniques and additional information regarding the uncertainties associated with the calculations. The assessment of major losses is regarded separately in calculating the provision for outstanding claims.

Determining the provision for outstanding claims is subject to uncertainty and judgement, as the provision is largely based on estimates and assumptions. Uncertainties in estimation arise in particular from the occurrence, amount, and speed of settlement of major losses; long-term claims development and special loss scenarios (including third-party liability, particularly asbestos and environmental liability claims), and losses in connection with the COVID-19 pandemic. We have therefore designated the measurement of the provision for outstanding claims as a key audit matter. In addition, the provision for outstanding claims in property-casualty business is a material liability item in the consolidated balance sheet.

Auditor's response

As part of our audit, we gained an understanding of the process of determining the provision for outstanding claims in property-casualty business. We also tested the effectiveness of the controls implemented for ensuring the completeness and accuracy of the recognition and measurement of claims.

We assessed the suitability of the actuarial techniques and methods utilised, as well as the derivation and transparency of key assumptions used, including loss ratios and assumptions with regard to claims settlement.

For the purpose of assessing the quality of estimates, we analysed the actual development of the previous year's provision for outstanding claims based on the run-off results.

We applied mathematical and statistical methods to generate our own loss projections for certain segments based on risk considerations. We first calculated a best estimate and defined an appropriate range based on statistical probabilities, and then compared these with management's calculations.

In addition, we compared the reserve level at the end of the reporting period with the previous year's level, and verified adjustments made to the actuarial estimate. In this context, we analysed the documentation of the underlying calculations or qualitative rationale.

As part of substantive audit procedures, we verified the calculation of the provisions for major losses on the basis of selecting specific items, taking into account the information and data available at the end of the reporting period. In the case of losses in connection with the COVID-19 pandemic, we assessed the measurement of the provisions based on contractual agreements.

With regard to measurement of the provisions for asbestos and environmental liability claims, we verified the procedures for validating the reserve level and re-calculated certain methods. We furthermore reconciled the comparative figures used with market studies available to the general public.

We engaged our own specialists with knowledge of actuarial science in our audit.

Our audit has not led to any reservations relating to the measurement of the provision for outstanding claims in property-casualty business.

Reference to related disclosures

The information on the accounting and measurement policies used is disclosed in the section "Equity and liabilities – C Gross technical provisions" in the Notes to the consolidated financial statements. In addition, the use of estimates and assumptions is explained in the section Recognition and measurement, Use of judgements and estimates in recognition and measurement. Moreover, there is further information on the line items in section (22) Provision for outstanding claims. Risk information can be found in the section (40) Disclosures on risks from property-casualty insurance business in the Notes to the consolidated financial statements, and in the section Risk report in the combined management report.

Measurement of the provision for future policy benefits, the provision for outstanding claims, and deferred acquisition costs in life and health business

Reasons for the designation as a key audit matter

The provisions in life and health business concern the segments life and health reinsurance, ERGO Life and Health Germany, and ERGO International, and mainly comprise the provision for future policy benefits and the provision for outstanding claims. The measurement of the provision for future policy benefits is dependent on a number of assumptions, particularly relating to mortality, disability, morbidity, interest-rate development, lapse rates, costs, administration expenses and discount rates. Particularly because the assumptions are generally not based on observable market inputs, the determination or revision of the assumptions is subject to uncertainty and judgement. Additional uncertainties arise in connection with the COVID-19 pandemic.

The provision for outstanding claims in life and health reinsurance is determined on the basis of information from the cedants and/or on the basis of actuarial techniques that require estimates and assumptions.

A liability adequacy test is used to verify the adequacy of the provision for future policy benefits and the recoverability of deferred acquisition costs. The liability adequacy test is conducted on the basis of current assumptions.

This has been designated a key audit matter due to the estimations involved and the corresponding judgements in measurement. In addition, the provision for future policy benefits and the provision for outstanding claims in life and health business are material liability items in the consolidated balance sheet.

Auditor's response

As part of our audit, we gained an understanding of the processes of determining the provision for future policy benefits, the provisions for outstanding claims, and the deferred acquisition costs. We also tested the effectiveness of the controls implemented within the processes.

In addition, we methodically verified the actuarial techniques used to derive the key assumptions that are utilised to determine the provision for future policy benefits. We also analysed the discount rates used.

