Group Annual Report 2016
Munich Re

2016

WE PROGRESS AS ONE

Key figures (IFRS)

Munich Re at a glance

» Key figures (IFRS) – Munich Re at a glance (XLS, 45 KB)

		2016	2015	2014	2013	2012
Gross premiums written	€bn	48.9	50.4	48.8	51.1	52.0
Net earned premiums	€bn	47.1	48.3	47.4	49.2	50.5
Net expenses for claims and benefits	€bn	–38.5	–38.7	–39.7	–39.9	–41.0
Net operating expenses	€bn	–12.3	–12.4	–12.0	–12.4	–12.6
Operating result	€m	4,025	4,819	4,027	4,398	5,349
Taxes on income	€m	–760	–476	312	–108	–878
Consolidated result	€m	2,581	3,122	3,170	3,333	3,204
Attributable to non-controlling interests	€m	1	15	18	29	16
Earnings per share	€	16.13	18.73	18.31	18.45	17.94
Dividend per share	€	8.60	8.25	7.75	7.25	7.00
Dividend payout	€m	1,338	1,329	1,293	1,254	1,255
Share price at 31 December	€	179.65	184.55	165.75	160.15	136.00
Munich Re's market capitalisation at 31 December[1]	€bn	28.9	30.8	28.7	28.7	24.4
Carrying amount per share	€	200.86	188.40	178.13	146.15	152.34
Investments	€bn	219.4	215.1	218.9	202.2	213.8
Insurance-related investments	€bn	9.6	9.2	8.5	7.3	
Equity	€bn	31.8	31.0	30.3	26.2	27.4
Return on equity	%	8.1	10.0	11.3	12.5	12.5
Off-balance-sheet unrealised gains and losses[2]	€bn	17.3	16.0	17.4	8.7	11.0
Net technical provisions	€bn	202.2	198.5	198.4	187.7	186.1
Balance sheet total[3]	€bn	267.8	268.9	265.6	254.3	258.4
Staff at 31 December		43,428	43,554	43,316	44,665	45,437

Reinsurance

» Key figures (IFRS) – Reinsurance (XLS, 43 KB)

		2016	2015	2014	2013	2012
Gross premiums written	€bn	27.8	28.2	26.8	27.8	28.2
Investments (incl. insurance-related investments)	€bn	88.9	89.2	88.0	79.2	83.8
Net technical provisions	€bn	65.5	65.4	63.5	60.5	61.1
Major losses (net)	€m	–1,542	–1,046	–1,162	–1,689	–1,799
Natural catastrophe losses	€m	–929	–149	–538	–764	–1,284
Combined ratio property-casualty	%	95.7	89.7	92.7	92.1	91.0

ERGO

» Key figures (IFRS) – ERGO (XLS, 41 KB)

		2016	2015	2014	2013	2012
Gross premiums written	€bn	16.0	16.5	16.7	16.7	17.1
Investments (incl. insurance-related investments)	€bn	135.4	131.0	135.5	126.7	124.9
Net technical provisions	€bn	133.6	130.3	132.4	125.1	122.8
Combined ratio property-casualty Germany	%	97.0	97.9	95.3	96.7	98.0
Combined ratio International	%	99.0	104.7	97.3	98.7	99.8

Munich Health

» Key figures (IFRS) – Munich Health (XLS, 42 KB)

		2016	2015	2014	2013	2012
Gross premiums written	€bn	5.0	5.6	5.3	6.6	6.7
Investments (incl. insurance-related investments)	€bn	4.7	4.1	3.9	3.6	4.2
Net technical provisions	€bn	3.2	2.8	2.5	2.2	2.2
Combined ratio[4]	%	98.5	99.9	98.8	98.3	100.2

1 For 2013, 2014, 2015 and 2016, this contains treasury shares earmarked for retirement.
2 Including those apportionable to minority interests and policyholders.
3 Previous years' figures adjusted owing to IAS 8; see "Changes in accounting policies and other adjustments".
4 Excluding health insurance conducted like life insurance.

Contents

Group Annual Report 2016

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

Due to rounding, there may be minor deviations in summations and in the calculation of percentages in the present 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. Nikolaus von Bomhard
Chairman of Munich Reinsurance Company's Board of Management

Dear Shareholders,

Like any shareholder, you must ask yourself from time to time: have I invested my money in the right company?

The quality of a company becomes evident not in boom years, but when things become more difficult. Munich Re has been experiencing a challenging period for some time now – due to continuing low-interest-rate policies, and the consequential intensive competition on the reinsurance markets. Since 2012, these two effects alone have had an overall negative impact of over €1bn on our profits. Nevertheless, Munich Re has posted rather good results in recent years, without having to veer away from its path of sustainable development.

The same is true for 2016. A profit of €2.6bn is pleasing, and falls within the upper half of the profit guidance of €2.3–2.8bn we forecast at the start of the year. This result allows us to propose an increase in the dividend to €8.60 per share. Munich Re is adhering to its shareholder-friendly and sustainable dividend policy. We are confident that we will be able to sustain this higher level in the future.

On the one hand, this confidence rests on the strength of our balance sheet. The solvency ratio is above average at 267%, and our investments show valuation reserves of €28bn. We continue to take a conservative approach when measuring our assets and liabilities, particularly the loss reserves that are so important for us. As before, the settlement of claims and regular restructuring of investments should generate profits over time. In these challenging and uncertain times, we do not have unrealistically high financial targets that require us to erode our financial substance. You can be sure of that.

On the other hand, our confidence is also based on changes that we have already introduced which will have a positive impact on the consolidated result in the future. First, I would like to mention our initiatives in the areas of innovation and digitalisation. In recent years, we have built up a potent innovation infrastructure, and established many partnerships with promising start-ups. Our pipeline is overflowing with new insurance products and innovative services. The digitalisation of important processes within our business is progressing well. In this year, and in the coming years, we will continue to work hard to develop as many of these innovations as possible to the point where they make a visible contribution to the Group's profits.

At ERGO, we have also introduced changes that promise significantly higher earnings potential in the future. We expect that as from 2021 primary insurance will provide an annual contribution to profits of €600m. To make this possible, we introduced the ERGO Strategy Programme last year. From the shareholders' perspective, we are investing around €1bn, in particular in infrastructure that is fit for the future. ERGO will have modern and more flexible IT systems, which will allow the opportunities offered by digitalisation to be utilised for the benefit of our clients. The Strategy Programme will also ensure a more efficient settlement of life insurance business, while accelerating development of new, attractive retirement provision products for our customers. These measures will be accompanied by a significant cost-cutting programme.

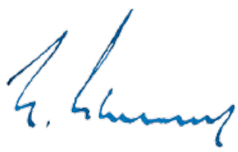
We reorganised our health business with effect from 1 February 2017. The reinsurance units of Munich Health were allocated to the Life Reinsurance division, and responsibility for health primary insurance business was transferred to ERGO. Munich Health had been doing well recently, and its contribution to the consolidated profit of around €140m for 2016 beat expectations. However, in recent years Munich Health has not been able to develop dynamically profitable growth. But the crucial point for the decision to integrate the Munich Health units into our two largest fields of business was due to the changing demand from our clients. They are increasingly less likely to ask for separate reinsurance and primary insurance solutions, and seek a cross-divisional and integrated approach to life and health business. At the same time, digitalisation and the associated potential offered by data analysis opens up new possibilities for both fields, and these can be better exploited by being combined under one roof.

Munich Re is also a company in transition. Digitalisation is shifting client and customer demand, and enabling a comprehensive reorganisation of our business. Innovative business models and partnerships that would previously not have been taken into consideration are now being set up. All this has the effect of changing our company. My successor as Chairman of the Board of Management, Joachim Wenning, will continue to drive this process forwards.

Thanks to our strong balance sheet, we are able to operate from a position of strength in difficult times such as we are currently experiencing. Thanks to the huge pool of expertise offered by our staff, we have the creative potential to set today the foundation of tomorrow’s profits.

So ask yourself again: have I invested my money in the right company? In my opinion, the answer is: yes, you certainly have!

With my warmest regards,



Nikolaus von Bomhard

Corporate governance

1

Bernd Pischetsrieder
Chairman of the
Supervisory Board

Ladies and gentlemen,

In the financial year 2016, the Supervisory Board fulfilled all the tasks and duties incumbent upon it by law and under the Articles of Association and its rules of procedure. All members of the Supervisory Board and of the committees attended more than half of the respective meetings. 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 involved the Supervisory Board in all important business transactions and decisions of fundamental significance for the Group. During meetings, we held in-depth discussions with the Board of Management about the information provided to us. Cooperation with the Board of Management was characterised in every regard by – 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 about important events in the Group, for example ERGO's Strategy Programme and modified structure. 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 Nikolaus von Bomhard, Chairman of the Board of Management, about individual questions of strategic development and risk management, as well as about Munich Re's current business situation. Also between meetings, the Chairman of the Audit Committee, Henning Kagermann, remained in close contact with Jörg Schneider, the member of the Board of Management responsible for Group reporting.

Focal points of the meetings of the full Supervisory Board

There were six meetings of the Supervisory Board in the year under review. We regularly held in-depth discussions with the Board of Management about business performance and current topics, with a special focus on strategic considerations of the Board of Management with respect to the individual fields of business. The Board of Management reported regularly on Munich Re's investments, addressing the development of the global economy and financial markets in detail, and their impact on the Group's assets and earnings. The Board also supplied us with frequent updates on the objectives and implementation of the ERGO Strategy Programme. Moreover, we took advantage of the opportunity to confer on matters involving the Board of Management even in the Board's absence. We also dealt with the following topics in the individual meetings in 2016:

The meeting on 15 March focused on the Company and Group financial statements for 2015, the combined management report, and the motions for resolution by the 2016 Annual General Meeting. Furthermore, we conferred and took decisions regarding the extension of two appointments to the Board of Management, the appointment of the new Chairman of the Board of Management, and established the personal objectives for the Board members' variable remuneration for 2016. We were also updated on the Group-wide compliance management system.

The meeting on 26 April dealt with matters involving the Board of Management, specifically the evaluation of the individual Board members' annual performance for 2015 and their multi-year performance for 2013–2015. On 27 April, directly prior to the Annual General Meeting, we heard the Board of Management's report on the present status of business performance in 2016. We also used the meeting to make last-minute preparations for the Annual General Meeting.

On 12 July, we discussed the reinsurance group's result situation in a persistently challenging market environment. Moreover, we considered the new regulations concerning the market abuse regime and adopted guidelines for handling inside information in the Supervisory Board's area of responsibility. Beyond this, we were briefed on the 2015 compensation report in accordance with the German Remuneration Regulation for Insurance Companies (VersVergV).

On 18 October, we discussed corporate governance issues including the results of the annual efficiency review, the adoption of amendments to the Audit Committee's rules of procedure to accommodate the requirements of the German Audit Reform Act (AReG), and the resolution regarding the annual Declaration of Conformity. We also took a decision regarding the extension of an appointment to the Board of Management, and the Board of Management reported on Munich Health's business performance.

After a comprehensive discussion, on 6 December we decided on remuneration for the Board of Management as from 2017. We also made decisions on changes to Board of Management contracts and guidelines on fringe benefits. We looked into the Group's risk strategy in the course of the report on Munich Re's risk situation by the Group Chief Risk Officer. The Board reported on Group planning for 2017 to 2019. In this context, we adopted changes to the rules of procedure and distribution of responsibilities for the Board of Management. The Board also presented us with the Group human resources report 2015/2016 and detailed the focal points of human resources work and workforce planning within the Group. There was also a report on Munich Re's investment management.

Work of the committees

There are five 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, information about the work of the committees was provided to the full Board by the respective Chairs of the committees.

Details of the tasks of the committees and their composition can be found in the Statement of Corporate Governance at www.munichre.com/cg-en. The members of the Supervisory Board and membership of the Supervisory Board Committees can be seen on page 17 f. and at www.munichre.com/supervisory-board.

The Personnel Committee held five meetings in the period under review. It essentially prepared the resolutions on matters involving the Board of Management already mentioned in the report on the work of the full Supervisory Board. It also dealt with seats held by members of the Board of Management on supervisory, advisory and similar boards, and with Group-wide succession planning, especially with respect to Board-level appointments.

At its four meetings in 2016, the Standing Committee dealt with the preparation of the respective Supervisory Board meetings and topics of corporate governance. In addition, the Standing Committee carried out a review of the efficiency of the Supervisory Board's work in 2016, and determined that, overall, the reporting by the Board of Management and the work of the Supervisory Board was efficient and appropriate. Regular reports by the Chairman of the Board of Management covered changes to the shareholder structure and the status of the share buy-back programme. The Committee also received the annual report on expenses for donations and sponsoring.

The Audit Committee met six times in 2016, and two of these meetings were attended by the external auditors. At the meetings attended by the auditors, the Committee discussed the Company and Group financial statements, the combined management report, the auditor's report and the Board of Management's proposal for the appropriation of the net retained profits for the financial year 2015. The Audit Committee also considered the 2016 Quarterly Statements, which it reviewed in conjunction with the auditor. The Committee heard regular reports on the current status of the Solvency II implementation project, and discussed in these meetings both initial and quarterly reporting to the Supervisory Authority. Other key tasks of the Committee consisted in monitoring the Group's risk situation and risk management on an ongoing basis, and developing a risk strategy. In addition to quarterly written reports, the Committee also obtained detailed verbal information from the Group Chief Risk Officer on several occasions, and heard reports from the head of the actuarial function. Further issues discussed regularly were the internal control system and compliance topics. The Head of Group Audit informed the members of the Committee in full about the outcome of the audits for 2015 and the audit planning for 2016. The Committee received regular updates on the current status of individual compliance issues and the progress of audits. In the absence of the Board of Management, the members of the Committee took advantage of the opportunity to confer amongst themselves or with the Head of Group Audit, the Group Chief Compliance Officer, the Group Chief Risk Officer and the external auditors. Furthermore, the Audit Committee reviewed and monitored the auditor's independence. The Committee passed guidelines on the awarding of service contracts to the auditor and conducted the approval process required under these guidelines. The Audit Committee regularly calls for reports on the auditor's new activities beyond the auditing of the annual financial statements and on the utilisation of the statutory limit for awarding such contracts. Following a resolution by the full Supervisory Board, the Chair of the Committee commissioned KPMG with the audit for the 2016 financial year, and also commissioned the auditor's review of the Half-Year Financial Report 2016.

The Nomination Committee met three times in 2016 and discussed suitable candidates for election to the Supervisory Board. In proposing nominations, the Committee took account of the objectives set by the Supervisory Board for composition of the Committee and the set of criteria, which it updated in the year under review.

There was no need to convene the Conference Committee in 2016.

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 mandatory annual Declaration of Conformity pursuant to Section 161 of the German Stock Corporation Act (AktG) in November 2016. We again complied with all recommendations of the German Corporate Governance Code, and will continue to do so in future. We confirmed the assessment that all 20 members of the Supervisory Board are to be regarded as independent and that they do not have any relevant conflicts of interests.

Details of this can be found in the Corporate Governance Report on page 15 f.

Munich Re offered the members of the Supervisory Board an internal information event in 2016. Nearly all took advantage of the opportunity to brief themselves on the objectives and tasks of the Capital Partners and Digital Partners units.

Changes in the Board of Management

Once Nikolaus von Bomhard had expressed his wish to retire after the 2017 Annual General Meeting, the Personnel Committee and the plenary sessions of the Supervisory Board intensively explored the question of his successor. On 15 March 2016, having discussed the conceivable alternatives in depth, the Supervisory Board appointed Joachim Wenning to be Nikolaus von Bomhard's successor as Chairman of the Board of Management of Munich Re with effect from 27 April 2017. Joachim Wenning has been responsible for worldwide life reinsurance business on the Board of Management since the beginning of 2009; he has also been responsible for Human Resources since 1 October 2013 and has served as Labour Relations Director since that time. With effect from 27 April 2017, in addition to his role as Chairman of the Board of Management, Joachim Wenning will also assume responsibility for the units currently reporting to Nikolaus von Bomhard. We are confident that, under the leadership of Joachim Wenning, the Board of Management is excellently equipped to meet the business challenges of the present and the future.

Changes on the Supervisory Board

With effect from the end of the 2016 Annual General Meeting, Clement B. Booth was elected to the Supervisory Board as successor to Anton van Rossum. Ann-Kristin Achleitner was elected to the Audit Committee as successor to Anton van Rossum with effect from the end of the 2016 Annual General Meeting.

Wolfgang Mayrhuber retired from the Supervisory Board with effect from 31 December 2016. Renata Jungo Brüngger was appointed to the Supervisory Board by an order of the Amtsgericht (Local Court) of Munich dated 3 January 2017. The Supervisory Board will propose to the 2017 Annual General Meeting of shareholders that Renata Jungo Brüngger be elected to the Supervisory Board for the remainder of Wolfgang Mayrhuber's term of office.

Dieter Spethmann passed away on 1 February 2016. He had been a member of the Supervisory Board of Munich Re from 1976 to 1998, and was its Chairman between 1978 and 1996. Dieter Spethmann made a major contribution to Munich Re's transition into a diversified financial services provider. We have a great deal to thank him for, and mourn the loss of an exceptional man.

Further information on corporate governance in general is available in the joint report of the Board of Management and Supervisory Board on page 14 ff.

Company and Group financial statements for 2016 and Solvency II reporting

KPMG Bayerische Treuhandgesellschaft Aktiengesellschaft Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft duly audited the Company and Group financial statements and the combined management report as at 31 December 2016, and issued them with an unqualified auditor's opinion. The respective reports and the Board of Management's proposal for appropriation of the net retained profits were subsequently submitted directly to the members of the Supervisory Board. At its meeting on 6 February 2017, the Audit Committee had the opportunity to confer in detail about the preliminary year-end figures as at 31 December 2016. On 13 March 2016, it 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 in advance the Company and Group financial statements, the combined management report and the Board of Management's proposal for appropriation of the net retained profits. It discussed these at length with the auditor present at the meeting, and gave detailed consideration to the auditor's reports. 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 in the plenary session.

The full Supervisory Board also reviewed the Company and Group financial statements and the combined management report, and the proposal of the Board of Management for appropriation of the net retained profits.

On the basis of this examination and having heard the auditor's report, the Supervisory Board raised no objections to the outcome of the external audit. It approved the Company and Group financial statements on 14 March 2017. 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 once again contributed to another gratifying result for Munich Re.

Munich, 14 March 2017

For the Supervisory Board

Bernd Pischetsrieder
Chairman

Corporate governance report[1]

Corporate governance stands for a form of responsible company management and control geared to long-term creation of value.

The German Corporate Governance Code contains the main legal rules to be observed by listed German companies. In addition, it includes recommendations and proposals based on nationally and internationally recognised standards of good and responsible management. We apply the highest standards to our operations and activities and therefore comply with all the recommendations and proposals of the German Corporate Governance Code. By adopting international guidelines such as the UN Global Compact, the Principles for Responsible Investment for the investments we make and the Principles for Sustainable Insurance for our core business, we further demonstrate our commitment to corporate responsibility.