For the purpose of assessing the quality of the estimates for the provision for future policy benefits, we compared the results expected by the Company for the individual business units with the actual results and assessed them against our expectations based on market developments.

We performed our own calculation of the provision for future policy benefits on the basis of a risk-based sample of sub-portfolios and tariffs, and compared our results with those of the management.

We assessed the derivation and appropriateness of the assumptions used in the adequacy test.

We verified the provisions for outstanding claims on the basis of the cedants' account statements. Where the provisions for outstanding claims were measured using statistical methods, we generated our own actuarial projections for selected lines of business and compared them with the carrying amounts of the provisions.

In the case of losses in connection with the COVID-19 pandemic – and particularly in life reinsurance in the United States – we assessed whether the Company is affected by the losses based on contractual agreements, and also assessed the measurement of the provisions.

We engaged our own specialists with knowledge of actuarial science in our audit.

Our audit has not led to any reservations relating to the measurement of the provision for future policy benefits, the provision for outstanding claims or the deferred acquisition costs in life and health business.

Reference to related disclosures

The information on the accounting and measurement policies used is disclosed in the section "Equity and liabilities – C Gross technical provisions" in the Notes to the consolidated financial statements. In addition, the use of estimates and assumptions is explained in the section Recognition and measurement, Use of judgements and estimates in recognition and measurement. Moreover, there is further information on the line items in section (13) Deferred acquisition costs and (21) Provision for future policy benefits. Risk information can be found in section (39) Disclosures on risks from life and health insurance business in the Notes to the consolidated financial statements, and in the section Risk report in the combined management report.

Valuation of unlisted investments

Reasons for the designation as a key audit matter

The fair values of unlisted investments are primarily determined by using valuation models or values assessed by third parties. The primary parameters used are observable market inputs, such as duration-based yield curves and credit spreads. This applies particularly to the fair value measurement of unlisted fixed-interest securities, infrastructure loans, other loans, and derivatives. In addition, unobservable inputs are used to measure certain investments – particularly land and buildings, real estate funds, investments in private equity funds, and alternative direct investments (such as infrastructure). The valuation models selected and the assumptions about inputs defined are judgemental. The greater the number of inputs used that are not observable in the market but are instead based on internal estimates, the greater the scope for judgement.

The valuation of unlisted investments has been designated a key audit matter due to the judgements used in selecting the valuation models and the assumptions to be made with regard to the significant inputs. Moreover, unlisted investments contribute a substantial share of the investments line item in the consolidated balance sheet.

Auditor's response

As part of our audit, we gained an understanding of the processes of the valuation of unlisted investments. We also tested the effectiveness of the controls implemented within the processes.

We assessed whether the valuation models used ensured a reliable determination of fair values. In addition, we examined the key valuation parameters as to whether the significant valuation parameters used and observed in the market (yield curves and credit spreads) had been derived in a comprehensible manner. We assessed the suitability of unobservable inputs by having valuation specialists make their own calculations in order to verify the fair values.

In the case of registered bonds and borrowers' note loans, we verified on the basis of a sample whether the credit spreads relevant to the valuation had been applied consistently within the portfolio and to the remaining term to maturity. We also performed own fair value calculations for a sample of registered bonds and borrowers' note loans (including embedded derivatives) and compared them with those made by the Company.

In addition, we performed our own fair value calculations for some derivatives on a sample basis and compared the fair values with those determined by the Company.

Moreover, we verified the fair value measurements of alternative direct investments on the basis of a sample, and assessed the calculation parameters used in consideration of the investment-specific circumstances. We compared the fair values of sub-portfolios of indirectly held real estate investments and of investments in private equity funds with external information. In the case of directly held real estate investments, we verified the measurements made on the basis of samples.

Our audit has not led to any reservations relating to the valuation of the unlisted investments.

Reference to related disclosures

The information on the accounting and valuation policies used is disclosed in the section "Assets – B Investments" in the Notes to the consolidated financial statements. In addition, the use of estimates and assumptions is explained in the section "Recognition and measurement, Use of judgements and estimates in recognition and measurement". Moreover, further information on the individual instruments can be found in the section "Notes to the consolidated balance sheet – Assets". Information about market risk and credit risk can be found in the section "Risk report" in the combined management report.

Other information

The Supervisory Board is responsible for the report of the Supervisory Board. Management and the Supervisory Board are responsible for the Declaration of Conformity with the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act (AktG), which is part of the Group Statement on Corporate Governance. Management is otherwise responsible for the other information. The other information comprises the above-mentioned Group Statement on Corporate Governance and Group non-financial statement. In addition, the other information comprises other parts of the Group annual report of which we received a version before issuing this auditor's report, in particular:

- Munich Re at a glance
- Letter to shareholders
- Responsibility statement

but not the consolidated financial statements, the disclosures in the combined management report covered by our audit, or our auditor's report.

Our opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the combined management report, or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of management and the Supervisory Board for the consolidated financial statements and the combined management report

Management is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e(1) of the Commercial Code (HGB) and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, management is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is responsible for the preparation of the combined management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the combined management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 of the Commercial Code (HGB) and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgement and maintain professional scepticism throughout the audit. We also do the following:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e(1) of the Commercial Code (HGB).

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our opinions.

- Evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by management in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any 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 about the matter.

Other legal and regulatory requirements

Report on the assurance on the electronic rendering of the consolidated financial statements and the combined management report for publication purposes in accordance with Section 317(3a) of the Commercial Code (HGB)

Opinion

We have performed assurance work in accordance with Section 317(3a) of the Commercial Code (HGB) to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the combined management report (hereinafter the "ESEF documents") contained in the electronic file Munich_Re_ESEF-2021-12-31.zip (SHA-256 checksum: 83c5ef6fa695b97e5f00a 3335b83ec7d1e213d90e68ff33b251d5854d3e5dbd4) and prepared for publication purposes complies in all material respects with the requirements of Section 328(1) of the Commercial Code (HGB) concerning the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance extends only to the conversion into ESEF format of the information contained in the consolidated financial statements and the combined management report and therefore relates neither to the information contained in this rendering nor to any other information contained in the file identified above.

In our opinion, the rendering of the consolidated financial statements and the combined management report contained in the file identified above and prepared for publication purposes complies in all material respects with the requirements of Section 328(1) of the Commercial Code (HGB) for the electronic reporting format. Beyond this reasonable assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying combined management report for the financial year from 1 January 2021 to 31 December 2021 contained in the above "Auditor's report on the consolidated financial statements and on the combined management report", we do not express any opinion on the information contained within these renderings or on any other information contained in the file identified above.

Basis for the opinion

We conducted our assurance work on the rendering of the consolidated financial statements and the combined management report contained in the file identified above in accordance with Section 317(3a) of the Commercial Code (HGB) and the IDW Assurance Standard: Assurance on the Electronic Rendering of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB (IDW AsS 410 (10.2021)). Our responsibility in accordance therewith is further described in the "Group auditor's responsibilities for the assurance work on the ESEF documents" section. Our audit firm has applied IDW Standard on Quality Management 1: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibilities of management and the Supervisory Board for the ESEF documents

Company management is responsible for the preparation of the ESEF documents, including the electronic rendering of the consolidated financial statements and the combined management report in accordance with Section 328(1) sentence 4, no. 1 of the Commercial Code (HGB) and for the tagging of the consolidated financial statements in accordance with Section 328(1) sentence 4, no. 2 of the Commercial Code (HGB).

In addition, company management is responsible for such internal control as they have determined necessary to enable the preparation of ESEF documents that are free from material non-compliance – intentional or unintentional – with the requirements of Section 328(1) of the Commercial Code (HGB) for the electronic reporting format.

The Supervisory Board is responsible for overseeing the process for preparing the ESEF documents as part of the financial reporting process.

Group auditor's responsibilities for the assurance work on the ESEF documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material non-compliance – intentional or unintentional – with the requirements of Section 328(1) of the Commercial Code (HGB). We exercise professional judgement and maintain professional scepticism throughout the assurance work. We also:

- Identify and assess the risks of material non-compliance – intentional or unintentional – with the requirements of Section 328(1) of the Commercial Code (HGB); design and perform assurance procedures responsive to those risks; and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.

- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.

- Evaluate the technical validity of the ESEF documents, i.e. whether the file containing the ESEF documents meets the requirements of Commission Delegated Regulation (EU) 2019/815, in the version in force at the date of the financial statements, on the technical specification for this file.