Efficient practices on the Board of Management and Supervisory Board, good collaboration between these bodies and with the Group's staff, an organisational structure that fits the purpose of the Group and efficient processes for conducting business are core elements of good corporate governance. They help to secure the confidence of investors, clients, employees and the general public in our corporate activities.

More information on corporate governance can be found on our website at www.munichre.com/cg-en. There, you can also find the combined Statement on Corporate Governance in accordance with Sections 289a and 315 (5) of the German Commercial Code (HGB), and the Declaration of Conformity by the Board of Management and Supervisory Board with the German Corporate Governance Code in accordance with Section 161 of the German Stock Corporation Act (AktG). The remuneration report can be found on page 29 ff. of the combined management report.

Corporate legal structure

Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München (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). There, the principle of parity co-determination on the Supervisory Board has been strengthened by taking into account staff employed in the rest of Europe.

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

Annual General Meeting

The Annual General Meeting regularly reaches a resolution on the appropriation of profits and approving the actions of the Board of Management and Supervisory Board. Besides this, the Annual General Meeting elects the shareholder representatives on the Supervisory Board and, in particular, votes on changes to the Articles of Association and on individual capital measures. Certain corporate contracts also require the approval of the Annual General Meeting to become effective.

The principle of "one share, one vote" applies at the Company's Annual General Meeting. With the aim of making it easier for shareholders to take part and exercise their voting rights, the Company provides the option of online participation at the Annual General Meeting, and a postal vote (also electronically).

Board of Management

Pursuant to Article 16 of the Articles of Association, the Board of Management consists of at least two members; beyond this, the number of members is determined by the Supervisory Board. When appointing the Board of Management, the Supervisory Board pays due regard to diversity. In 2016, the Board of Management of Munich Reinsurance Company had ten members, two of whom were women.

The Board of Management is responsible for managing the Company, in particular for setting the Company's objectives and determining strategy. In doing so, it is obliged to safeguard Company interests and endeavour to achieve a sustainable long-term increase in the Company's value. The Board of Management is responsible for effecting adequate risk management and risk control in the Company. It must ensure that statutory requirements and internal Company guidelines are abided by, and works to achieve their compliance by Group companies (compliance).

Compliance

The Group Compliance Division (GComp) of Munich Reinsurance Company reports directly to the Chairman of the Board of Management. GComp manages the compliance activities of Munich Re (Group) through Group-wide terms of reference, monitoring their

1 In accordance with Section 3.10 of the German Corporate Governance Code.

implementation on the basis of the compliance management system (CMS). The CMS is the methodical framework for the structured implementation of early warning, risk control, consulting and supervision functions, as well as for the monitoring of background legal conditions.

At the instigation of the Board of Management, another channel has been established to complement the external independent ombudsman and thus strengthen compliance within Munich Re: the compliance whistle-blowing portal. Employees and third parties can use this portal to anonymously report activities that may cause reputational damage, suspected criminal behaviour such as bribery and corruption, and contraventions of antitrust, insider trading and data protection laws, and other violations of applicable legislation.

More detailed information can be found at www.munichre.com/en/compliance.

Collaboration between Board of Management and Supervisory Board

The Board of Management and the Supervisory Board cooperate closely for the benefit of the Company.

The Board of Management coordinates the Company's strategic approach with the Supervisory Board and discusses the current state of strategy implementation with it at regular intervals. The Board of Management reports regularly and as needed to the Supervisory Board about all questions relevant to the Company. Beyond this, the Board of Management reports to the Audit Committee on specific topics falling within the latter's scope of responsibility. The Supervisory Board has defined the Board of Management's information and reporting requirements in detail. Specific types of transactions, such as certain investments and divestments pursuant to Article 4 of the Articles of Association, require the Supervisory Board's consent. The Supervisory Board's approval is also required for sideline activities assumed by members of the Board of Management, and for important transactions involving members of the Board of Management or persons or undertakings closely associated with them.

Supervisory Board

In compliance with Munich Reinsurance Company's Articles of Association, the Supervisory Board has 20 members. Half are representatives of the shareholders, elected by the Annual General Meeting. The other half are elected representatives of the Group's employees in the European Economic Area.

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

Objectives of the Supervisory Board for its composition, diversity, independence and competences

In accordance with Section 5.4.1 (2) of the German Corporate Governance Code, the Supervisory Board has set itself the following objectives for its composition:

- The main criteria for selecting future members of the Supervisory Board are professional knowledge, personal abilities and experience (especially of an international nature), independence, commitment to sustained corporate profitability, and enterprise of the nominated persons.
- The Supervisory Board should have at least sixteen independent members within the meaning of Section 5.4.2 of the German Corporate Governance Code, including at least eight shareholder representatives. No members of the Supervisory Board should have any relevant conflicts of interest.
- In selecting candidates for membership, the Supervisory Board should pay due regard to diversity, especially in terms of age, internationality and gender. The objective of having at least 30% of the seats on the Supervisory Board to be filled by women by the start of the following term of office continues to apply. With a 45% representation of women since 3 January 2017, up from 40% at the end of 2016, the Supervisory Board's objective has already been surpassed at this juncture.
- Future nominations of candidates for election to the Supervisory Board should also take into account that, as a rule, 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.

In addition, the Supervisory Board's rules of procedure provide for a recommended age limit of 70 for candidates.

The aforementioned objectives apply to the Supervisory Board as a whole. Shareholder and employee represent- atives will each contribute towards meeting these objectives.

The Supervisory Board is of the opinion that all 20 of its members are to be regarded as independent within the meaning of Section 5.4.2 of the German Corporate Governance Code. The Supervisory Board is not aware of any business or personal relationship between a member and the Company, its governing bodies, a controlling shareholder or an entity affiliated with such a shareholder, as a result of which a major and not only temporary conflict of interest could arise. The Supervisory Board assumes that the employee representatives on the Supervisory Board elected in accordance with the Act on the Co-Determination of Employees in Cross-Border Mergers and the Co-Determination Agreement are independent as a matter of principle.

The Supervisory Board's Nomination Committee selects candidates for the shareholder representatives based on a defined set of criteria. Besides the objectives mentioned, these criteria include a good overall understanding of the Company's business model, sufficient time availability and special professional skills. Consequently, it must be ensured that the Supervisory Board as a whole possesses adequate knowledge, skills and experience with regard to markets, business processes, competitors, and the requirements of reinsurance, primary insurance, international health and investment, besides having an adequate knowledge of risk management, accounting, controlling and internal auditing, asset liability management, legal and regulatory affairs, compliance and tax matters.

The set of criteria also includes other personal qualities of the Supervisory Board members, such as a strong commitment to corporate governance and to a sustainable corporate strategy and business policy geared to creating long-term value for shareholders, strategic and problem-solving skills, and competence in dealing with change.

Additional requirements will be defined on a case-by-case basis for specific tasks to be handled by the Supervisory Board. The European Electoral Board, which is responsible for the election of the employee representatives, also uses a corresponding set of criteria. In addition, the specific rules for co-determination apply.

The Supervisory Board is of the opinion that its composition meets the defined criteria.

Share trading and shares held by Board members

The Company has to be notified promptly of the acquisition or sale of Company shares (or financial instruments based on these) by members of the Board of Management and Supervisory Board and by specified persons closely related to or connected with them. This notification must take place for acquisition and sales transactions totalling €5,000 or more in a single calendar year.

Munich Reinsurance Company publishes information of this kind on its website without undue delay.

Governing bodies of Munich Re

Board of Management

Dr. jur. Nikolaus von Bomhard (until 26 April 2017)
Chairman of the Board of Management
Chairman of the Group Committee
Group Development[1]
Group Investments
Group Communications
Group Compliance
Group Audit
Group Human Resources

Dr. oec. publ. Joachim Wenning
Labour Relations Director (until 26 April 2017)
Life (until 31 January 2017)
Human Resources (until 26 April 2017)

From 27 April 2017
Chairman of the Board of Management
Chairman of the Group Committee
Group Development[1]
Group Investments
Group Communications
Group Compliance
Group Audit
Group Human Resources

Giuseppina Albo
Europe and Latin America

Dr. rer. pol. Ludger Arnoldussen
Germany, Asia Pacific and Africa
Central Procurement
Services

Dr. rer. pol. Thomas Blunck
Life and Health (since 1 February 2017)
Capital Partners
Digital Partners
Special and Financial Risks (until 31 January 2017)
Reinsurance Investments

Dr. jur. Doris Höpke
Labour Relations Director (from 27 April 2017)
Health (until 31 January 2017)
Special and Financial Risks (from 1 February 2017)
Human Resources (from 27 April 2017)

Dr. rer. nat. Torsten Jeworrek
Chairman of the Reinsurance Committee
Reinsurance Development
Corporate Underwriting
Claims
Accounting, Controlling and
Central Reserving for Reinsurance
Information Technology
Geo Risks Research/
Corporate Climate Centre

1 Including responsibility for environmental, social and governance (ESG) issues.

Dr. rer. pol. Markus Rieß
Primary Insurance/ERGO
Third Party Asset Management

Dr. rer. pol. Peter Röder
Global Clients and North America

Dr. jur. Jörg Schneider
Chief Financial Officer
Financial and Regulatory Reporting
Group Controlling
Corporate Finance M&A
Integrated Risk Management
Group Legal
Group Taxation
Investor and Rating Agency Relations

Supervisory Board

Dr. jur. Hans-Jürgen Schinzler
Honorary Chairman
Former Chairman of the Supervisory Board

Dr. Ing. E.h. Dipl. Ing. Bernd Pischetsrieder
Chairman
Member since 17 April 2002,
last re-elected 30 April 2014
Former Chairman of the Board of Management of Volkswagen AG

Marco Nörenberg
Deputy Chairman
Member since 22 April 2009,
last re-elected 30 April 2014
Employee of ERGO Group AG

Prof. Dr. oec. Dr. iur. Ann-Kristin Achleitner
Member since 3 January 2013,
last re-elected 30 April 2014
Scientific Co-Director of the Center for Entrepreneurial and Financial Studies (CEFS) at the Technical University of Munich

Clement B. Booth
Member since 27 April 2016
Member of the Board of Directors of Hyperion Insurance Group, United Kingdom

Frank Fassin
Member since 22 April 2009,
last re-elected 30 April 2014
Regional Section Head Financial Services, ver.di North Rhine-Westphalia

Dr. jur. Benita Ferrero-Waldner
Member since 12 February 2010,
last re-elected 30 April 2014
President of the Euroamérica Foundation, Spain
Partner in the law firm of Cremades & Calvo Sotelo, Spain

Christian Fuhrmann
Member since 22 April 2009,
last re-elected 30 April 2014
Head of Divisional Unit, Munich Reinsurance Company

Prof. Dr. rer. nat. Dr. h.c. Ursula Gather
Member since 30 April 2014
Rector of TU Dortmund University

Prof. Dr. rer. nat. Peter Gruss
Member since 22 April 2009,
last re-elected 30 April 2014
President and CEO of OIST Graduate University, Japan

Gerd Häusler
Member since 30 April 2014
Chairman of the Supervisory Board of BayernLB

Dr. iur. Anne Horstmann
Member since 30 April 2014
Employee of ERGO Group AG

Ina Hosenfelder
Member since 30 April 2014
Employee of ERGO Group AG
Deputy Chair of the Union Council of the Neue-Assekuranz-Gewerkschaft (NAG)

Renata Jungo Brüngger
Member since 3 January 2017
Member of the Board of Management of Daimler AG

Prof. Dr. rer. nat. Dr. Ing. E.h. Henning Kagermann
Member since 22 July 1999,
last re-elected 30 April 2014
President of acatech – German Academy of Science and Engineering

Wolfgang Mayrhuber
Member from 13 December 2002 until 31 December 2016
Chairman of the Supervisory Board of Deutsche Lufthansa AG

Beate Mensch
Member since 30 April 2014
Trades Union Secretary, ver.di, Hessen

Ulrich Plottke
Member since 30 April 2014
Employee of ERGO Group AG

Anton van Rossum
Member from 22 April 2009 until 27 April 2016
Chairman of the Supervisory Board of Royal Vopak NV, Netherlands

Andrés Ruiz Feger
Member since 22 April 2009,
last re-elected 30 April 2014
Employee of Munich Re, Sucursal en España, Spain

Gabriele Sinz-Toporzysek
Member since 30 April 2014
Employee of ERGO Beratung und Vertrieb AG

Dr. phil. Ron Sommer
Member since 5 November 1998,
last re-elected 30 April 2014
Chairman of the Supervisory Board of MTS OJSC, Russia

Angelika Wirtz
Member since 30 April 2014
Employee of Munich Reinsurance Company

Membership of the Supervisory Board committees

Standing Committee
Dr. Ing. E.h. Dipl. Ing. Bernd Pischetsrieder
Chair
Gerd Häusler (since 1 January 2017)
Prof. Dr. rer. nat. Dr. Ing. E.h. Henning Kagermann
Wolfgang Mayrhuber (until 31 December 2016)
Marco Nörenberg
Andrés Ruiz Feger

Personnel Committee
Dr. Ing. E.h. Dipl. Ing. Bernd Pischetsrieder
Chair
Prof. Dr. rer. nat. Dr. Ing. E.h. Henning Kagermann (since 1 January 2017)
Wolfgang Mayrhuber (until 31 December 2016)
Angelika Wirtz

Audit Committee
Prof. Dr. rer. nat. Dr. Ing. E.h. Henning Kagermann
Chair
Prof. Dr. oec. Dr. iur. Ann-Kristin Achleitner (since 27 April 2016)
Christian Fuhrmann
Dr. iur. Anne Horstmann
Dr. Ing. E.h. Dipl. Ing. Bernd Pischetsrieder
Anton van Rossum (until 27 April 2016)

Nomination Committee
Dr. Ing. E.h. Dipl. Ing. Bernd Pischetsrieder
Chair
Prof. Dr. oec. Dr. iur. Ann-Kristin Achleitner
Prof. Dr. rer. nat. Dr. Ing. E.h. Henning Kagermann

Conference Committee
Dr. Ing. E.h. Dipl. Ing. Bernd Pischetsrieder
Chair
Prof. Dr. rer. nat. Dr. Ing. E.h. Henning Kagermann
Marco Nörenberg
Angelika Wirtz

Other seats held by Board members

Board of Management[1]	Seats held on supervisory boards of other German companies	Membership of comparable bodies of German and foreign business enterprises
Dr. jur. Nikolaus von Bomhard (Chairman)	ERGO Group AG[2] (Chair) Munich Health Holding AG[2] (Chair) Deutsche Post AG	–
Giuseppina Albo	–	IFG Companies, USA
Dr. rer. pol. Ludger Arnoldussen	–	–
Dr. rer. pol. Thomas Blunck	–	Global Aerospace Underwriting Managers Ltd. (GAUM), United Kingdom (Chair) New Reinsurance Company Ltd., Switzerland[2] (Chair) Munich Re Digital Partners Ltd., United Kingdom[2] (Chair)
Dr. jur. Doris Höpke	–	DKV Seguros y Reaseguros S.A., Spain[2] Apollo Munich Health Insurance Company Ltd., India
Dr. rer. nat. Torsten Jeworrek	ERGO Digital Ventures AG[2] ERGO International AG[2]	–
Dr. rer. pol. Markus Rieß	ERGO Beratung und Vertrieb AG[2] (Chair) ERGO International AG[2] (Chair) ERGO Versicherung AG[2] (Chair) ERGO Digital Ventures AG[2] (Chair) ERGO Deutschland AG[2] (Chair) ITERGO Informationstechnologie GmbH[2] (Chair) DKV Deutsche Krankenversicherung AG[2] (Chair) MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH[2] (Chair)	–
Dr. rer. pol. Peter Röder	EXTREMUS Versicherungs-AG	Munich Re America Corp., USA[2] (Chair) Munich Reinsurance America, Inc., USA[2] (Chair)
Dr. jur. Jörg Schneider	MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH[2]	–
Dr. oec. publ. Joachim Wenning	–	–

1 As at 31 December 2016.
2 Own Group company within the meaning of Section 18 of the German Stock Corporation Act (AktG).

Supervisory Board[1]	Seats held on supervisory boards of other German companies	Membership of comparable bodies of German and foreign business enterprises
Dr. Ing. E.h. Dipl. Ing. Bernd Pischetsrieder (Chairman)	Daimler AG	Tetra Laval Group, Switzerland
Marco Nörenberg (Deputy Chairman)	ERGO Group AG[2]	–
Prof. Dr. oec. Dr. iur. Ann-Kristin Achleitner	Deutsche Börse AG Linde AG METRO AG	Engie S.A. (formerly GDF SUEZ S.A.), France
Clement B. Booth (since 27 April 2016)	–	DUAL International Ltd., United Kingdom (Chair)[3] Hyperion Insurance Group Ltd., United Kingdom[3] Sanlam Ltd., South Africa[4,5] Sanlam Life Insurance Ltd., South Africa[4,5]
Frank Fassin	ERGO Group AG[2] Provinzial NordWest Holding AG	–
Dr. jur. Benita Ferrero-Waldner	–	Gas Natural Fenosa, Spain
Christian Fuhrmann	–	–
Prof. Dr. rer. nat. Dr. h.c. Ursula Gather	–	–
Prof. Dr. rer. nat. Peter Gruss	–	Actelion Ltd., Switzerland
Gerd Häusler	BayernLB Holding AG (Chair)	–
Dr. iur. Anne Horstmann	ERGO Group AG[2]	–
Ina Hosenfelder	–	–
Prof. Dr. rer. nat. Dr. Ing. E.h. Henning Kagermann	Bayerische Motoren-Werke AG Deutsche Bank AG Deutsche Post AG	–
Wolfgang Mayrhuber	Deutsche Lufthansa AG (Chair) Infineon Technologies AG (Chair)	Heico Corporation, USA
Beate Mensch	Commerzbank AG	–
Ulrich Plottke	ERGO Group AG[2]	–
Anton van Rossum (until 27 April 2016)	–	Royal Vopak NV, Netherlands (Chair)
Andrés Ruiz Feger	–	–
Gabriele Sinz-Toporzysek	ERGO Beratung und Vertrieb AG[2]	–
Dr. phil. Ron Sommer	–	PrJSC MTS, Ukraine (Chair) Tata Consultancy Services Ltd., India
Angelika Wirtz	–	–

1 As at 31 December 2016.
2 Own Group company within the meaning of Section 18 of the German Stock Corporation Act.
3 Belong to the same corporate group (Hyperion group).
4 Listed on the stock exchange.
5 Belong to the same corporate group (Sanlam group).