- Evaluate whether the ESEF documents enable XHTML rendering with content equivalent to the audited consolidated financial statements and to the audited combined management report.

- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) pursuant to Articles 4 and 6 of the Commission Delegated Regulation (EU) 2019/815 in the version in force at the date of the financial statements enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further information pursuant to Article 10 of the EU Audit Regulation

We were elected as Group auditor by the Supervisory Board at its meeting on 16 March 2021. We were engaged by the Chair of the Audit Committee of the Supervisory Board on 9 August 2021. We have been the Group auditor of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München without interruption since the 2020 financial year.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the Audit Committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

Other matters – Use of the auditor's report

Our auditor's report must always be read together with the audited consolidated financial statements and audited combined management report as well as the assured ESEF documents. The consolidated financial statements and combined management report converted to ESEF format – including the versions to be published in the Bundesanzeiger [German Federal Gazette] – are merely electronic renderings of the audited consolidated financial statements and the audited combined management report and do not take their place. In particular the ESEF report and our assurance opinion contained therein are to be used solely together with the assured ESEF documents made available in electronic format.

German Public Auditor responsible for the engagement

The German Public Auditor responsible for the engagement is Dr. Thomas Kagermeier.

Munich, 7 March 2022

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Dr. Ott	**Dr. Kagermeier**
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

Independent auditor’s report on a limited assurance engagement

The assurance engagement performed by Ernst & Young (EY) relates exclusively to the German version of the non-financial statement 2021 of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München. The following text is a translation of the original German Independent Assurance Report.

To Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München, München

We have performed a limited assurance engagement on the non-financial statement included in the section “Combined non-financial statement” of the management report of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München, München, (hereinafter the “Company”), which is combined with the non-financial statement of the Group, as well as the section “Munich Re Group” of the Group management report incorporated by reference, for the period from 1 January to 31 December 2021 (hereinafter the “non-financial statement”).

Not subject to our assurance engagement are other references to disclosures made outside the non-financial statement as well as prior-year disclosures.

Responsibilities of the executive directors

The executive directors of the Company are responsible for the preparation of the non-financial statement in accordance with Sec. 315c in conjunction with Secs. 289c to 289e HGB [“Handelsgesetzbuch”: German Commercial Code] and Art. 8 of Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (hereinafter the “EU Taxonomy Regulation”) and the Delegated Acts adopted thereunder as well as in accordance with their own interpretation of the wording and terms contained in the EU Taxonomy Regulation and the Delegated Acts adopted thereunder as set out in various sections of the non-financial statement.

These responsibilities include the selection and application of appropriate non-financial reporting methods and making assumptions and estimates about individual non-financial disclosures that are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal control as the executive directors consider necessary to enable the preparation of a non-financial statement that is free from material misstatement, whether due to fraud (manipulation of the non-financial statement) or error.

The EU Taxonomy Regulation and the Delegated Acts adopted thereunder contain wording and terms that are still subject to considerable interpretation uncertainties and for which clarifications have not yet been published in every case. Therefore, the executive directors have disclosed their interpretation of the EU Taxonomy Regulation and the Delegated Acts adopted thereunder in various sections of the non-financial statement. They are responsible for the defensibility of this interpretation. Due to the immanent risk that undefined legal terms may be interpreted differently, the legal conformity of the interpretation is subject to uncertainties.

Independence and quality assurance of the auditor’s firm

We have complied with the German professional requirements on independence as well as other professional conduct requirements.

Our audit firm applies the national legal requirements and professional pronouncements – in particular the BS WP/vBP [“Berufssatzung für Wirtschaftsprüfer/vereidigte Buchprüfer”: Professional Charter for German Public Accountants/German Sworn Auditors] in the exercise of their Profession and the IDW Standard on Quality Management issued by the Institute of Public Auditors in Germany (IDW): Requirements for Quality Management in the Audit Firm (IDW QS 1) and accordingly maintains a comprehensive quality management system that includes documented policies and procedures with regard to compliance with professional ethical requirements, professional standards as well as relevant statutory and other legal requirements.

Responsibilities of the auditor

Our responsibility is to express a conclusion with limited assurance on the non-financial statement based on our assurance engagement.

We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information" issued by the IAASB. This standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether any matters have come to our attention that cause us to believe that the Company's non-financial statements are not prepared, in all material respects, in accordance with Sec. 315c in conjunction with Secs. 289c to 289e HGB and the EU Taxonomy Regulation and the Delegated Acts adopted thereunder as well as the interpretation by the executive directors disclosed in various sections of the non-financial statement. Not subject to our assurance engagement are other references to disclosures made outside the non-financial statement as well as prior-year disclosures.

In a limited assurance engagement, the procedures performed are less extensive than in a reasonable assurance engagement, and, accordingly, a substantially lower level of assurance is obtained. The selection of the assurance procedures is subject to the professional judgement of the auditor.

In the course of our assurance engagement we have, among other things, performed the following assurance procedures and other activities:

- Gain an understanding of the structure of the sustainability organisation and stakeholder engagement
- Inquiries of employees regarding the selection of topics for the non-financial statement, the risk assessment and the policies of the Company and the Group for the topics identified as material
- Inquiries of employees involved in the preparation of the non-financial statement about the preparation process, about the internal control system related to this process, and about disclosures in the non-financial statement
- Inquiries of employees responsible for data capture and consolidation as well as the preparation of the non-financial statement, to evaluate the reporting system, the data capture and compilation methods as well as internal controls to the extent relevant for the assurance of the disclosures in the non-financial statement
- Identification of likely risks of material misstatement in the non-financial statement
- Inspection of relevant documentation of the systems and processes for compiling, aggregating and validating data
- Analytical procedures on selected disclosures in the non-financial statement at the level of the Company and the Group
- Inquiries and inspection of documents on a sample basis relating to the collection and reporting of selected data
- Evaluation of the presentation of the non-financial statement
- Reconciliation of selected disclosures with the corresponding data in the annual financial statements and management report
- Evaluation of the process to compile the disclosures according to the EU Taxonomy Regulation in the non-financial statement

In determining the disclosures in accordance with Art. 8 of the EU Taxonomy Regulation, the executive directors are required to interpret undefined legal terms. Due to the immanent risk that undefined legal terms may be interpreted differently, the legal conformity of their interpretation and, accordingly, our assurance engagement thereon are subject to uncertainties.

Assurance conclusion

Based on the assurance procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the non-financial statement of the Company for the period from 1 January to 31 December 2021 is not prepared, in all material respects, in accordance with Sec. 315c in conjunction with Secs. 289c to 289e HGB and the EU Taxonomy Regulation and the Delegated Acts adopted thereunder as well as the interpretation by the executive directors as disclosed in various sections of the non-financial statement.

We do not express an assurance conclusion on the other references to disclosures made outside the non-financial statement or prior-year disclosures.

Restriction of use

We draw attention to the fact that the assurance engagement was conducted for the Company's purposes and that the report is intended solely to inform the Company about the result of the assurance engagement. As a result, it may not be suitable for another purpose than the aforementioned. Accordingly, the report is not intended to be used by third parties for making (financial) decisions based on it. Our responsibility is to the Company alone. We do not accept any responsibility to third parties. Our assurance conclusion is not modified in this respect.

General Engagement Terms and liability

The "General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms]" dated 1 January 2017 are applicable to this engagement and also govern our relations with third parties in the context of this engagement (www.de.ey.com/general-engagement-terms). In addition, please refer to the liability provisions contained there in no. 9 and to the exclusion of liability towards third parties. We accept no responsibility, liability or other obligations towards third parties unless we have concluded a written agreement to the contrary with the respective third party or liability cannot effectively be precluded.

We make express reference to the fact that we will not update the report to reflect events or circumstances arising after it was issued, unless required to do so by law. It is the sole responsibility of anyone taking note of the summarised result of our work contained in this report to decide whether and in what way this information is useful or suitable for their purposes and to supplement, verify or update it by means of their own review procedures.

Munich, 7 March 2022

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Dr. Kagermeier	**Welz**
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

Responsibility statement

"To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the combined management report for Münchener 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, 16 March 2022

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Dr. Thomas Blunck

Nicholas Gartside

Stefan Golling

Dr. Doris Höpke

Dr. Torsten Jeworrek

Dr. Christoph Jurecka

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Münchener Rückversicherungs-Gesellschaft (Munich Reinsurance Company) is a reinsurance company organised under the laws of Germany. In some countries, including the United States, Munich Reinsurance Company holds the status of an unauthorised reinsurer. Policies are underwritten by Munich Reinsurance Company or its affiliated insurance and reinsurance subsidiaries. Certain coverages are not available in all jurisdictions.