Combined management report

2

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

Group

Munich Re is one of the world's leading risk carriers and provides both insurance and reinsurance under one roof. This enables the Group to cover large stretches of the value chain in the risk market. Almost all reinsurance units operate under the uniform brand of Munich Re. ERGO Group AG (ERGO) is active in nearly all lines of life, health and property-casualty insurance. Munich Re's investments worldwide are managed by MEAG, which also offers its expertise to private and institutional investors outside the Group. The Munich Health field of business was disbanded on 1 February 2017. For up-to-date information about Munich Re, visit www.munichre.com.

A core guiding principle for Munich Re is acting in a far-sighted and responsible manner in the interests of both the Group and society. We have refined our Group-wide corporate responsibility strategy, based on the shared-value approach. This means that, in our business operations, we bring together economic and social progress to counter the most significant global challenges. We are therefore concentrating on mitigating the consequences of climate change; improving access to healthcare for all levels of society worldwide; and increasing risk awareness within our Group, among our staff, clients, and shareholders, and in society.

We have the relevant abilities, resources and risk expertise to originate new solutions. In close cooperation with recognised partners, we generate added value through our business solutions and initiatives.

Our voluntary commitments, such as the ten principles of the United Nations Global Compact, the Principles for Responsible Investment, and the Principles for Sustainable Insurance are the foundations of our corporate responsibility approach. In our insurance business and investment management, we proactively embrace environmental and social factors, as well as governance aspects. We have implemented a Group-wide environmental management system, and our operations have been carbon-neutral since 2015. With our social involvement, we fulfil our role as a "good corporate citizen", focusing on projects related to our core business. All information on our endeavours is available from our corporate responsibility portal at www.munichre.com/cr-en.

In our estimation, the talent and performance of our staff are the keystones to Munich Re's long-term success. Our international and diversity-focused human resources work sets great store in a corporate and leadership culture which promotes motivation and innovation in our highly qualified staff members. More information can be obtained under www.munichre.com/employees.

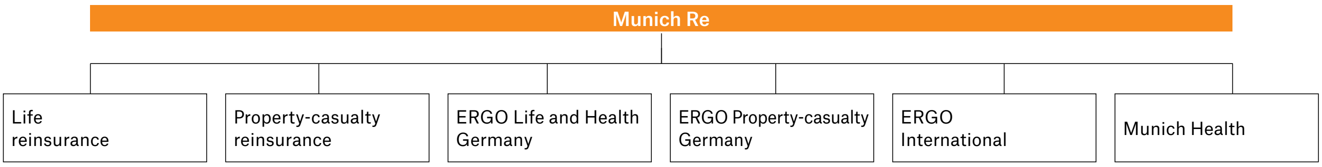
As at 31 December 2016, our Group employed 43,428 (43,554) staff members worldwide, 27.9% (27.6%) of whom worked in reinsurance, 66.2% (66.6%) at ERGO and 5.9% (5.7%) in Munich Health.

Group structure

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

In ERGO, we combine all Munich Re's primary insurance activities. Some 74% (73%) of gross premiums written by ERGO derive from Germany, and 26% (27%) from international business – mainly from central and eastern European countries. ERGO has also extended its activities to Asian markets such as India, China, Vietnam, Singapore and Thailand. From 1 February 2017, responsibility for health primary insurance business was transferred from Munich Health to ERGO International.

Segmentation



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

Reinsurance

In reinsurance, we operate in life and property-casualty business. Under reinsurance, we also include specialised primary insurance activities that are handled by the reinsurance organisation and business from managing general agencies (MGAs). Munich Re does business with over 4,000 corporate clients from more than 160 countries.

As reinsurers, we write our business in direct collaboration with primary insurers, but also via brokers and increasingly within the framework of exclusive, 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. Through our operating field Risk Solutions, we offer our clients in industrial and major-project business a wide range of specialised 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 reinsurance operations

Our international life business is written in the Life Division. This is split into three geographical regions and one international unit responsible for global activities in the area of risk and capital management. The focus of the division's business activities is on traditional reinsurance solutions that concentrate on the transfer of mortality risk. Moreover, we have been increasingly 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. Until now, we have offered this only in the United Kingdom.

Besides assuming underwriting risks, we offer our clients a wide range of services, from medical expertise to automated risk assessment processes. In addition, we continuously expand our tailor-made structured concepts for clients seeking to optimise their capitalisation, liquidity or other important 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. We service the European markets from our operations in Germany, the United Kingdom, Spain and Italy. At the same time, we have a strong local presence in Australia and South Africa, and in all important growth markets in Asia and Latin America. Asian business is centrally managed by a dedicated branch in Singapore, which underlines the strategic importance of this region for life reinsurance.

From 1 February 2017, the reinsurance units of Munich Health were merged with the Life Division.

The property-casualty reinsurance divisions

Global Clients and North America 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, and for international special lines business such as workers' compensation. The three major US-based subsidiaries are Munich Reinsurance America, Inc. (Munich Re, US), The Hartford Steam Boiler Inspection and Insurance Company (HSB), and American Modern Insurance Group, Inc. (American Modern). Munich Re, US writes property-casualty reinsurance business and niche primary insurance business. The division's reinsurance portfolio is complemented by the primary insurers HSB and American Modern, which specialise in US primary insurance products for which understanding of the exposure and client proximity are paramount.

Our Europe and Latin America Division is responsible for property-casualty business with our clients from Europe (except Germany), Latin America and the Caribbean. Branches – for example, in London, Madrid, Paris and Milan – and our Brazilian subsidiary Munich Re do Brasil Resseguradora S.A. , afford us market proximity and regional competence.

The Germany, Asia Pacific and Africa Division conducts property-casualty business with our clients in Germany, Africa, Asia, Australia, New Zealand and the Pacific Islands. With offices in Australia and New Zealand, Munich Holdings of Australasia Pty. Ltd. ensures that we are on hand for our clients in the region. All the important Asian markets are serviced by our branch offices in Hong Kong, Mumbai (since February 2017), Beijing, Singapore and Seoul, and by other representative offices. In the African market, we are represented by our subsidiary Munich Reinsurance Company of Africa Ltd., headquartered in Johannesburg, and by other liaison offices. The branches in Asia guarantee our competitiveness in these key growth markets with their commitment and local presence.

The Special and Financial Risks Division is in charge of the classes of credit, marine, aviation and space, agriculture, enterprise, and other selected contingency risks. The Corporate Insurance Partner unit, which is dedicated to industrial clients and is part of Risk Solutions, also belongs to this division. In 2015, we pooled the Risk Trading Unit, which offers alternative capital market solutions and retrocession (our own reinsurance), and other product experts in a new unit called Capital Partners. Structured prospective and retrospective reinsurance solutions have thus been added, so that we can offer our clients all the tools needed for dealing with complex issues from a single source. In spring 2016, SFR founded a new unit: Digital Partners. This company works together with start-ups to develop online insurance business based on a purely digital technology platform. A key component of Munich Re's risk solution strategy is Great Lakes Insurance SE, which is assigned to this division. It has its headquarters in Munich (relocated from London at the end of December 2016) and a large branch office in London. Its aim is to leverage business potential in niche primary insurance business which is close to reinsurance.

The reinsurance units at a glance[1]

Selected subsidiaries and branch offices outside Germany

Life	Munich American Reassurance Company, Atlanta, Georgia Munich Re, Tokyo Munich Re, Toronto Munich Re, Auckland Munich Holdings of Australasia Pty. Ltd., Sydney Munich Re, London
Global Clients and North America	American Alternative Insurance Corporation, Wilmington, Delaware[2] American Family Home Insurance Company, Jacksonville, Florida American Modern Home Insurance Company, Amelia, Ohio American Modern Insurance Group, Inc., Amelia, Ohio American Western Home Insurance Company, Oklahoma City, Oklahoma Global Standards, LLC, Dover, Delaware HSB Engineering Insurance Ltd., London HSB Group, Inc., Dover, Delaware Munich Re Holding Company (UK) Ltd., London Munich Reinsurance America, Inc., Wilmington, Delaware[2] Munich Reinsurance Company of Canada, Toronto, Ontario Temple Insurance Company, Toronto, Ontario The Hartford Steam Boiler Inspection and Insurance Company, Hartford, Connecticut The Princeton Excess and Surplus Lines Insurance Company, Wilmington, Delaware The Midland Company, Cincinnati, Ohio
Europe and Latin America	Munich Re do Brasil Resseguradora S.A., São Paulo[2] Munich Re, Madrid[2] Munich Re, Milan Munich Re, Paris Munich Re, London

Germany, Asia Pacific and Africa	Great Lakes, Sydney Calliden Insurance Ltd., Sydney Great Lakes, Auckland Munich Re, Auckland Munich Re, Beijing[2] Munich Reinsurance Company of Africa Ltd., Johannesburg Munich Holdings of Australasia Pty. Ltd., Sydney Munich Re, Hong Kong[2] Munich Re, Kuala Lumpur Munich Re, Seoul[2] Munich Re, Singapore[2] Munich Re, Sydney
Special and Financial Risks	Great Lakes Insurance SE, Munich[2] Great Lakes, Baar Great Lakes, Dublin Great Lakes, Milan Munich Re of Malta p.l.c., Ta' Xbiex[2] New Reinsurance Company Ltd., Zurich[2]

1 A detailed list of shareholdings can be found on page 168 ff. in the notes to the consolidated financial statements.
2 Units that also transact business in Munich Health and are therefore allocated proportionately to reinsurance.

ERGO

Munich Re's second pillar is primary insurance business.

ERGO Insurance Group was given a new organisational structure in 2016. German, international, and direct and digital business are bundled in three separate units under the umbrella of the newly named ERGO Group AG. In addition to the existing ERGO International AG, two new holding companies were founded in 2016: traditional German business will be concentrated in ERGO Deutschland AG. The third pillar, ERGO Digital Ventures AG, will be responsible for all of the Group's digital and direct activities, including ERGO Direkt business. Responsibility for the new ERGO Mobility Solutions unit will lie with ERGO Digital Ventures from 2017, given the growing significance of automotive financial services.

Via ERGO, we offer products in all the main classes of insurance: life insurance, German health insurance, and in nearly all lines of property-casualty insurance, as well as travel insurance and legal protection insurance. With these products – in combination with the provision of assistance, other services and individual consultancy – we cover the needs of private and corporate clients. ERGO serves over 35 million (mainly private) clients in over 30 countries, with the focus on Europe and Asia. Up-to-date information on ERGO can be found at www.ergo-group.com.

With ERGO Lebensversicherung AG and ERGO Versicherung AG, our primary insurance arm is one of Germany's largest providers of life and property insurance. ERGO Versicherung AG also markets legal protection insurance under the D.A.S. brand. As a specialist for unit-linked life insurance, VORSORGE Lebensversicherung supports the restructuring of private provision products in the low-interest-rate environment. DKV Deutsche Krankenversicherung is a leading provider and specialist in the healthcare market, catering for privately and statutorily insured individuals alike with its broad range of supplementary covers. The specialist travel insurer ERV is an established carrier and a market leader internationally as well as in Germany. ERGO's own sales company, ERGO Beratung und Vertrieb AG, bundles the various sales channels – from tied intermediaries and brokers to banks and other cooperation partners. The ERGO Direkt companies provide the expertise in digital marketing that is increasingly gaining in importance across the market. Their broad-based portfolio, spanning all classes of business and a plethora of distribution channels coupled with an individual sales advice approach, enables attractive all-round provision for all client groups.

In Europe and Asia, ERGO is represented by life and property insurers under the ERGO brand and legal protection insurers under the D.A.S. brand. Of ERGO's European companies, those in Austria, Poland, the Baltic states and Greece have a particularly strong market presence. In Greece, ERGO became the market leader in 2016 after acquiring a primary insurer there. As an experienced legal-protection specialist, D.A.S. too numbers amongst the leading players in each of its markets. With its ERGO Industrial Division, ERGO Versicherung AG services corporate clients in industrial insurance from its branches in Austria, the Netherlands, the United Kingdom, Switzerland and – since 2016 – France.

ERGO is participating in the dynamic development of the Asian growth region via joint ventures in India and China, and acquisitions and investments in other countries. In India, we raised our stake in the property insurer HDFC ERGO to 48.7% in 2016. That same year, HDFC ERGO strengthened its market presence through the acquisition of another property insurer. In the Indian life insurance market, we are a joint venture partner in Avantha ERGO. In China, ERGO China Life – a joint venture with the state-owned financial investor SSAIH – is tapping into the potential of the major province of Shandong. ERGO broached yet another Asian market in 2016 by acquiring shares in Thailand's Thaisri Insurance. In Vietnam, Munich Re's primary insurance arm has an interest in the property insurer GIC.

The health primary insurance business managed by Munich Health was transferred to ERGO International from 1 February 2017.

ERGO at a glance[1]

Segment	Selected subsidiaries
Life and Health Germany	DKV Deutsche Krankenversicherung Aktiengesellschaft, Cologne ERGO Direkt Krankenversicherung AG, Fürth ERGO Direkt Lebensversicherung AG, Fürth ERGO Direkt Versicherung AG, Fürth ERGO Lebensversicherung Aktiengesellschaft, Hamburg ERGO Pensionskasse AG, Düsseldorf EUROPÄISCHE Reiseversicherung Aktiengesellschaft, Munich Victoria Lebensversicherung Aktiengesellschaft, Düsseldorf VORSORGE Lebensversicherung Aktiengesellschaft, Düsseldorf
Property-casualty Germany	ERGO Versicherung Aktiengesellschaft, Düsseldorf
International	AGROTIKI Insurance S.A., Athens DAS Legal Expenses Insurance Company Limited, Bristol DAS Nederlandse Rechtsbijstand Verzekeringmaatschappij N.V., Amsterdam ERGO General Insurance Company S.A., Athens ERGO Insurance N.V., Brussels ERGO Insurance SE, Tallinn ERGO Life Insurance SE, Vilnius ERGO SIGORTA A.S., Istanbul ERGO Versicherung Aktiengesellschaft, Vienna Sopockie Towarzystwo Ubezpieczen Ergo Hestia Spolka Akcyjna, Sopot Sopockie Towarzystwo Ubezpieczen na Zycie Ergo Hestia Spolka Akcyjna, Sopot

1 A detailed list of shareholdings can be found on page 168 ff. in the notes to the consolidated financial statements.

Munich Health

Since 2008, Munich Re had pooled its health business in the Munich Health field of business. A wide spectrum of service providers and risk carriers in primary insurance and reinsurance worldwide (though not in Germany) had attended to customers in services and the insurance sector since then. Despite a few individual success stories, the original growth and revenue targets for the Munich Health field of business had not been realised overall. We therefore decided to disband this field of business with effect from 1 February 2017. The reinsurance part of Munich Health was merged with the Life Division, and the primary insurance part was transferred to ERGO International. The reorganisation will also release cost synergies.

In the 2016 financial year, Munich Health had been working on further business expansion in the Asia-Pacific region via service-oriented reinsurance solutions focusing on Southeast Asia and China. The management and key operational functions of our reinsurance activities in North America were relocated to Minnesota in order to be even closer to clients and sales partners for future business development. We continued to grow our reinsurance business in the Middle East and Gulf region. In the year under review, we laid the organisational groundwork for future growth through capital-relief reinsurance solutions in Europe and Latin America. By increasing our stake in Apollo Munich Health Insurance in India by 23.3% to 48.7%, we have bolstered our opportunities to participate in the continuing dynamic growth within primary insurance. Despite the difficult economic environment, DKV Seguros in Spain confirmed its market-leading position. As a provider of funded health insurance, DKV Belgium did not escape the impact of the low-interest-rate environment, but it is consistently developing its offering further in favour of products that are not dependent on interest rates.

Munich Health at a glance[1]

Selected companies fully allocated to Munich Health
Apollo Munich Health Insurance Company Ltd., Hyderabad
Daman – National Health Insurance Company, Abu Dhabi
Daman Health Insurance – Qatar LLC, Doha, Qatar
DKV Belgium S.A., Brussels
DKV Seguros y Reaseguros, Sociedad Anónima Española, Saragossa
Globality S.A., Luxembourg
Marina Salud S.A., Alicante
Munich Re Stop Loss, Inc., Wilmington, Delaware
Storebrand Helse ASA, Lysaker
Selected companies that operate in more than one segment and are allocated proportionately to Munich Health
Great Lakes Insurance SE, Munich
Münchener Rückversicherungs-Gesellschaft AG, Munich
Munich Re of Malta p.l.c., Ta' Xbiex
Munich Reinsurance America, Inc., Wilmington, Delaware

1 A detailed list of shareholdings can be found on page 168 ff. in the notes to the consolidated financial statements.

Remuneration report

Remuneration system for the Board of Management

The remuneration system for the Board of Management focuses strongly on long-term objectives, and thus creates a pronounced incentive for sustainable corporate development. It complies with

- the recommendations of the German Corporate Governance Code, applicable since 5 May 2015,
- the provisions of the German Remuneration Regulation for Insurance Companies (VersVergV) of 18 April 2016, and
- Article 275 of the Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).

The full Supervisory Board decides on the remuneration system for the Board of Management, and reviews it regularly. The Personnel Committee of the Supervisory Board, comprising the Chairman of the Supervisory Board, one shareholder representative and one employee representative, prepares the resolutions for the full Supervisory Board.

Structure of the remuneration system for the Board of Management

Component	Share[1]	Assessment basis/ parameters	Corridor	Precondition for payment	Payment
Basic remuneration plus remuneration in kind/ fringe benefits	**30%**	Function, Responsibility, Length of service on Board	Fixed	Contractual stipulations	Monthly
Variable remuneration	**70%**	Corporate performance Result contribution of organisational unit(s) Personal performance			
30% annual performance (for 100% performance evaluation/ achievement of objectives)		Group objective Business-field objectives Divisional objectives Personal objectives Overall performance	**0–200%** (fully achieved = 100%)	Achievement of annual objectives	**In the second year, on condition that 50% of the net amount paid out is invested by the Board member in Munich Re shares that must be held for at least a four-year period**
70% multi-year performance (for 100% performance evaluation/ achievement of objectives)		Objectives for the fields of business – Reinsurance – ERGO – Munich Health[2] Personal objectives Overall performance	**0–200%** (fully achieved = 100%)	Achievement of three-year objectives	**In the fourth year, on condition that 25% of the net amount paid out is invested by the Board member in shares that must be held for at least a two-year period**
Pension					
Defined contribution plan		Target overall direct remuneration[3]	Pension contribution	> Retirement > Insured event > Premature termination	

1 For the variable remuneration, the share shown presupposes 100% performance evaluation/achievement of objectives.
2 The field of business/division Munich Health was disbanded as at 1 February 2017, so that no objectives have been set with effect from 2017.
3 Target overall direct remuneration comprises basic remuneration plus variable remuneration based on 100% performance evaluation/achievement of objectives.

Fixed components
The fixed components of remuneration comprise basic remuneration, plus remuneration in kind and fringe benefits.

Basic remuneration
The basic remuneration comprises a fixed cash compensation for the financial year, paid out as a monthly salary.