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The official German original of this report is also available from the Company. In addition, you can find our annual and interim reports, along with further information about Munich Re and its shares, on the internet at www.munichre.com.

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Quarterly figures

		31.12.2021	30.9.2021	30.6.2021	31.3.2021
Balance sheet					
Investments (incl. insurance-related investments)	€m	252,583	248,736	245,742	242,858
Equity	€m	30,945	30,055	29,920	29,392
Net technical provisions	€m	234,044	231,718	227,287	225,139
Balance sheet total	€m	312,405	310,724	303,980	300,938
Shares					
Share price	€	260.50	236.90	230.95	262.60
Munich Reinsurance Company's market capitalisation	€bn	36.5	33.2	32.4	36.8
Other					
Combined ratio					
Reinsurance property-casualty	%	96.4	112.8	90.1	98.9
ERGO Property-casualty Germany	%	87.6	95.6	92.6	94.2
ERGO International	%	93.1	92.3	92.2	93.8
Number of staff		**39,281**	**39,341**	**40,607**	**39,741**

€m	Total	Q4 2021	Q3 2021	Q2 2021	Q1 2021
Gross premiums written	**59,567**	**14,894**	**15,480**	**14,642**	**14,551**
1. Earned premiums					
Gross	57,597	15,430	14,657	14,251	13,258
Ceded	–2,396	–594	–691	–623	–488
Net	55,202	14,836	13,967	13,628	12,771
2. Income from technical interest	5,783	1,292	1,350	1,574	1,566
3. Expenses for claims and benefits					
Gross	–46,957	–11,595	–12,957	–11,254	–11,152
Ceded share	1,574	282	567	363	362
Net	–45,383	–11,313	–12,390	–10,890	–10,790
4. Operating expenses					
Gross	–14,111	–4,058	–3,537	–3,342	–3,174
Ceded share	437	90	135	105	107
Net	–13,674	–3,968	–3,402	–3,238	–3,067
5. Technical result (1–4)	**1,927**	**848**	**–475**	**1,074**	**480**
6. Investment result	**7,156**	**1,425**	**2,107**	**1,933**	**1,691**
Thereof: Associates and joint ventures accounted for using the equity method	219	86	1	86	46
7. Insurance-related investment result	1,119	286	68	352	413
8. Other operating income	1,203	426	311	226	241
9. Other operating expenses	–2,106	–732	–456	–457	–461
10. Deduction of income from technical interest	–5,783	–1,292	–1,350	–1,574	–1,566
11. Non-technical result (6–10)	**1,590**	**114**	**678**	**481**	**318**
12. Operating result	**3,517**	**962**	**204**	**1,554**	**798**
13. Other non-operating result	–91	–52	–18	–9	–12
14. Currency result	262	160	242	–117	–23
15. Net finance costs	–205	–48	–45	–53	–59
16. Taxes on income	–552	–150	–18	–270	–114
17. Consolidated result	**2,932**	**871**	**366**	**1,106**	**589**
Thereof: Attributable to Munich Reinsurance Company equity holders	2,933	868	365	1,106	594
Attributable to non-controlling interests	–1	3	1	0	–5

€	Total	Q4 2021	Q3 2021	Q2 2021	Q1 2021
Earnings per share	**20.93**	**6.20**	**2.61**	**7.89**	**4.24**

Important dates 2022

23 February 2022
Balance sheet media conference for 2021 consolidated financial statements (preliminary figures)

17 March 2022
Publication of the Group Annual Report 2021

28 April 2022
Annual General Meeting

10 May 2022
Quarterly Statement as at 31 March 2022

9 August 2022
Half-Year Financial Report as at 30 June 2022

8 November 2022
Quarterly Statement as at 30 September 2022

Important dates 2023

23 February 2023
Balance sheet media conference for 2022 consolidated financial statements (preliminary figures)

16 March 2023
Publication of the Group Annual Report 2022

5 May 2023
Annual General Meeting

10 May 2023
Quarterly Statement as at 31 March 2023

10 August 2023
Half-Year Financial Report as at 30 June 2023

8 November 2023
Quarterly Statement as at 30 September 2023

Münchener Rückversicherungs-Gesellschaft
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