Remuneration in kind/fringe benefits
Remuneration in kind and fringe benefits include – in particular – company cars, insurance premiums and health screening examinations, and are reviewed against market practice at regular intervals. Income tax on the benefits in question is paid individually for each member of the Board of Management, with the Company bearing the amount due. Remuneration in kind and fringe benefits are disclosed in the Annual Report using expenditure as the basis of valuation.

Variable remuneration
The variable remuneration component is geared to the overall performance of the Group and defined divisional units, and to the personal performance of the individual members of the Board of Management. The amount depends on the extent to which the annually set objectives for annual and multi-year performance are met, and how the component "evaluation of overall performance" is assessed.

Processes have been laid down for specifying respective objectives and assessing their achievement. These processes require review by the external auditor, who checks the criteria for measuring the envisaged financial objectives and whether their achievement has been assessed in accordance with the guidelines established by the Company. The outcome is notified to the Supervisory Board.

Achievement of objectives and overall performance is measured at the end of the one-year and three-year periods in question, there being no adjustment of targets during these periods. The corridor for the achievement of the individual objectives and for the overall annual and multi-year performance is 0–200%. Payouts are made at the end of the periods under consideration. With a view to promoting a management approach that takes due account of the Company's long-term interests, the members of the Board of Management are obliged to invest a fixed part of the paid-out variable remuneration in Munich Reinsurance Company shares.

Annual objectives, multi-year objectives, overall performance evaluation and investment in shares together form a well-balanced and economic (i.e. strongly risk-based) incentive system, with great importance being attached to ensuring that the targets set for the members of the Board of Management do not have undesirable effects. No guaranteed variable salary components are granted.

Variable remuneration based on annual performance
Firstly, annual targets for the variable remuneration component geared to annual performance are set on the basis of the consolidated result of Munich Re (Group), the results from the reinsurance and ERGO fields of business, divisional results and personal performance. In addition, the Supervisory Board assesses overall performance – particularly performance not taken into account in the objectives – of the Board of Management as a whole and the individual Board members, and it also takes into account developments during the appraisal period that are beyond the influence of the Board. Full achievement of the annual objectives (100%) allows for payment of 30% of the overall target amount for variable remuneration.

The variable remuneration for annual performance is determined on the basis of evaluation by the full Supervisory Board and then paid out in the year after the one-year assessment period. Of the net payout amount, 50% must be invested in Munich Reinsurance Company shares that must be held for at least a four-year period.

Details of the assessment bases for the annual performance can be seen in the following table:

Variable remuneration based on annual performance

Category of objective	Share[1]	Assessment basis	Parameters
Collective contribution to corporate success	25%–60%		
Group objective		Derived from key performance indicators in external reporting and other important portfolio and performance data	Return on risk-adjusted capital, RORAC[2]
Business-field objectives			
– Reinsurance		Value-based economic performance indicators: – Property-casualty reinsurance – Life reinsurance	Components of economic earnings[3]: – Value added – Value added by new business – Change in the value of in-force business
– ERGO		Value-based economic performance indicator	Economic earnings[3]
Individual contribution to corporate success	20%–55%		
Divisional objectives		Value-based economic performance indicators: – Property-casualty reinsurance and Munich Health – Life reinsurance	Components of economic earnings[3]: – Value added – Value added by new business – Change in the value of in-force business
Personal objectives		Personal objectives per Board member	Special focal points such as – Pricing and cycle management – Client management – Innovation initiatives
Overall performance evaluation	20%	Overall performance of individual Board members and of the Board of Management as a whole	Assessment by Supervisory Board taking into account Section 87 of the Stock Corporation Act (AktG) and the German Corporate Governance Code

1 The objectives are weighted individually according to the responsibilities of the individual Board members.
2 Further information on RORAC is provided on page 47.
3 Further information on economic earnings is provided on page 46.

Variable remuneration based on multi-year performance

For the multi-year performance remuneration component, three-year targets based on the financial results of the reinsurance, ERGO and Munich Health fields of business and on individual performance are fixed every year. The Supervisory Board also assesses the overall performance of the whole Board of Management and the individual Board members. This allows for a response to developments during the three-year appraisal period that are beyond the influence of Board members, and which can also be taken into account along with performance not included in the agreement of objectives. Full achievement of the multi-year objectives (100%) allows for payment of 70% of the overall target amount for variable remuneration.

The variable remuneration for the multi-year performance is determined on the basis of evaluation by the full Supervisory Board and then paid out in the year after the three-year assessment period. Of the net payout amount, 25% must be invested in Munich Reinsurance Company shares that must be held for at least a two-year period.

Details of the assessment bases for the multi-year performance can be seen in the following table:

Variable remuneration based on multi-year performance

Category of objective	Share[1]	Assessment basis	Parameters
Collective contribution to corporate success	0%–60%		
Business-field objectives (three-year average)			
– Reinsurance		Value-based economic performance indicators: – Property-casualty reinsurance – Life reinsurance	Components of economic earnings[2]: – Value added – Value added by new business – Change in the value of in-force business
– ERGO[3]		Value-based economic performance indicator	Economic earnings[2]
– Munich Health[3]		Value-based economic performance indicator	Component of economic earnings[2]: – Value added
Individual contribution to corporate success	20%–80%		
Personal objectives (three-year period)		Personal objectives per Board member	Special focal points such as – Strategic goals – Client management – Innovation initiatives – Digitalisation initiatives
Overall performance evaluation	20%	Overall performance of individual Board members and the Board of Management as a whole	Assessment by Supervisory Board taking into account Section 87 of the Stock Corporation Act (AktG) and the German Corporate Governance Code (incl. corporate responsibility)

1 The objectives are weighted individually according to the responsibilities of the individual Board members.
2 Further information on economic earnings is provided on page 46.
3 The business-field objective for Munich Health and for ERGO is an "individual contribution to corporate success" for the Board member responsible.

Weighting of remuneration components
In the case of 100% achievement of objectives, the weightings of the individual components in terms of total remuneration were as follows: basic remuneration 30%, variable remuneration 70%, of which 30% was based on annual performance and 70% on multi-year performance.

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

Other remuneration
Stock option plan
No stock option plans or other incentive systems are in place for the Board of Management.

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

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

Members of the Board of Management appointed for the first time after 1 January 2017 whose contracts are terminated by the Company without good cause will have a contractual right to a severance payment. Such payments may not exceed the equivalent of two years total remuneration, and are restricted by the remaining term of the Board member's contract. Total annual remuneration is calculated on the basis of fixed annual remuneration and the variable remuneration paid out for the prior full financial year before the contract was terminated; remuneration in kind, other ancillary benefits and contributions to occupational retirement schemes are not taken into account. Payments received by a Board member during a period of notice and after termination of the appointment are offset against any severance payment. There will be no right to severance payments if the Board member's contract is terminated by the Company for good cause.

Pensions

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

As of 2009, newly appointed members of the Board have become members of a defined contribution plan. For this plan, the Company provides a pension contribution for each calendar year (contribution year) during the term of the employment contract. It uniformly amounts to 25.5% of the target overall direct remuneration (= basic remuneration + variable remuneration on the basis of 100% achievement of objectives). The pension contribution is paid over to an external pension insurer. The insurance benefits that result from the contribution payments constitute the Company's pension commitment to the Board member.

Board members appointed before 2009 were transferred to the new system. They kept their pension entitlement from the previous defined benefit plan (fixed amount in euros) existing at the date of transfer on 31 December 2008, which was maintained as a vested pension. For their service years as of 1 January 2009, they receive an incremental pension benefit based on the defined contribution plan.

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

The members of the Board of Management are also members of the Munich Re pension scheme, which is a defined contribution plan.

Benefits on termination of employment

Board members appointed before 2006 and entitled to an occupational pension, disability pension, reduced occupational pension or improved vested benefits continue to receive their previous monthly basic remuneration for a period of six months after retiring or leaving the Company.

Occupational pension

Board members appointed for the first time before 1 April 2012 are entitled to an occupational pension on retiring from active service with the Company after reaching the age of 60 or, at the latest, at the end of the calendar year in which they turn 65.

Board members appointed for the first time as from 1 April 2012 are entitled to an occupational pension on retiring from active service with the Company after reaching the age of 62 or, at the latest, at the end of the calendar year in which they turn 67.

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

Disability pension

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

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

Reduced occupational pension on early retirement

Board members appointed before 1 January 2017 are entitled to a reduced occupational pension on early retirement if the contract of employment is terminated as a result of non-extension or revocation of their appointment without the Board members having given cause for this through a gross violation of their duties, or at their own request. The precondition is that the Board members have already passed the age of 50, have been in the employment of the Company for more than ten years when the contract terminates, and have had their appointment to the Board of Management extended at least once.

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

assumes payment of the difference between the monthly occupational pension and the monthly incremental pension from the external insurance.

Members of the Board of Management appointed for the first time after 1 January 2017 do not have any entitlement to a reduced occupational pension on early retirement.

Vested benefits for occupational pension, disability pension and surviving dependants

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

Vested benefits under the Employers' Retirement Benefits Act (BetrAVG):

Board members have vested benefits under the Employers' Retirement Benefits Act if they leave the Company before reaching the age of 60 or 62 and the pension commitment has existed for at least five years previously.

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

Provision for surviving dependants

In the event of the death of a Board member during active service, the surviving dependants receive the previous monthly basic remuneration for a period of six months if the deceased was appointed to the Board of Management before 2006. In the case of Board members appointed for the first time as from 2006, the previous monthly basic remuneration is paid to the beneficiaries for a period of three months. If the Board members death occurs after retirement, the surviving dependants receive the previous monthly occupational pension for a period of three months, provided the marriage/registration of the civil partnership took place and/or the child was born before the Board member started drawing the occupational pension. Surviving spouses and registered civil partners normally receive a pension amounting to 60% of the defined benefit or insured occupational pension; half orphans receive 20% and complete orphans 40%. The total amount may not exceed the occupational pension of the Board member. If the Board member's occupational pension was reduced owing to early retirement, benefits for surviving dependants are based on the reduced occupational pension.

Total remuneration of the Board of Management

The level of the target overall direct remuneration for the individual members of the Board of Management is set by the full Supervisory Board, acting on recommendations from the Supervisory Boards Personnel Committee. Criteria for the appropriateness of compensation are the respective Board member's duties, the Board member's personal performance, the performance of the Board as a whole, and the financial situation, performance and future prospects of Munich Re. Other criteria are the relevant comparative benchmarks for Board remuneration and the prevailing remuneration structure at Munich Reinsurance Company. The Supervisory Board takes account of the level of Board salaries in relation to the level of salaries paid to senior managers and to general staff members over a period of time, and also determines how senior managers and general staff (pay-scale and non-pay-scale employees) are to be classified for the purpose of this comparison. The consideration of what level of remuneration is appropriate also takes into account data from peer-group (DAX 30) companies. New Board members are placed at a level which allows sufficient potential for development of the remuneration in the first three years.

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

Board of management remuneration under DRS 17

Under DRS 17, remuneration for annual performance 2016 is shown as the provisions set aside for that purpose taking into account the relevant additional/reduced expenditure for the previous year, since the performance on which the remuneration is based has been completed as at the balance sheet date and the requisite Board resolution is already foreseeable. Under DRS 17, remuneration for multi-year performance 2013–2015 is recognised in the year of payment, i.e. in 2016.

Fixed and variable remuneration components

The remuneration received by the members of Munich Reinsurance Company's Board of Management for fulfilling their duties in respect of the parent company and its subsidiaries is shown in the following table.

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

Name	Financial year	Basic remuneration	Remuneration in kind/fringe benefits	Annual performance[1]	Multi-year performance[2]	Other	Total
		€	€	€	€	€	€
Nikolaus von Bomhard	**2016**	**1,260,000**	**35,783**	**840,887**	**1,901,200**		**4,037,870**
	2015	1,230,000	33,564	1,035,093	2,214,800		4,513,457
Giuseppina Albo	**2016**	**555,000**	**21,959**	**364,293**			**941,252**
	2015	487,500	96,010	439,538			1,023,048
Ludger Arnoldussen[3]	**2016**	**615,000**	**90,384**	**325,572**	**903,070**		**1,934,026**
	2015	600,000	38,717	461,160	1,163,750		2,263,627
Thomas Blunck	**2016**	**615,000**	**31,700**	**402,459**	**949,620**		**1,998,779**
	2015	600,000	33,996	432,390	1,173,060		2,239,446
Doris Höpke	**2016**	**555,000**	**33,356**	**519,462**			**1,107,818**
	2015	487,500	29,884	312,925			830,309
Torsten Jeworrek	**2016**	**885,000**	**37,801**	**601,187**	**1,410,465**		**2,934,453**
	2015	870,000	182,311	737,803	1,745,625		3,535,739
Markus Rieß[4] (joined 16 September 2015)	**2016**	**976,250**	**115,717**	**567,351**		**1,500,000**	**3,159,318**
thereof for Munich Reinsurance Company		337,500	39,677	229,744		1,500,000	2,106,921
	2015	280,365	7,430	176,488		750,000	1,214,283
thereof for Munich Reinsurance Company		94,063	801	72,691		750,000	917,555
Peter Röder	**2016**	**615,000**	**35,034**	**389,554**	**921,690**		**1,961,278**
	2015	600,000	34,932	543,690	1,173,060		2,351,682
Jörg Schneider	**2016**	**885,000**	**37,011**	**593,055**	**1,354,605**		**2,869,671**
	2015	870,000	34,627	723,614	1,592,010		3,220,251
Joachim Wenning[3]	**2016**	**615,000**	**139,039**	**511,489**	**903,070**		**2,168,598**
	2015	600,000	33,699	523,950	1,093,680		2,251,329
Total	**2016**	**7,576,250**	**577,784**	**5,115,309**	**8,343,720**	**1,500,000**	**23,113,063**
	2015	6,625,365	525,170	5,386,651	10,155,985	750,000	23,443,171

1 At the time of preparation of this report, no Supervisory Board resolution had yet been passed on the amounts to be paid for the 2016 annual performance. The amounts shown for annual performance remuneration are based on estimates, i.e. the relevant provisions and the additional/reduced expenditure for 2015. For the 2015 annual performance, a total of €192,471 less was paid out than had been reserved in the financial year 2015. The additional/reduced expenditure breaks down as follows: von Bomhard –€17,564, Albo –€22,420, Arnoldussen –€70,014, Blunck –€54,474, Höpke €22,182, Jeworrek –€23,021, Rieß –€17,214, Röder –€37,674, Schneider –€14,860, Wenning €42,588. This results in the following actual bonus payments for 2015: von Bomhard €972,930, Albo €412,913, Arnoldussen €411,600, Blunck €403,200, Höpke €283,238, Jeworrek €694,260, Rieß €159,274, Röder €483,000, Schneider €675,990, Wenning €546,000. The amounts shown for the annual performance 2015 comprise the respective provision for 2015 and the relevant additional/reduced expenditure for 2014.
2 The amounts paid out in 2016 were for multi-year performance 2013–2015, those paid out in 2015 were for 2012-2014.
3 Remuneration in kind/fringe benefits for 2016 including anniversary payments.
4 The compensation components that Markus Rieß received for his work at ERGO Group AG are included in the remuneration.
Remuneration in kind/fringe benefits for 2016 including expenditure for security.
Other: compensation, payable in four equal instalments, for the forfeited variable remuneration from the previous employer.

The following table shows the amounts payable for the variable remuneration.

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

Name	Set in	for	Annual performance[1, 3] €	Multi-year performance[2, 3] €	Total amounts payable €
Nikolaus von Bomhard[4]	**2016**	**2017**	**294,000**	**686,000**	**980,000**
	2015	2016	882,000	2,058,000	2,940,000
Giuseppina Albo	**2016**	**2017**	**430,500**	**1,004,500**	**1,435,000**
	2015	2016	388,500	906,500	1,295,000
Ludger Arnoldussen	**2016**	**2017**	**430,500**	**1,004,500**	**1,435,000**
	2015	2016	430,500	1,004,500	1,435,000
Thomas Blunck	**2016**	**2017**	**430,500**	**1,004,500**	**1,435,000**
	2015	2016	430,500	1,004,500	1,435,000
Doris Höpke	**2016**	**2017**	**430,500**	**1,004,500**	**1,435,000**
	2015	2016	388,500	906,500	1,295,000
Torsten Jeworrek	**2016**	**2017**	**619,500**	**1,445,500**	**2,065,000**
	2015	2016	619,500	1,445,500	2,065,000
Markus Rieß[5] (joined 16 September 2015)	**2016**	**2017**	**592,125**	**1,381,625**	**1,973,750**
thereof for Munich Reinsurance Company			236,250	551,250	787,500
	2015	2016	592,125	1,381,625	1,973,750
thereof for Munich Reinsurance Company			236,250	551,250	787,500
Peter Röder	**2016**	**2017**	**430,500**	**1,004,500**	**1,435,000**
	2015	2016	430,500	1,004,500	1,435,000
Jörg Schneider	**2016**	**2017**	**619,500**	**1,445,500**	**2,065,000**
	2015	2016	619,500	1,445,500	2,065,000
Joachim Wenning	**2016**	**2017**	**731,500**	**1,706,833**	**2,438,333**
	2015	2016	430,500	1,004,500	1,435,000
Total	**2016**	**2017**	**5,009,125**	**11,687,958**	**16,697,083**
	2015	2016	5,212,125	12,161,625	17,373,750

1 At the time of preparation of this report, no Supervisory Board resolution had yet been passed on the amounts to be paid for 2016. The amounts shown for annual performance remuneration are based on estimates, i.e. the relevant provisions and the additional/reduced expenditure for 2015 posted in the table on page 35.
2 The remuneration set for multi-year performance for 2016 is payable in 2019, that for 2017 in 2020.
3 The information on the assessment bases and parameters on page 31 f. for the amounts set for 2016 also applies to the amounts set for 2017.
4 The amounts set for 2017 are granted pro rata temporis for a period of four months.
5 The compensation components that Markus Rieß received for his work at ERGO Group AG are included in the remuneration.

Pension entitlements

Personnel expenses of €6.5m (6.1m) were incurred in the financial year to finance the pension entitlements for active members of the Board of Management. Of these, €1.5m was apportionable to defined benefit plans and €5.0m to defined contribution plans. As a consequence of the risk transfer to an external insurer under the defined contribution system, the visible pension costs since 2009 are noticeably higher. The Company accepts this increase in order to avoid higher costs in future and to eliminate long-term pension-specific risks. The following defined benefits, present values, contribution rates and personnel expenses result for the individual members of the Board of Management:

Pension entitlements

			Defined benefit plan	
Name	Financial year	Defined benefit[1]	Present value of defined benefit as at 31 December	Personnel expenses for provisions[2]
		€/year	€	€
Nikolaus von Bomhard[3]	**2016**	**407,100**	**16,653,577**	**287,233**
	2015	407,100	15,054,562	527,633
Giuseppina Albo[4, 5]	**2016**	**–**	**4,458**	**2,297**
	2015	–	–	686
Ludger Arnoldussen[4, 6]	**2016**	**157,500**	**4,003,478**	**357,138**
	2015	157,500	3,311,629	393,528
Thomas Blunck[4, 6]	**2016**	**120,000**	**3,184,449**	**160,734**
	2015	120,000	2,705,000	180,249
Doris Höpke[4, 5]	**2016**	**–**	**8,816**	**598**
	2015	–	–	604
Torsten Jeworrek[4, 7]	**2016**	**171,000**	**5,709,959**	**193,904**
	2015	171,000	5,000,570	213,884
Markus Rieß[4, 8] (joined 16 September 2015)	**2016**	**–**	**14,319**	**10,370**
thereof for Munich Reinsurance Company		–	14,319	10,370
	2015	–	–	–
thereof for Munich Reinsurance Company		–	–	–
Peter Röder[4, 7]	**2016**	**90,000**	**3,124,511**	**104,070**
	2015	90,000	2,760,386	113,204
Jörg Schneider[4, 6]	**2016**	**275,000**	**10,320,861**	**328,896**
	2015	275,000	9,151,294	356,457
Joachim Wenning[4, 6]	**2016**	**–**	**9,596**	**1,253**
	2015	–	–	1,395
Total	**2016**	**1,220,600**	**43,034,024**	**1,446,493**
	2015	1,220,600	37,983,441	1,787,640

See table on next page for footnotes

Pension entitlements

				Defined contribution plan	
Name	Financial year	Pension contribution rate for target total direct remuneration	Entitlement as at 31 December	Present value of entitlement as at 31 December	Personnel expenses
		%	€/year	€	€
Nikolaus von Bomhard[3]	**2016**	**17.00**	**222,085**	**7,639,349**	**714,000**
	2015	17.00	186,676	7,371,076	697,000
Giuseppina Albo[4, 5]	**2016**	**25.50**	**33,081**	–[9]	**471,750**
	2015	25.50	17,442	–[9]	414,375
Ludger Arnoldussen[4, 6]	**2016**	**14.75**	**93,956**	**3,912,302**	**302,375**
	2015	14.75	81,462	3,138,144	295,000
Thomas Blunck[4, 6]	**2016**	**16.25**	**109,650**	**4,471,819**	**333,125**
	2015	16.25	95,599	3,623,503	325,000
Doris Höpke[4, 5]	**2016**	**25.50**	**40,733**	–[9]	**471,750**
	2015	25.50	24,428	–[9]	414,375
Torsten Jeworrek[4, 7]	**2016**	**19.50**	**182,894**	**7,601,747**	**575,250**
	2015	19.50	158,167	6,092,019	565,500
Markus Rieß[4, 8] (joined 16 September 2015)	**2016**	**25.19**	**27,236**	**527,660**[10]	**743,125**
thereof for Munich Reinsurance Company		25.50	10,365	–[9]	286,875
	2015	25.19	6,056	148,851[10]	213,026
thereof for Munich Reinsurance Company		25.50	2,261	–[9]	79,953
Peter Röder[4, 7]	**2016**	**20.25**	**126,480**	**5,349,033**	**415,125**
	2015	20.25	105,744	4,159,381	405,000
Jörg Schneider[4, 6]	**2016**	**16.50**	**151,171**	**6,356,425**	**486,750**
	2015	16.50	131,119	5,119,359	478,500
Joachim Wenning[4, 6]	**2016**	**25.50**	**132,163**	–[9]	**522,750**
	2015	25.50	113,759	–[9]	510,000
Total	**2016**		**1,119,449**	**35,858,335**	**5,036,000**
	2015		920,452	29,652,333	4,317,776

1 In the case of Board members transferred from the old system to the new, the amount corresponds to the value of the annual vested pension at 31 December 2008.
2 Expenses for defined benefit plan, including provision for continued payment of salary for surviving dependants.
3 Entitled to an occupational pension in the event of premature or regular termination of employment.
4 Entitled to occupational pension in the event of termination of employment owing to disability.
5 Entitled to vested benefits under the Employers' Retirement Benefits Act in the event of premature or regular termination of employment.
6 Entitled to a reduced occupational pension on early retirement in the event of premature or regular termination of employment.
7 Entitled to a reduced occupational pension on early retirement in the event of premature termination of employment, and to an occupational pension in the event of regular termination of employment.
8 Entitled to vested benefits under the Employers' Retirement Benefits Act in the event of regular termination of employment.
9 Defined Contribution Plan within the meaning of IAS 19, Employee Benefits, so no present value shown.
10 Munich Reinsurance Company: see footnote 9; ERGO Group AG: No Defined Contribution Plan within the meaning of IAS 19, so present value shown.

Board of Management remuneration under the German Corporate Governance Code

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

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

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

Benefits granted in accordance with the German Corporate Governance Code

	Nikolaus von Bomhard				Giuseppina Albo			
	Chairman of the Board of Management				Board member			
€	2016	2016 (min)	2016 (max)	2015	2016	2016 (min)	2016 (max)	2015
Basic remuneration	1,260,000	1,260,000	1,260,000	1,230,000	555,000	555,000	555,000	487,500
Remuneration in kind/fringe benefits	35,783	35,783	35,783	33,564	21,959	21,959	21,959	96,010
Total	**1,295,783**	**1,295,783**	**1,295,783**	**1,263,564**	**576,959**	**576,959**	**576,959**	**583,510**
One-year variable remuneration								
Annual performance 2015				861,000				341,250
Annual performance 2016	882,000	0	1,764,000		388,500	0	777,000	
Multi-year variable remuneration								
Multi-year performance 2015–2017				2,009,000				796,250
Multi-year performance 2016–2018	2,058,000	0	4,116,000		906,500	0	1,813,000	
Other								
Total	**4,235,783**	**1,295,783**	**7,175,783**	**4,133,564**	**1,871,959**	**576,959**	**3,166,959**	**1,721,010**
Pension expenses	1,001,233	1,001,233	1,001,233	1,224,633	474,047	474,047	474,047	415,061
Total remuneration	**5,237,016**	**2,297,016**	**8,177,016**	**5,358,197**	**2,346,006**	**1,051,006**	**3,641,006**	**2,136,071**

→	Ludger Arnoldussen				Thomas Blunck			
	Board member				Board member			
€	2016	2016 (min)	2016 (max)	2015	2016	2016 (min)	2016 (max)	2015
Basic remuneration	615,000	615,000	615,000	600,000	615,000	615,000	615,000	600,000
Remuneration in kind/fringe benefits	90,384	90,384	90,384	38,717	31,700	31,700	31,700	33,996
Total	**705,384**	**705,384**	**705,384**	**638,717**	**646,700**	**646,700**	**646,700**	**633,996**
One-year variable remuneration								
Annual performance 2015				420,000				420,000
Annual performance 2016	430,500	0	861,000		430,500	0	861,000	
Multi-year variable remuneration								
Multi-year performance 2015–2017				980,000				980,000
Multi-year performance 2016–2018	1,004,500	0	2,009,000		1,004,500	0	2,009,000	
Other								
Total	**2,140,384**	**705,384**	**3,575,384**	**2,038,717**	**2,081,700**	**646,700**	**3,516,700**	**2,033,996**
Pension expenses	659,513	659,513	659,513	688,528	493,859	493,859	493,859	505,249
Total remuneration	**2,799,897**	**1,364,897**	**4,234,897**	**2,727,245**	**2,575,559**	**1,140,559**	**4,010,559**	**2,539,245**

→	Doris Höpke				Torsten Jeworrek			
	Board member				Board member			
€	2016	2016 (min)	2016 (max)	2015	2016	2016 (min)	2016 (max)	2015
Basic remuneration	555,000	555,000	555,000	487,500	885,000	885,000	885,000	870,000
Remuneration in kind/fringe benefits	33,356	33,356	33,356	29,884	37,801	37,801	37,801	182,311
Total	**588,356**	**588,356**	**588,356**	**517,384**	**922,801**	**922,801**	**922,801**	**1,052,311**
One-year variable remuneration								
Annual performance 2015				341,250				609,000
Annual performance 2016	388,500	0	777,000		619,500	0	1,239,000	
Multi-year variable remuneration								
Multi-year performance 2015–2017				796,250				1,421,000
Multi-year performance 2016–2018	906,500	0	1,813,000		1,445,500	0	2,891,000	
Other								
Total	**1,883,356**	**588,356**	**3,178,356**	**1,654,884**	**2,987,801**	**922,801**	**5,052,801**	**3,082,311**
Pension expenses	472,348	472,348	472,348	414,979	769,154	769,154	769,154	779,384
Total remuneration	**2,355,704**	**1,060,704**	**3,650,704**	**2,069,863**	**3,756,955**	**1,691,955**	**5,821,955**	**3,861,695**

Continued on next page

€	Markus Rieß Total[1] 2016	2016 (min)	2016 (max)	2015	Board member (joined 16 September 2015) thereof for Munich Reinsurance Company 2016	2016 (min)	2016 (max)	2015
Basic remuneration	976,250	976,250	976,250	280,365	337,500	337,500	337,500	94,063
Remuneration in kind/fringe benefits	115,717	115,717	115,717	7,430	39,677	39,677	39,677	801
Total	**1,091,967**	**1,091,967**	**1,091,967**	**287,795**	**377,177**	**377,177**	**377,177**	**94,864**
One-year variable remuneration								
Annual performance 2015				169,641				65,844
Annual performance 2016	592,125	0	1,184,250		236,250	0	472,500	
Multi-year variable remuneration								
Multi-year performance 2015–2017				395,828				153,635
Multi-year performance 2016–2018	1,381,625	0	2,763,250		551,250	0	1,102,500	
Other[2]	1,500,000	1,500,000	1,500,000	750,000	1,500,000	1,500,000	1,500,000	750,000
Total	**4,565,717**	**2,591,967**	**6,539,467**	**1,603,264**	**2,664,677**	**1,877,177**	**3,452,177**	**1,064,343**
Pension expenses	753,495	753,495	753,495	213,026	297,245	297,245	297,245	79,953
Total remuneration	**5,319,212**	**3,345,462**	**7,292,962**	**1,816,290**	**2,961,922**	**2,174,422**	**3,749,422**	**1,144,296**

€	Peter Röder Board member 2016	2016 (min)	2016 (max)	2015	Jörg Schneider Board member 2016	2016 (min)	2016 (max)	2015
Basic remuneration	615,000	615,000	615,000	600,000	885,000	885,000	885,000	870,000
Remuneration in kind/fringe benefits	35,034	35,034	35,034	34,932	37,011	37,011	37,011	34,627
Total	**650,034**	**650,034**	**650,034**	**634,932**	**922,011**	**922,011**	**922,011**	**904,627**
One-year variable remuneration								
Annual performance 2015				420,000				609,000
Annual performance 2016	430,500	0	861,000		619,500	0	1,239,000	
Multi-year variable remuneration								
Multi-year performance 2015–2017				980,000				1,421,000
Multi-year performance 2016–2018	1,004,500	0	2,009,000		1,445,500	0	2,891,000	
Other								
Total	**2,085,034**	**650,034**	**3,520,034**	**2,034,932**	**2,987,011**	**922,011**	**5,052,011**	**2,934,627**
Pension expenses	519,195	519,195	519,195	518,204	815,646	815,646	815,646	834,957
Total remuneration	**2,604,229**	**1,169,229**	**4,039,229**	**2,553,136**	**3,802,657**	**1,737,657**	**5,867,657**	**3,769,584**

€	Joachim Wenning Board member 2016	2016 (min)	2016 (max)	2015
Basic remuneration	615,000	615,000	615,000	600,000
Remuneration in kind/fringe benefits	139,039	139,039	139,039	33,699
Total	**754,039**	**754,039**	**754,039**	**633,699**
One-year variable remuneration				
Annual performance 2015				420,000
Annual performance 2016	430,500	0	861,000	
Multi-year variable remuneration				
Multi-year performance 2015–2017				980,000
Multi-year performance 2016–2018	1,004,500	0	2,009,000	
Other				
Total	**2,189,039**	**754,039**	**3,624,039**	**2,033,699**
Pension expenses	524,003	524,003	524,003	511,395
Total remuneration	**2,713,042**	**1,278,042**	**4,148,042**	**2,545,094**

1 The compensation components and pension contributions that Markus Rieß received for his work at ERGO Group AG are included in the total remuneration.
2 Markus Rieß: Compensation, payable in four equal instalments, for the forfeited variable remuneration from the previous employer.

Remuneration paid in accordance with the German Corporate Governance Code

	Nikolaus von Bomhard Chairman of the Board of Management		Giuseppina Albo Board member		Ludger Arnoldussen Board member	
€	2016	2015	2016	2015	2016	2015
Basic remuneration	1,260,000	1,230,000	555,000	487,500	615,000	600,000
Remuneration in kind/fringe benefits	35,783	33,564	21,959	96,010	90,384	38,717
Total	**1,295,783**	**1,263,564**	**576,959**	**583,510**	**705,384**	**638,717**
One-year variable remuneration						
Annual performance 2015[1]		972,930		412,913		411,600
Annual performance 2016[2]	858,451		386,713		395,586	
Multi-year variable remuneration						
Multi-year performance 2013–2015[1]		1,901,200		–		903,070
Multi-year performance 2014–2016[3]	1,757,473		176,609		869,456	
Other						
Total	**3,911,707**	**4,137,694**	**1,140,281**	**996,423**	**1,970,426**	**1,953,387**
Pension expenses	1,001,233	1,224,633	474,047	415,061	659,513	688,528
Total remuneration	**4,912,940**	**5,362,327**	**1,614,328**	**1,411,484**	**2,629,939**	**2,641,915**

→

	Thomas Blunck Board member		Doris Höpke Board member		Torsten Jeworrek Board member	
€	2016	2015	2016	2015	2016	2015
Basic remuneration	615,000	600,000	555,000	487,500	885,000	870,000
Remuneration in kind/fringe benefits	31,700	33,996	33,356	29,884	37,801	182,311
Total	**646,700**	**633,996**	**588,356**	**517,384**	**922,801**	**1,052,311**
One-year variable remuneration						
Annual performance 2015[1]		403,200		283,238		694,260
Annual performance 2016[2]	456,933		497,280		624,208	
Multi-year variable remuneration						
Multi-year performance 2013–2015[1]		949,620		–		1,410,465
Multi-year performance 2014–2016[3]	869,456		265,417		1,260,711	
Other						
Total	**1,973,089**	**1,986,816**	**1,351,053**	**800,622**	**2,807,720**	**3,157,036**
Pension expenses	493,859	505,249	472,348	414,979	769,154	779,384
Total remuneration	**2,466,948**	**2,492,065**	**1,823,401**	**1,215,601**	**3,576,874**	**3,936,420**

See table on next page for footnotes

€	Markus Rieß Board member (joined 16 Sept. 2015) Total[4] 2016	2015	thereof for Munich Reinsurance Company 2016	2015	Peter Röder Board member 2016	2015
Basic remuneration	976,250	280,365	337,500	94,063	615,000	600,000
Remuneration in kind/fringe benefits	115,717	7,430	39,677	801	35,034	34,932
Total	**1,091,967**	**287,795**	**377,177**	**94,864**	**650,034**	**634,932**
One-year variable remuneration						
Annual performance 2015[1]		159,274		73,745		483,000
Annual performance 2016[2]	584,565		228,690		427,228	
Multi-year variable remuneration						
Multi-year performance 2013–2015[1]		–		–		921,690
Multi-year performance 2014–2016[3]	–		–		869,456	
Other[5]	1,500,000	750,000	1,500,000	750,000		
Total	**3,176,532**	**1,197,069**	**2,105,867**	**918,609**	**1,946,718**	**2,039,622**
Pension expenses	753,495	213,026	297,245	79,953	519,195	518,204
Total remuneration	**3,930,027**	**1,410,095**	**2,403,112**	**998,562**	**2,465,913**	**2,557,826**

€	Jörg Schneider Board member 2016	2015	Joachim Wenning Board member 2016	2015
Basic remuneration	885,000	870,000	615,000	600,000
Remuneration in kind/fringe benefits	37,011	34,627	139,039	33,699
Total	**922,011**	**904,627**	**754,039**	**633,699**
One-year variable remuneration				
Annual performance 2015[1]		675,990		546,000
Annual performance 2016[2]	607,915		468,901	
Multi-year variable remuneration				
Multi-year performance 2013–2015[1]		1,354,605		903,070
Multi-year performance 2014–2016[3]	1,243,091		869,456	
Other				
Total	**2,773,017**	**2,935,222**	**2,092,396**	**2,082,769**
Pension expenses	815,646	834,957	524,003	511,395
Total remuneration	**3,588,663**	**3,770,179**	**2,616,399**	**2,594,164**

1 In the Annual Report 2015, the amounts to be paid for the 2015 annual performance and multi-year performance 2013–2015 were recognised on the basis of the reserves, as no Supervisory Board resolution had yet been passed on the amounts to be paid for the actual bonus amounts. The Annual Report for 2016 shows the actual amounts set by the Supervisory Board and to be paid out for 2015.
2 At the time of preparation of this report, no Supervisory Board resolution had yet been passed on the amounts to be paid for the 2016 annual performance. The amount shown for the 2016 annual performance remuneration is based on estimates and the relevant provisions posted.
3 At the time of preparation of this report, no Supervisory Board resolution had yet been passed on the amounts to be paid for the 2014–2016 multi-year performance. The amount shown for the 2014-2016 multi-year performance remuneration is based on estimates and the relevant provisions posted.
4 The compensation components and occupational benefits that Markus Rieß received for his work at ERGO Group AG are included in the remuneration.
5 Markus Rieß: Compensation, payable in four equal instalments, for the forfeited variable remuneration from the previous employer.

Total remuneration of the Supervisory Board

The provisions in place since the financial year 2014 provide for fixed remuneration only. Each member of the Supervisory Board receives annual remuneration of €90,000. The Chairman of the Supervisory Board receives annual remuneration of €180,000, and the Deputy Chairman annual remuneration of €135,000.

Members of the Audit Committee each receive an additional €45,000; members of the Personnel Committee each receive an extra €27,000; and members of the Standing Committee each receive an additional €13,500. The Chairs of these committees receive double the amounts stated for members. No additional remuneration is paid for serving on the Nomination Committee or the Conference Committee.

In addition, members of the Supervisory Board receive an attendance fee of €1,000 for each Supervisory Board meeting and each meeting of a Supervisory Board committee – with the exception of the Conference Committee.

Remuneration of Supervisory Board members in accordance with Article 15 of the Articles of Association[1]

		Fixed remuneration[2]		
Name	Financial year	Annual	For committee work	Total
		€	€	€
Bernd Pischetsrieder	**2016**	**186,000**	**135,000**	**321,000**
Chairman	2015	187,000	135,000	322,000
Marco Nörenberg	**2016**	**141,000**	**13,500**	**154,500**
Deputy Chairman	2015	142,000	13,500	155,500
Ann-Kristin Achleitner	**2016**	**96,000**	**38,750**	**134,750**
	2015	97,000	1,000	98,000
Clement B. Booth (from 27 April 2016)	**2016**	**70,500**	**–**	**70,500**
	2015	–	–	–
Frank Fassin	**2016**	**96,000**	**–**	**96,000**
	2015	97,000	–	97,000
Benita Ferrero-Waldner	**2016**	**96,000**	**–**	**96,000**
	2015	96,000	–	96,000
Christian Fuhrmann	**2016**	**96,000**	**51,000**	**147,000**
	2015	96,000	51,000	147,000
Ursula Gather	**2016**	**95,000**	**–**	**95,000**
	2015	96,000	–	96,000
Peter Gruss	**2016**	**96,000**	**–**	**96,000**
	2015	96,000	–	96,000
Gerd Häusler	**2016**	**96,000**	**–**	**96,000**
	2015	97,000	–	97,000
Anne Horstmann	**2016**	**96,000**	**50,000**	**146,000**
	2015	97,000	51,000	148,000
Ina Hosenfelder	**2016**	**96,000**	**–**	**96,000**
	2015	97,000	–	97,000
Henning Kagermann	**2016**	**95,000**	**110,500**	**205,500**
	2015	96,000	110,500	206,500
Wolfgang Mayrhuber	**2016**	**95,000**	**42,500**	**137,500**
	2015	97,000	42,500	139,500
Beate Mensch	**2016**	**96,000**	**–**	**96,000**
	2015	96,000	–	96,000
Ulrich Plottke	**2016**	**96,000**	**–**	**96,000**
	2015	97,000	–	97,000
Anton van Rossum (until 27 April 2016)	**2016**	**33,000**	**17,000**	**50,000**
	2015	95,000	51,000	146,000
Andrés Ruiz Feger	**2016**	**96,000**	**13,500**	**109,500**
	2015	97,000	13,500	110,500
Gabriele Sinz-Toporzysek	**2016**	**96,000**	**–**	**96,000**
	2015	97,000	–	97,000
Ron Sommer	**2016**	**96,000**	**–**	**96,000**
	2015	97,000	–	97,000
Angelika Wirtz	**2016**	**96,000**	**29,000**	**125,000**
	2015	96,000	29,000	125,000
Total	**2016**	**2,059,500**	**500,750**	**2,560,250**
	2015	2,066,000	498,000	2,564,000

1 Plus value-added tax (USt) in each case, in accordance with Article 15 (6) of the Articles of Association.
2 Including attendance fees in each case, in accordance with Article 15 (4) of the Articles of Association.

Remuneration of Supervisory Board members for membership of supervisory boards at Munich Reinsurance Company subsidiaries, in accordance with the companies' respective Articles of Association[1]

		Fixed remuneration		
Name	Financial year	Annual[2]	For committee work[2]	Total
		€	€	€
Frank Fassin	**2016**	**35,000**	**–**	**35,000**
	2015	29,822	–	29,822
Anne Horstmann	**2016**	**52,500**	**7,500**	**60,000**
	2015	44,110	5,932	50,042
Marco Nörenberg	**2016**	**35,000**	**–**	**35,000**
	2015	33,849	2,425	36,274
Ulrich Plottke	**2016**	**35,000**	**17,500**	**52,500**
	2015	21,575	10,260	31,835
Gabriele Sinz-Toporzysek	**2016**	**15,000**	**–**	**15,000**
	2015	15,000	–	15,000
Total	**2016**	**172,500**	**25,000**	**197,500**
	2015	144,356	18,617	162,973

1 Plus value-added tax (USt) in each case, in accordance with the relevant provisions of the respective Group companies' Articles of Association.
2 Including attendance fees in each case insofar as provided for under the relevant provisions of the Articles of Association.

Macroeconomic and industry environment

The pace of growth in the global economy slowed in 2016, weighed down by weaker economic dynamics in the USA and recessions in Brazil and Russia. China's growth declined for a further successive year. Momentum remained solid overall in the eurozone, and Germany performed somewhat better than the eurozone average.

Capital markets

The European Central Bank (ECB) intensified its expansive monetary policy in 2016. It lowered the deposit rate, broadened the scope of its bond purchases, and increased the volume of its monthly purchases from €60bn to €80bn. The ECB also announced its intention to continue to buy bonds until at least December 2017, even though the volume of purchases would be reduced. By contrast, the US Federal Reserve continued its monetary tightening cycle with an interest-rate hike in December 2016.

Yields on ten-year government bonds

%	31.12.2016	31.12.2015
USA	2.4	2.3
Germany	0.2	0.6

The global low-interest-rate environment continued to pose great challenges for investment by insurers. Yields on ten-year government bonds in Germany and the USA fell at the start of the year, and in July hit historical lows of –0.19% and 1.36% respectively. The reasons for this included weak global growth, low inflation, loose monetary policies, uncertainty after the Brexit vote, and a flight to safe-haven investments. Yields did not start to climb again more strongly until the final months of the year. This was due to higher inflation expectations, anticipation that policy rates would increase in the USA, and portfolio restructuring after the election of the new US President.

Equity markets

	31.12.2016	31.12.2015
DJ EuroStoxx 50	3,291	3,268
Dow Jones Index	19,763	17,425

Equity markets were subject to increased volatility during the year – due mainly to concerns about China's economic growth at the start of the year and uncertainty in the wake of the Brexit vote. But growth across the year as a whole was positive. The DJ EURO STOXX 50 went up by around 1% in the period under review, the DAX 30 climbed by about 7%, and the Dow Jones Index saw an increase of around 13%.

The euro exchange rate fell slightly against most major currencies in the course of the year, and only increased substantially against the pound sterling. In terms of the annual average, the euro's value against the US dollar remained approximately the same in 2016 compared with the previous year, while it rose slightly (3%) against the Canadian dollar and more substantially (13%) against the pound sterling. Further information on exchange rates can be found in the notes to the consolidated financial statements on page 116.

Insurance industry

According to provisional estimates, in primary insurance global premium income in the property-casualty segment showed solid growth in 2016 when adjusted for inflation. Most major markets in North America and Europe grew robustly, while growth stagnated in Japan and Australia. China and India continued to show dynamic premium volume growth, while Brazil saw a sharp contraction.

According to provisional estimates, global premium income in life primary insurance grew only moderately in 2016 when adjusted for inflation. The main drivers of this development included high growth rates in China, India and Brazil, and stable growth in the USA, Canada and France. In other major developed markets such as Italy, Japan and Korea, premium income decreased appreciably.

First estimates show that premium in the German insurance market was stagnant in 2016. Weighed down by developments in life insurance business, which was marked by a significant decline in single-premium business in life insurance. On the other hand, premium volume growth in property-casualty business and health insurance stayed fairly robust.

Throughout 2016, renewal prices of property-casualty reinsurance business continued to fall, albeit at a slower pace than in the previous year. A slight increase in demand for reinsurance helped to support the figures. The influx of alternative capital was also not as strong as in previous years, but still contributed more than enough capacity to reinsurance markets. Market conditions remained difficult overall, not least because of the continuing robust capital base held by reinsurance companies. In the renewals as at 1 January 2017, prices softened only slightly on average.

Important tools of corporate management

Munich Re's management philosophy – based on value creation

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

The framework for any business activity is our risk strategy, from which we derive various limitations and reporting thresholds. A key element is our economic capital resources, which we determine in accordance with the Solvency II supervisory regime, which came into force in 2016. We also observe a range of important additional conditions, including national accounting regulations, tax aspects, liquidity requirements, supervisory parameters, and rating agency requirements.

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

– 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 shareholder point of view.
– With value-based corporate management tools, we ensure an economic valuation and the comparability of alternative initiatives.
– We clearly assign responsibilities and specify the levers for adding value for both management and staff.

Contrasting aspects have to be evaluated when selecting suitable target figures. On the one hand, target figures should be simple and easy to understand for investors, staff, and the public. On the other 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.

The Group's corporate management tools

The two main corporate management tools at Group level are economic earnings and the return on risk-adjusted capital after tax (RORAC).

Economic earnings

The starting point for value-based management is the economic value added in a fixed period 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 in the period – such as capital measures, and the change in regulatory restrictions.

Economic earnings	=	Eligible own funds 31 Dec.	–	Eligible own funds 1 Jan.	±	Capital measures, etc.

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. The development of eligible own funds is also considered because of the effect of changed capital market parameters on the assets and liabilities sides of the Solvency II balance sheet.

In applying the uniform Group performance-measurement model of economic earnings in the individual fields of business, we use conceptually consistent value-based and risk-capital-based measurement approaches that are individually geared to the characteristics of each of the respective businesses. They include the value added by property-casualty reinsurance and Munich Health, and the excess return from our investment activity (asset-liability management). In life reinsurance, we apply value added by new business and the change in value of in-force business, which are based on the Solvency II balance sheet. The management tool economic earnings is used directly for ERGO, as no adjustments for this field of business are necessary. Group corporate management is designed so that we are in a position to maximise value creation while observing subsidiary parameters.

Return on risk-adjusted capital (RORAC)

$$\text{RORAC}^1 = \frac{\text{Net income} - \text{Interest rate} \times (1 - \text{Tax rate}) \times \text{Additional available economic equity}}{\text{Capital requirement}}$$

Munich Re's value orientation is also reflected in the after-tax return on risk-adjusted capital (RORAC). With the entry into force of Solvency II as of 1 January 2016 and the changes associated with this, we have adjusted the calculation to the key indicators used under Solvency II.

RORAC is a mixture of accounting ratios and economic indicators. It relates the performance indicator customary in the capital markets (IFRS consolidated result) – which we adjust to eliminate the risk-free return after tax on additional available economic equity – to the necessary capital requirement. The capital requirement corresponds to 1.75 times the solvency capital requirement under Solvency II, as determined on the basis of our certified internal risk model. Information on the internal risk model is provided on page 67 ff.

The numerator in the formula comprises the published IFRS net income after deduction of risk-free interest after tax (interest rate x [1 – tax rate]) generated on capital not subject to risk within the given risk tolerance. The latter refers to the additional available economic equity. This corresponds to the surplus of eligible own funds reduced by the subordinated liabilities over the solvency capital requirement multiplied by 1.75. Any excess of liabilities over assets is not taken into consideration.

Other tools of corporate management

IFRS consolidated result

The IFRS consolidated result is a performance measure derived from our external accounting. It serves as an important criterion for investors, analysts and the general public to assess corporate performance. With its standardised measurement basis, the IFRS consolidated result can be compared to the results of our market competitors and is thus a management tool used in Munich Re's financial reporting.

Combined ratio

The combined ratio is regularly posted for property-casualty business and international health 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. Expenses for claims and benefits mainly include paid claims, the change in claims provisions, and the bulk of other underwriting expenses.[2] Operating expenses chiefly comprise the costs arising in the acquisition of new business and for the ongoing administration of insurance contracts.

For us, the combined ratio by itself is not a sufficiently informative performance measure. It is 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.

1 We use the figures set at the beginning of the period in order to calculate RORAC.
2 Expenses for claims and benefits not taken into account in the calculation of the combined ratio are set out on page 122 in the notes to the consolidated financial statements.

Business performance

Board of Management's overall assessment of the business performance and situation of the Group

Munich Re posted a consolidated profit of €2.6bn for the year, thus meeting its profit target of €2.3–2.8bn announced in March. Property-casualty reinsurance ↗ made a pleasing contribution of €2.0bn (2.9bn) to this result; as in previous years, major losses once again remained below the volume to be expected. The profit in life reinsurance totalled €459m (345m), and benefited in particular from positive reserving effects, mainly in the USA. As anticipated in the Strategy Programme announced in June 2016, the ERGO field of business posted a slight loss of €40m (loss of €227m). For the last time before being disbanded as at 1 February 2017, the Munich Health field of business contributed a gratifying profit of €137m (88m).

Business performance of the Group and overview of investment performance

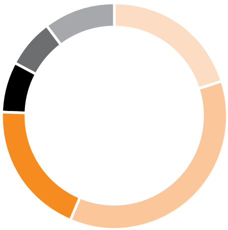
Key figures

		2016	Prev. year	Change
				%
Gross premiums written	€bn	48.9	50.4	–3.0
Combined ratio				
Reinsurance property-casualty	%	95.7	89.7	
ERGO Property-casualty Germany	%	97.0	97.9	
ERGO International	%	99.0	104.7	
Munich Health[1]	%	98.5	99.9	
Technical result[2]	€m	2,815	3,924	–28.3
Investment result	€m	7,567	7,536	0.4
Result from insurance-related investments	€m	326	140	132.6
Operating result	€m	4,025	4,819	–16.5
Taxes on income	€m	–760	–476	–59.8
Risk-adjusted capital (RORAC)	%	10.9	11.5	
Economic earnings	€bn	2.3	5.3	–57.7
Return on equity (RoE)[3]	%	8.1	10.0	
Consolidated result	€m	2,581	3,122	–17.3
Investments	€bn	219.4	215.1	2.0
Insurance-related investments	€bn	9.6	9.2	4.3
Net technical provisions	€bn	202.2	198.5	1.9
Equity	€bn	31.8	31.0	2.6

1 Excluding health insurance conducted like life insurance.
2 Previous year's figures adjusted owing to IAS 8; see "Changes in accounting policies and other adjustments".
3 The RoE is calculated on the basis of the consolidated result, including the result attributable to non-controlling interests. To calculate the average equity for the year under review, we use the figures as at 31 December 2015 (€31.0bn), 31 March 2016 (€31.8bn), 30 June 2016 (€32.0bn), 30 September 2016 (€32.4bn) and 31 December 2016 (€31.8bn) as a basis.

We generated more than half of our gross premiums written in reinsurance. Munich Re's premium volume was down in the reporting year because of negative currency translation effects, reduced shares in large-volume treaties, and the sale of ERGO Italia.

Group premium income



Life reinsurance	20%	(21%)
Property-casualty reinsurance	36%	(35%)
ERGO Life and Health Germany	19%	(19%)
ERGO Property-casualty Germany	7%	(6%)
ERGO International	7%	(8%)
Munich Health	10%	(11%)

There were fewer major losses than anticipated, but much more than in the previous year. This is also reflected in the combined ratio for property-casualty reinsurance.

The RORAC for the full year 2016 was below our target of 15%. This target, which we set for the first time in 2006 when market interest rates were significantly higher, is difficult to reach in the current environment of very low interest rates. By posting a consolidated profit of €2.6bn, we were able to reach our result target for 2016, namely to realise a profit of €2.3–2.8bn.

Economic earnings were attributable to factors from new and in-force business deriving from underwriting, and to the effects from changes in capital market parameters. With regard to the latter, we benefited especially from positive effects from foreign currencies, reduced risk spreads for fixed-interest securities, and higher share prices. Persistently low interest rates had a contrary effect, especially at ERGO. Operational value creation at ERGO was impacted by negative one-off effects in connection with the Strategy Programme, but for the rest of the Group it was gratifying.

The revaluation of balance-sheet items in foreign currencies at period-end exchange rates led to a positive currency result of €485m (–213m), which is recognised under the "other non-operating result". We benefited in particular from the depreciation of the British pound as a consequence of the Brexit referendum result in the second quarter.

The consolidated result of €2.6bn (3.1bn) for 2016 was below the level of the previous year. The lower technical result and the costs of the ERGO Strategy Programme were only partly offset by gratifying investment and currency translation results.

In the year under review, our effective tax rate was 22.7% (13.2%), which is within the range of 20–25% expected for the Group.

Information on events after the balance sheet date can be found on page 167.

Investment mix

	Carrying amounts		Unrealised gains/losses[1]		Fair values	
€m	31.12.2016	Prev. year	31.12.2016	Prev. year	31.12.2016	Prev. year
Land and buildings, including buildings on third-party land	4,444	4,317	2,413	2,273	6,857	6,590
Investments in affiliated companies, in associates and joint ventures	1,711	1,278	903	725	2,445	1,831
Loans	53,691	53,516	13,591	12,610	67,282	66,126
Other securities available for sale	147,843	141,543	11,573	10,332	147,843	141,543
Thereof: Fixed-interest	132,018	127,661	8,649	7,886	132,018	127,661
Thereof: Non-fixed-interest	15,826	13,882	2,924	2,446	15,826	13,882
Other securities at fair value through profit or loss	2,672	2,551	0	0	2,672	2,551
Thereof: Derivatives	2,184	2,107	0	0	2,184	2,107
Deposits retained on assumed reinsurance	5,240	7,253	0	0	5,240	7,253
Other investments	3,814	4,635	0	0	3,814	4,635
Total	**219,416**	**215,093**	**28,480**	**25,941**	**236,153**	**230,529**

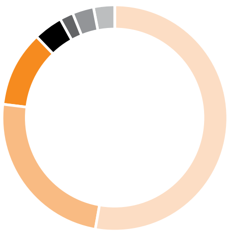
1 Including on- and off-balance-sheet unrealised gains and losses.

The carrying amount of our investment portfolio – which continues to be dominated by fixed-interest securities and loans – increased largely on account of declining interest rates and the development of exchange rates. Other fixed-interest securities available for sale were up owing to acquisitions, falling interest rates and exchange-rate developments. There was a reduction in deposits retained on assumed reinsurance due to the termination of life reinsurance treaties.

The increase in net unrealised gains on other securities available for sale is due primarily to lower interest rates.

Fixed-interest portfolio by economic category[1]

Total: €207bn (203bn)



Government bonds[2]	53%	(52%)
Thereof: Inflation-linked bonds	9%	(8%)
Covered bonds	24%	(24%)
Corporate bonds	11%	(10%)
Cash positions/other	4%	(4%)
Structured products (credit structures)	2%	(2%)
Bank bonds	3%	(3%)
Policy and mortgage loans	3%	(3%)

1 Presentation essentially shows fixed-interest securities and loans, including deposits and cash at banks, at fair value. The approximation is not fully comparable with IFRS figures.
2 Including other public-sector issuers and government-guaranteed bank bonds.

In the period under review, we expanded our portfolio of government and corporate bonds, but reduced our investments in covered bonds, bank bonds, and cash.

Over half of our fixed-interest portfolio is invested in government bonds. The vast majority of these continue to come from countries with a high credit rating. Our portfolio of German and US government bonds at fair value totals €29.6bn (29.0bn) and €19.9bn (20.0bn) respectively, which is equivalent to 14.3% and 9.6% of the portfolio of interest-bearing securities. The portfolio includes government bonds totalling €3.5bn (3.2bn) from Italy and €3.4bn (3.7bn) from Spain, which each account for around 1.7% of our portfolio of interest-bearing securities. We do not hold bonds from Greece, Cyprus or Ukraine. We reinvested above all in supranational companies, and in Belgian, French and Canadian government bonds. In the year under review, we reduced our bond holdings mainly from issuers in Germany, the UK, the USA, and Portugal. The still-falling interest-rate levels entailed higher fair values in our government bond portfolio, especially for the German securities. The purchase of government bonds from emerging markets is also part of our balanced investment strategy; they account for 8.1% of our government bond portfolio.

The emphasis of our commitment in covered bonds remained on German securities, with around 35%. We also hold bonds from France (20%) and the United Kingdom (9%) in our portfolio.

The regional weighting of corporate bonds in our portfolio is 39% for the USA and 33% for the eurozone. Our credit exposure is increased by a further percentage point through derivatives.

Our portfolio of government bonds, covered bonds and corporate bonds has a good rating structure: As at 31 December 2016, some 85% of securities were rated AAA to A.

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

The portfolio of structured credit products at fair values increased moderately to €4.8bn (4.7bn) as a result of acquisitions. This asset class involves securitised receivables (asset-backed securities or mortgage-backed securities), e.g. securitisations of real estate finance, consumer credit or student loans. Around 58% of our portfolio of asset- and mortgage-backed securities have a rating of AAA.

The carrying amount of our equity portfolio (before taking derivatives into account, and including investments in affiliated companies, associates and joint ventures at fair value) rose in the course of the year due to acquisitions and the positive trend on the stock markets. Our equity-backing ratio amounted to 6.1% (5.2%); including derivatives, it came to 5.0% (4.8%). Besides this, we are protecting ourselves against accelerated inflation in an environment of continuing low interest rates. For this, we hold inflation-linked bonds with a volume of €9.9bn (8.9bn) at fair value, and inflation-linked swaps with an exposure of €0.2bn (3.8bn). Real assets like shares, property, commodities, and investments in infrastructure, renewable energies and new technologies also serve as protection against inflation. Additionally, our investments in real assets have a positive diversification effect on the overall portfolio.

Investment result[1]

	2016	Return[2]	Prev. year	Return[2]
	€m	%	€m	%
Regular income	6,663	2.8	7,370	3.1
Write-ups/write-downs of non-derivative investments	–400	–0.2	–754	–0.3
Gains/losses on the disposal of non-derivative investments	2,603	1.1	2,693	1.1
Net gains on derivatives	–713	–0.3	–1,226	–0.5
Other income/expenses	–586	–0.2	–548	–0.2
Total	**7,567**	**3.2**	**7,536**	**3.2**

1 Details of the result by type of investment are shown on page 155 in the notes to the consolidated financial statements.
2 Return in % p.a. on the average value of the investment portfolio at the quarterly reporting dates. The overall investment portfolio used to determine the return for 2016 (3.2%) is calculated as the mean value of the investment portfolios (carrying amounts) as at 31 December 2015 (€215,093m), 31 March 2016 (€214,828m), 30 June 2016 (€218,805m), 30 September 2016 (€222,040m) and 31 December 2016 (€219,416m), and the off-balance-sheet unrealised gains and losses (excluding owner-occupied property) as at 31 December 2015 (€15,436m), 31 March 2016 (€18,114m), 30 June 2016 (€18,714m), 30 September 2016 (€19,784m) and 31 December 2016 (€16,738m).

Owing to the ongoing low return on reinvestments, the amount of regular income fell against the previous year. Positive currency translation effects were unable to compensate for lower interest payments from fixed-interest securities. Our reinvestment return was 1.8% (1.8%). Due to the low levels of interest rates in the year under review, yields on new investments remained far lower than the average return on our existing portfolio of fixed-interest investments. The decrease in regular income is also due to lower interest income on deposits resulting from the termination of contracts in life reinsurance.

We posted lower net write-downs of non-derivative investments, particularly on our share portfolio.

In the year under review, we generated lower net gains on the disposal of non-derivative investments. The reduction is primarily attributable to our equity portfolio and because we had realised a positive one-off effect in the previous year from the almost complete acquisition of 13th & F Associates Limited Partnership Columbia Square (13th & F).

The negative balance from write-ups and write-downs and losses on the disposal of derivatives improved significantly on the previous year. This improvement stems mainly from interest-rate derivatives (particularly from the ERGO interest-rate hedging programme) and from commodity derivatives. Our equity derivatives showed higher losses than in the previous year. The total return on our equity portfolio including equity derivatives was 2.6% (5.2%).

Result from equities and equity derivatives[1]

€m	2016	Prev. year
Regular income	556	618
Write-downs	–323	–488
Realised gains/losses	440	1,018
Result from equities	**672**	**1,148**
Change in on-balance-sheet unrealised gains and losses in equity (gross)	478	176
Result from equity derivatives	–777	–555
Total	**373**	**769**

1 To calculate the total annualised returns on our portfolio, we obtain the overall result shown in the table from the mean value of these figures: Equity portfolio (carrying amounts) at 31 December 2015 (€13,882m), 31 March 2016 (€14,404m), 30 June 2016 (€12,661m), 30 September 2016 (€14,921m) and 31 December 2016 (€15,826m).

Reinsurance – Life

Key figures

		2016	Prev. year	Change
				%
Gross premiums written	€m	10,001	10,536	–5.1
Share of gross premiums written in reinsurance	%	35.9	37.3	
Share of international business in gross premiums written	%	96.2	96.7	
Technical result	€m	487	335	45.4
Investment result	€m	629	898	–29.9
Operating result	€m	562	500	12.4
Consolidated result	€m	459	345	32.8

Premium

We write the majority of our business in non-euro currencies, with 33% of premium generated in Canadian dollars and 27% in US dollars. Currency translation effects therefore have a significant impact on premium development. If exchange rates had remained unchanged, our premium income would only have fallen by 2.6%, because a large treaty was renewed at a reduced volume with effect from 2016.

The prolonged low-interest-rate phase and sluggish economies in many of our key markets had some impact on our clients' business, and curbed demand for reinsurance. In addition, we saw a further increase in competition in several markets. In Asia and the USA, our new business again developed positively. The conclusion of a number of large new treaties, particularly in Canada and Australia, will not be fully reflected in premium income until 2017.

Result

The technical result showed a notable improvement on the previous year, and exceeded our expectations. Claims experience was impacted by high expenditure for single mortality claims with high sums insured, but was nevertheless within the range of normal volatility. The result also benefited overall from a number of one-off and reserving effects. Geographically speaking, North America and the European markets were the main contributors to the gratifying result, but Asia also again delivered a solid share to the overall result. Business in the USA and Australia largely developed in line with our expectations.

The investment result was appreciably below the prior year's level, mainly on account of lower interest income on deposits resulting from the termination of contracts and decreased gains on the disposal of equities.

Our individual core markets

Based on premium volume, over half (around 55%) of our global life reinsurance business is written in North America, where Canada (approximately 30%) continues to rank before the USA (about 25%). Around a fifth of our premium comes from Europe, with approximately 10% generated in the United Kingdom and about 5% in Germany. Further substantial shares derive from Asia (around 10%) and Australia/New Zealand (approximately 5%). We are also well positioned in Africa and Latin America, but due to the small size of the markets their share of our global business is low (about 5% in total).

Our Canadian branch, Munich Re, Toronto (Life), generated premium income of €3.0bn (3.7bn) in the life reinsurance segment. The decrease is largely attributable to the fact that a large treaty was renewed at a reduced volume with effect from 2016. In addition, a newly concluded transaction will not be fully reflected in premium income until 2017. The unit maintained its leading market position and again posted a very gratifying technical result that was even higher than in the prior year, thus accounting for a disproportionately large contribution to the overall result.

In the USA, our subsidiary Munich American Reassurance Company posted an increase in gross premium income to €2.6bn (2.5bn). We therefore continue to be one of the leading reinsurers in the world's largest market. The technical result showed an improvement on the prior year, especially owing to a number of reserving effects that were positive overall. Claims expenditure was within the normal range of random fluctuation, but somewhat exceeded our expectations chiefly on account of expenditure for several high mortality claims. We are very satisfied with new business performance, both in terms of volume and profitability.

Premium income in Europe fell to €1.9bn (2.1bn), of which €1.3bn (1.2bn) was from our branch in the United Kingdom, and a further €382m (344m) from Germany.

Growth in the United Kingdom largely stemmed from longevity business. The technical result was significantly up on the previous year's level, thanks to a number of special effects such as the departure of ERGO Previdenza from the consolidated group. The reinsurance business written with the former subsidiary has been accounted for in the result of the life reinsurance segment starting in the third quarter of 2016.

In Asia, our premium income climbed to €1,008m (910m). New business continued to develop very well. With our broad diversification, we are in a position to benefit from the growth potential in the region by providing client and market-specific solutions. The technical result was within the expected range, albeit somewhat lower than the record level achieved the previous year. ↗

At our subsidiary Munich Reinsurance Company of Australasia Ltd., which writes our life reinsurance business in Australia and New Zealand, premium income increased to €729m (658m). After achieving a break-even result in the previous year, we posted a deficit in 2016, largely owing to declining interest rates and randomly higher claims expenditure. The rehabilitation of disability business, which had given rise to losses from 2011 to 2014, has largely been completed. A new large-volume treaty concluded in the third quarter will not have a full impact on premium volume or the result until 2017.

On the African continent, our South African subsidiary Munich Reinsurance Company of Africa Ltd. posted a decrease in premium volume to €167m (187m), which was exclusively attributable to currency translation. The technical result was negative, since the technical provisions of one treaty had to be adjusted.

Reinsurance – Property-casualty

Key figures

		2016	Prev. year	Change
				%
Gross premiums written	€m	17,826	17,680	0.8
Share of gross premiums written in reinsurance	%	64.1	62.7	
Share of international business in gross premiums written	%	96.8	96.2	
Loss ratio	%	63.3	57.0	
Thereof: Major losses	Percentage points	9.1	6.2	
Expense ratio	%	32.4	32.6	
Combined ratio	%	95.7	89.7	
Technical result	€m	1,859	3,116	-40.4
Investment result	€m	1,589	2,046	-22.3
Operating result	€m	2,284	3,641	-37.3
Consolidated result	€m	2,025	2,915	-30.5

Premium

Premium income in property-casualty reinsurance increased slightly by 0.8% compared with the previous year. Changes in exchange rates had a negative impact on premium development. Approximately 11% of the portfolio is written in euros and 89% in foreign currency, of which 51 percentage points is in US dollars and 13 percentage points in pounds sterling. If exchange rates had remained the same, premium volume would have risen by 3.0% year on year.

The increase in our premium volume was largely attributable to the selective underwriting of attractive new business – for example, in the form of structured large-volume treaties tailored to meet individual client requirements. These business opportunities arose worldwide and in all lines of business, especially in casualty and property reinsurance. In addition, we were able to generate organic growth with important business partners. Our success in generating business is based on our long-term client relationships and our comprehensive expertise, which is highly appreciated by our clients. In keeping with our profit-oriented underwriting policy, we reduced our portfolio in areas in which risk-adequate prices, terms and conditions could no longer be achieved. This mainly concerned marine business, which is particularly subject to pricing pressure in selected areas, and direct industrial business, which is also facing difficult market conditions. Our specialty primary insurer American Modern Insurance Group Inc. (American Modern) decided to stop selling a product that had been offered through the banking channel.

The 2016 renewals took place in a market environment that was nearly unchanged compared with the previous year. There was sufficient reinsurance capacity in all classes of business. Prices therefore remained under pressure, but to a lesser degree than in previous years. Treaty terms and conditions and demand for reinsurance coverage also showed some signs of stabilisation.

Result

The consolidated result in property-casualty reinsurance decreased compared with the previous year. The operating result, which comprises the technical result and investment result, was also down year on year. The expenditure for major losses was up on 2015, and the technical result declined compared with an especially good prior-year figure. Adjusted for commissions, Munich Re's customary review of reserves resulted in a reduction in the claims provisions for prior years of around €900m for the full year, which is equivalent to around 5.5 percentage points of the combined ratio. This positive development related to almost all lines in our portfolio. The safety margin in the reserves remained unchanged year on year.

Overall major-loss expenditure totalled €1,542m (1,046m) after retrocession and before tax, which was above the previous year's level, but nevertheless below expectations. Run-off profits were higher than the reserve strengthening for major losses from previous years.

Aggregate losses from natural catastrophes increased again in 2016, and amounted to €929m (149m). This figure is equivalent to 5.5% (0.9%) of net earned premiums, and below the level to be expected. With a cost to Munich Re of €404m, strong forest fires in the Canadian province of Alberta in May 2016 were by far the biggest loss of the year. In November, an earthquake in New Zealand caused losses totalling around €251m. Matthew, the first Atlantic hurricane in almost ten years to reach category 5 status, i.e. the highest category, cost us €232m. A series of earthquakes on the Japanese island of Kyushu in April impacted the result with about €78m. Further extensive losses (€62m) resulted from the heavy flooding in Louisiana in August.

At €613m, man-made major losses were down on the previous year (€897m) and somewhat below expectations. This figure is equivalent to 3.6% (5.3%) of net earned premiums. Development was marked by a variety of individual events, including fire, explosion, marine and liability losses.

The decline in the investment result is mainly attributable to lower gains on the disposal of equities. In addition, we realised a positive one-off effect from the acquisition of almost all the shares of 13th & F Associates Limited Partnership Columbia Square, Washington, D.C. (13th & F) in the previous year.

Our individual core markets and selected special lines

Based on premium volume, around 40% of our global property-casualty reinsurance business including Risk Solutions is written in North America (including Canada). Around 35% of our premium comes from Europe, of which more than half is generated in the United Kingdom. Further substantial shares are contributed by Asia (about 10%), Australia/New Zealand (approximately 5%) and Latin America (approximately 5%).

In the US market, we wrote additional profitable liability business. The pressure on prices for natural hazards cover in reinsurance persisted. Premium income at The Hartford Steam Boiler Inspection and Insurance Company increased to €993m (968m). We expanded our product range of cover solutions for the Internet of Things (IoT), also by enhancing our know-how through acquisitions. American Modern posted a decline in premium to €1,215m (1,279m). We decided at the beginning of the year to discontinue selling a product through the banking channel. In addition, Munich Reinsurance America, Inc. contributed a premium volume of €2,410m (2,463m).

In Canada, we are represented by the Munich Reinsurance Company of Canada and Temple Insurance Company in the area of non-life business. At €311m (330m), premium volume decreased because a major treaty with a client was discontinued as expected.

European business is dominated by property business and UK motor business. In the United Kingdom, we kept our premium volume stable at €3,266m (3,263m). If the exchange rates had remained unchanged, however, the premium volume would have increased. This increase was mainly attributable to the expansion of our primary insurance activities and to rate increases in motor business.

Our Swiss subsidiary New Reinsurance Company Ltd. (New Re) succeeded in growing its business volume by 32.7% to €733m (552m) in the area of property-casualty. Here, structured and customised reinsurance solutions generated additional premium volume. Traditional reinsurance business remained largely stable.

In adherence to our consistently cycle- and profitability-oriented portfolio management, we reduced our premium volume in Germany to €566m (669m) year on year. The reduction chiefly concerned unprofitable proportional fire business.

In Australia and New Zealand, we successfully defended our strong market position in a challenging environment, with margins remaining adequate and with largely stable premium volume of €935m (942m). We continue to provide substantial capacity for the coverage of natural hazards, in particular windstorm and earthquake.

In Japan, premium income was slightly up on the previous year; it totalled €292m (271m).

In China, we continued to benefit from growth in the original markets, and also increased our premium income in motor business. Overall, our premium climbed to €1,190m (1,171m). Despite far-reaching changes in regulatory requirements and an extremely competitive market environment, we still see considerable medium-term growth potential for our Group in China.

In India, we were able to raise our premium income during the year. Moreover, we established a local branch office here in 2016, and received a licence as a local reinsurer from the Indian regulatory authority. We are now well positioned to successfully participate in the expected growth potential in India.

In the Caribbean and in Latin America, we still provide high capacity for the coverage of natural hazards, in particular windstorm and earthquake. We were able to hold our strong market position, with margins remaining adequate. Premium volume even increased to €770m (663m).

In the specialty lines of business, the market environment is also characterised by intense competition.

At €989m (992m), premium income in agricultural business remained largely stable – despite a decline in commodity prices – owing to the expansion of business in Asia and Norway.

Marine business – including the Munich Re Syndicate – is heavily exposed to pricing pressure in selected segments. For this reason, we gave up some business, and premium volume consequently declined year on year by 27.6% to €553m (764m).

In credit and bond reinsurance, premium income amounted to €529m – roughly the same level as in the previous year (€530m). The pressure on rates in traditional credit business was offset by profitable new business in specialty and niche segments.

In direct industrial business, which we operate in our Corporate Insurance Partner unit, we responded to the currently difficult market environment by deliberately reducing our portfolio and expanding our range of innovative products. Premium income fell to €529m (633m).

Aviation and space saw a moderate fall in premium income to €459m (483m).

The Capital Partners unit offers our clients a broad spectrum of structured, individual reinsurance and capital market solutions. We also use this unit's services for our own purposes in order to buy retrocession cover on the basis of our defined risk strategy. In 2016, we structured a client transaction worth US$ 200m. In addition, Capital Partners placed a catastrophe bond transaction totalling US$ 190m (Queenstreet XII ReE DAC) and a sidecar transaction amounting to US$ 360m (Eden Re II Ltd., Series 2016) in the capital markets for its own purposes.

ERGO

ERGO Group AG (ERGO) announced its Strategy Programme on 1 June 2016. With this Strategy Programme, ERGO is strengthening its role as a leading international primary insurer and pressing ahead with the digital transformation of its business. ERGO will invest a total net figure of €1bn up to 2020, i.e. after tax and policyholder participation. These funds will largely flow into modernising the ERGO Group's information technology. For customers using both online and offline channels, ERGO will develop suitable products that are online, intuitive, and will provide for rapid and efficient administration and short response times – complemented by personal advice either online or locally. In 2017, ERGO will also start up an independent digital insurance company for purely online customers under the brand name "nexible". By consolidating sales organisations and ↗ paring down administration costs, ERGO plans to lower its cost basis by around €540m gross (about €280m net) by 2020. The measures will lead to the loss of around 1,800 jobs in Germany, mostly in the sales organisation. By 2021 at the latest, ERGO expects annual net profits of €600m, thus making a sustainable contribution to the annual result of Munich Re. From 2019, ERGO aims to grow more strongly than the market.

After conducting intense negotiations, the ERGO Board of Management and the co-determination bodies agreed on a reconciliation of interests regarding the sales organisation at the beginning of August 2016. ERGO's new sales structure has been in place since 1 January 2017. Sales units that have previously been run separately will now be merged into a tied-agency sales force, and some decentralised business locations will be closed down.

ERGO Life and Health Germany

Key figures

		2016	Prev. year	Change
				%
Total premium income[1]	€m	10,009	10,322	–3.0
Gross premiums written	€m	9,177	9,426	–2.7
Share of gross premiums written by ERGO	%	57.2	57.0	
Technical result	€m	370	293	26.4
Investment result	€m	4,415	3,841	15.0
Operating result	€m	627	311	101.5
Consolidated result	€m	114	–329	–

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

The decline in overall premium income and gross premiums written is mainly due to lower regular premium volume and reduced income from single-premium business in life insurance.

Result

The technical result generated by the ERGO Life and Health Germany segment in 2016 was up compared with the figures for the previous year. Above all, the investment result also increased, mainly attributable to better interest-rate hedge performance and higher gains on disposals, especially of fixed-interest securities to finance the additional interest reserve. The operating result consequently increased overall. Despite restructuring expenses, the consolidated result improved, mostly because the previous year's figure had been impacted by impairment of goodwill.

Development of premium income and results by segment

In the ERGO Life and Health Germany segment, we report on the ERGO divisions Life Germany, Health Germany and German direct business.

Life Germany

Key figures

	2016	Prev. year	Change
	€m	€m	%
Total premium income[1]	3,735	4,016	–7.0
Gross premiums written	2,988	3,214	–7.0
Technical result	–12	–115	89.5
Operating result	215	6	>1,000.0

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

The downturn in premium volume was due in particular to the decrease in single-premium business. Unearned premiums from 2015 were also lower than the previous year's figure. The strong fall in regular premium income was mainly attributable to the ongoing portfolio reduction, which could not be compensated for by new business. Overall, new business volume in 2016 was down by 5.8% year on year in terms of annual premium equivalent (APE, i.e. regular premium income plus one-tenth of single-premium volume), which is the performance measure customary among investors. This was mainly due to the decrease in single-premium business. There was an increase in regular-premium new business, chiefly due to successful marketing of a stand-alone disability insurance cover launched at the beginning of the year.

New business Life Germany

	2016	Prev. year	Change
	€m	€m	%
Regular premiums	191	189	0.8
Single premiums	511	675	–24.3
Total	**702**	**864**	**–18.8**
Annual premium equivalent[1]	242	257	–5.8

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

The technical result increased compared with the previous year, partly due to a refined methodology. In the past financial year, the investment result totalled €3,064m (2,377m). Profits from our interest-rate hedges and higher gains on disposals contributed to this significant improvement, and were partly responsible for the rise in the operating result.

Health Germany

Key figures

	2016	Prev. year	Change
	€m	€m	%
Total premium income	5,179	5,202	–0.4
Gross premiums written	5,179	5,202	–0.4
Technical result	291	337	–13.7
Operating result	338	233	45.0

In Health Germany, around 91% of premium is derived from health insurance and around 9% from travel insurance.

In supplementary health insurance business, premium income was lower than in the previous year (–4.1%), chiefly owing to the termination of a large-volume treaty. Without this effect, premium income in supplementary health insurance would have increased by 1.1%. Also adjusted for this effect, supplementary insurance not conducted like life insurance grew substantially by 17.2%. In comprehensive health insurance, premium volume was roughly on a par with the same period last year (+0.5%).

The fall in the technical result is partly due to lower income from technical interest. The investment result fell slightly to €1,230m (1,320m), with the negative effects principally deriving from falls in the derivative result from equity hedging and lower regular income. The operating result was positively affected by policyholder participation in one-off non-operating effects.

German direct business

Key figures

	2016	Prev. year	Change
	€m	€m	%
Total premium income[1]	1,094	1,104	–0.9
Gross premiums written	1,009	1,011	–0.2
Technical result	91	71	28.7
Operating result	74	72	3.1

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

Life insurance accounts for around 44% of premium income in this segment. Approximately 42% of the premium income derives from direct health insurance, and around 14% from direct property-casualty insurance

The weakening of premium volume here is mainly due to the decrease in regular premium income from capital products in life insurance and the discontinuation of single-premium annuity business. In addition, the decline was attributable to the termination of a large property treaty. Growth in the health sector could partly compensate for this. In terms of annual premium equivalent, new business volume in life insurance was 2.9% below last year's level.

At 86.7%, the combined ratio for property-casualty business was below last year's (87.8%), and remained at a very good level.

New business direct life Germany

	2016	Prev. year	Change
	€m	€m	%
Regular premiums	29	29	1.1
Single premiums	84	98	–14.5
Total	**113**	**127**	**–11.0**
Annual premium equivalent[1]	37	38	–2.9

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

The technical result in 2016 was higher than in the previous year. The investment result declined at €120m ↗ (143m), one negative contributing factor being diminished regular income. All in all, the operating result increased slightly.

ERGO Property-casualty Germany

Key figures

		2016	Prev. year	Change
				%
Gross premiums written	€m	3,194	3,162	1.0
Share of gross premiums written by ERGO	%	19.9	19.1	
Loss ratio	%	61.9	64.7	
Expense ratio	%	35.1	33.2	
Combined ratio	%	97.0	97.9	
Technical result	€m	139	122	14.3
Investment result	€m	80	187	–57.4
Operating result	€m	128	219	–41.4
Consolidated result	€m	–72	214	–

Premium

Our main classes of business are motor and personal accident insurance, which account for around 21% and 20% of the segment's premium income respectively.

Premium income developed favourably year on year. Premium volume climbed by 1.7% in liability insurance, 1.3% in motor insurance, and 1.5% in legal protection insurance. Fire and property business and personal accident insurance saw a year-on-year decline in premium volume of 3.1% and 2.5% respectively.

Result

The technical result in the ERGO Property-casualty Germany segment rose in 2016, due mainly to lower major-loss expenditure. The investment result was significantly down on the previous year, due mainly to lower gains from disposals of equities. The reduced investment result and restructuring expenses were mainly responsible for the negative consolidated result.

The 2016 combined ratio was 0.9 percentage points below the previous year's figure. Natural catastrophe losses and man-made major losses were below the level of 2015. The expense ratio increased, partly due to additional investments for implementing the Strategy Programme. Paid claims and the change in claims provisions totalling €1,955m (1,981m), along with net operating expenses of €1,108m (1,015m), compared to net earned premiums of €3,158m (3,059m).

ERGO International

Key figures

		2016	Prev. year	Change
				%
Total premium income[1]	€m	4,032	4,382	-8.0
Gross premiums written	€m	3,664	3,947	-7.2
Share of gross premiums written by ERGO	%	22.8	23.9	
Loss ratio	%	59.1	65.3	
Expense ratio	%	39.9	39.4	
Combined ratio	%	99.0	104.7	
Technical result	€m	-132	33	–
Investment result	€m	734	447	64.0
Operating result	€m	251	68	267.6
Consolidated result	€m	-82	-112	27.3

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.

At the end of May 2016, ERGO entered the Thai insurance market for the first time and bought 40% of the shares in Thaisri Insurance. Thailand's property-casualty insurance market is expected to see annual premium growth of 7% by 2020, and is profitable with a net combined ratio of just over 90%. Thaisri Insurance specialises mainly in motor business and property insurance.

On 3 June 2016, ERGO extended its commitment to the Indian market and increased its share in HDFC ERGO to 48.7%. HDFC ERGO also bought 100% of the shares in L&T General Insurance Company Ltd. (LTGI). HDFC ERGO has thus gained access to further sales channels, and now ranks third among private insurance companies in the Indian property insurance market.

On 1 August, ERGO successfully completed the acquisition of the Greek company AGROTIKI Insurance S.A. (ATE Insurance). As a result of this transaction, ERGO has expanded its presence in Greece, and is now the biggest property-casualty insurer in the market. The Greek insurance market offers great potential, even though the country's overall economic situation remains difficult.

In mid-December 2016, our Belgian life insurer announced that it was planning to stop writing new business. Due to a challenging capital market environment, the profitability of Belgian life insurance business has declined considerably in the last few years. Moreover, ERGO is a relatively small player in the Belgian market. In future, ERGO will be focusing on servicing existing clients and increasing efficiency by streamlining its processes. This could possibly involve closing down the sales organisations in Belgium and Luxembourg, and cutting about 200 jobs.

Premium

Approximately 38% of the segment's premium income derives from life insurance, and around 62% from property-casualty insurance. ERGO's biggest markets include Poland (accounting for approximately 29% of premium volume), Austria (about 17%) and Belgium (around 15%).

Overall, ERGO International posted a decline in total premium income and gross premiums written because of a reduction in premium volume in life insurance business. Adjusted to eliminate currency translation effects, gross premiums written in the ERGO International segment would have decreased by 4.2% compared with the same period last year. The most significant negative currency translation effects were seen in Poland, Turkey and the UK.

At €1,530m (1,991m), overall premium income from international life insurance business was less than in the previous year. The marked decrease is due in particular to developments in Poland and Belgium. In addition, the decline was attributable to the deconsolidation of our Italian company as at 30 June 2016. In terms of the annual premium equivalent, new business in international life insurance was down year on year. We posted premium volume of €2,502m (2,392m) in international property-casualty business, representing an increase of 4.6%. The higher premium income mainly resulted from developments in Poland and the Baltic states. The first-time consolidation of the Greek insurer ATE Insurance in the third quarter contributed to this increase with gross premiums written of €46m.

New business Life International

	2016	Prev. year	Change
	€m	€m	%
Regular premiums	130	146	–10.7
Single premiums	526	877	–40.0
Total	**656**	**1,022**	**–35.8**
Annual premium equivalent[1]	183	234	–21.7

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

Result

There was a decline in the technical result in the ERGO International segment. This negative development was significantly influenced by life insurance business. The decline was attributable to the results in Italy, Belgium and Austria and, in Belgium and Austria, due partly to a review of underwriting assumptions involving a downward adjustment of expected future profits in view of low interest rates. There was a year-on-year improvement in the result in property-casualty business. The investment result was significantly better than in the previous year, due for the most part to higher gains on disposals of interest-bearing securities. The operating result and the consolidated result increased overall.

In international property-casualty business, the combined ratio improved year on year, particularly in Turkey, in the UK and in Poland. Paid claims and the change in claims provisions totalling €1,282m (1,373m), along with net operating expenses of €866m (828m), compared to net earned premiums of €2,169m (2,103m).

Munich Health

Key figures

		2016	Prev. year	Change
				%
Gross premiums written	€m	4,990	5,623	–11.3
Share of international business	%	98.7	99.0	
Loss ratio[1]	%	81.8	84.5	
Expense ratio[1]	%	16.7	15.4	
Combined ratio[1]	%	98.5	99.9	
Technical result	€m	92	24	280.8
Investment result	€m	120	118	1.4
Operating result	€m	173	80	116.6
Consolidated result	€m	137	88	54.8

1 Excluding health insurance conducted like life insurance.

Premium

In reinsurance, negative currency translation effects from Canadian and US dollars and the reduction of our share in a large treaty in North America resulted in a decrease in gross premium volume of 16.1% to €3.6bn (4.3bn). Primary insurance saw a slight increase of 5.0% to €1.4bn (1.3bn). In particular, our companies in Belgium and Spain increased their premium income. If exchange rates had remained the same, Munich Health's gross premiums would have decreased year on year by 9.4%.

Result

Despite the fall in the technical interest, the technical result was significantly above the level of the previous year. Improved results in reinsurance derived mainly from high losses in the USA from the previous year that were not repeated due to the introduction of countermeasures. Improved business performance in other regions also allowed for the release of reserves from previous years. There was also an improvement in the result for primary insurance, especially at DKV Belgium and DKV Seguros. The investment result remained at the previous year's level.

The Munich Health combined ratio, which relates only to short-term health business and not to business conducted like life insurance, was down on the previous year. The combined ratio was 99.5% (101.1%) for reinsurance and 94.2% (93.2%) for primary insurance. Business conducted like life insurance accounted for 10.5% (9.0%) of gross premiums written in the year under review.

Financial position

Analysis of our capital structure

Our primary insurance and reinsurance operations have a significant influence on the structure of our balance sheet: as we have consistently geared our Group towards value creation in its core business, investments serve to cover technical provisions (74% of the balance sheet total). Equity (12% 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

	31.12.2016	Prev. year	Change
	€m	€m	%
Issued capital and capital reserve	7,417	7,418	0.0
Retained earnings	14,890	14,110	5.5
Other reserves	6,628	6,032	9.9
Consolidated result attributable to equity holders of Munich Reinsurance Company	2,580	3,107	-17.0
Non-controlling interests	269	298	-9.7
Total	**31,785**	**30,966**	**2.6**

The increase in equity was attributable not only to the consolidated result but also to a rise in the reserve for currency translation adjustments and to higher net unrealised gains, which derived mainly from our fixed-interest securities available for sale. The dividend payment and share buy-back programme had a lowering effect on equity.

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. With a view to making our capital structure transparent, we quantify our debt leverage, which is pleasingly low compared with that of our competitors: it 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

	31.12.2016	Prev. year	Change
	€m	€m	%
Strategic debt[1]	4,601	4,791	-4.0
Group equity	31,785	30,966	2.6
Total	**36,385**	**35,757**	**1.8**
Debt leverage %	12.6	13.4	

1 The main components of our strategic debt are subordinated liabilities, and bonds and notes issued (see pages 142 f. and 151 of the notes to the consolidated financial statements).

Under the supervisory regulations of Solvency II, subordinated liabilities are recognised as own funds provided that they are available at all times to cover losses on a going-concern basis. Munich Re's subordinated liabilities amount to €4,218m. Of this sum, €4,172m meet the requirements under Solvency II for loss absorption capacity and are therefore recognised as own funds. When this is considered in calculating the strategic debt, the latter is reduced to €429m and the debt leverage amounts to only 1.3%.

Technical provisions

Reinsurance business accounts for approximately 32% of technical provisions, around 66% comes from primary insurance and about 2% is from Munich Health. 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 is especially true of 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, the British pound sterling and the Canadian dollar.

Restraints on disposal

Since we are an international (re)insurance group, some of our financial resources are subject to restraints on disposal. Supervisory authorities in some countries, for example, require foreign reinsurers to establish premium and reserve deposits to the benefit of primary insurers, or set up trustee accounts or guarantees with certain financial institutions. At the reporting date, this involved investments with a volume of €9.7bn (9.1bn). In addition, there were contingent liabilities. Information on these can be found on page 165 of the notes to the consolidated financial statements.

Capital position

Through active capital management, we ensure that Munich Re's capital is always maintained at an appropriate level. 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 key measure of Munich Re's capital strength. Further information on this ratio can be found on page 74 of 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 attractive dividends and share buy-backs. In practice, capital repatriation comes up against limits because German accountancy rules force our parent, Munich Reinsurance Company, to maintain the claims equalisation provision in local GAAP accounting at a level that exceeds the economic requirements. This restricts the revenue reserves and profit distribution possibilities. As at 31 December 2016, Munich Reinsurance Company's claims equalisation provision totalled €10.1bn. Additional information can be found under Munich Reinsurance Company (Information reported on the basis of German accountancy rules) on page 87.

Between 2006 and 2016, we returned a total of €22.0bn to our shareholders. In March 2016, we announced a further share buy-back programme of a maximum of €1bn up to the 2017 Annual General Meeting. During the reporting year, we had bought back shares with a total volume of €969m.

Information in accordance with Sections 315 (4) and 289 (4) of the German Commercial Code (HGB) and explanatory report of the Board of Management

Composition of the subscribed capital

As at 31 December 2016, Munich Reinsurance Company's share capital of €587,725,396.48 was divided into 161,053,897 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 or the transfer of shares

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

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 German Stock Corporation Act (AktG), voting rights from the shares concerned are excluded by law. If shareholders are entered under their own name for shares which belong to a third party and exceed at this time the upper limit of 2% of the share capital as stated in the Articles of Association, pursuant to Article 3 (5) of the Articles of Association the shares entered shall not carry any voting rights.

Shareholdings exceeding 10% of the voting rights

Munich Reinsurance Company has not been notified, nor has it otherwise learned, about any direct or indirect shareholdings in the Company that exceeded 10% of the voting rights as at 31 December 2016.

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

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

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

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

- The Annual General Meeting of 27 April 2016 authorised the Company, pursuant to Section 71 (1) no. 8 of the Stock Corporation Act, to buy back shares until 26 April 2021 up to a total amount of 10% of the share capital. The shares acquired, plus other own shares in the possession of the Company or attributable to the Company in accordance with Section 71a ff. 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 Company may buy back shares amounting to a maximum of 5% of the share capital using derivatives. The Board of Management is authorised to use shares thus acquired for all legally permissible purposes, in particular those specified in the authorisation, whilst excluding subscription rights. Among other things, the Board of Management is empowered under Section 71 (1) no. 8 of the Stock Corporation Act to retire the shares without requiring further approval from the Annual General Meeting. By resolution of 16 March 2016, the Board of Management decided to utilise this authorisation to acquire own shares. Around 4.2 million shares had been acquired by 31 December 2016 at a purchase price of ca. €667m.

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

- Under Article 4 (1) of the Articles of Association, the Board of Management is authorised, with the consent of the Supervisory Board, to increase the Company's share capital at any time up to 24 April 2018 by an amount of up to €280m by issuing new shares against cash or non-cash contribution (Authorised Capital 2013). In accordance with the above-mentioned provisions of the Articles of Association, it may exclude subscription rights.

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

The complete text of the aforementioned authorisations 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. Munich Reinsurance Company's Long-Term Incentive Plan also provides for special exercise options in the event of a change of control.

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

	2016	Prev. year	Change
	€m	€m	%
Cash flows from operating activities	3,132	4,327	–27.6
Cash flows from investing activities	–1,284	–1,030	–24.7
Cash flows from financing activities	–2,531	–2,337	–8.3
Cash flows for the financial year	**–683**	**960**	**–**

In the consolidated cash flow statement, the consolidated profit of €2,581m is used as the starting point for determining the cash inflows from operating activities. The consolidated result is also adjusted by €2,783m 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 payments for the acquisition of investments. They exceeded the inflows from the sale and/or maturity of investments by €1,200m.

In 2016, via its subsidiary MR RENT-Investment GmbH, Munich Re acquired 100% of the voting shares in the solar park company Lynt Farm Solar Ltd, and in the windpark Wind Farms Västra. Via its subsidiaries ERGO Austria International AG and ERGO Versicherung AG, Munich Re also acquired 100% of the voting shares in ERGO ASIGURARI. Via ERGO International AG, we also acquired 100% of the voting shares in ATE Insurance. Via its subsidiary Munich American Holding Corporation, Munich Re acquired 100% of the voting shares in the structured entity Financial Reassurance Company 2010, Ltd., which then changed its name to Munich Re Life Insurance Company of Vermont. Via its subsidiary HSB Group, Munich Re acquired 100% of the voting shares in Meshify Inc. In the cash flow statement, we have reduced the purchase prices by the cash held by the companies acquired.

In the 2016 financial year, Munich Re sold ERGO Italia and other companies through ERGO International AG. We have reduced the sales prices by the cash held by the companies sold.

The cash outflows for financing activities stem mainly from the dividend payment in 2016 and the share buy-back programme.

In the year under review, cash – which encompasses cash at banks, cheques and cash in hand – decreased by €683m (including currency effects) to €3,353m overall. There were items pledged as security and other restrictions on title amounting to €10m (23m).

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 most important elements of this are the risk management, compliance, audit and actuarial functions. At Group level, risk management is part of the Integrated Risk Management Division (IRM) and reports to the Chief Risk Officer (Group CRO). In addition to the Group functions, there are risk management units in the fields of business, each headed up by its own CRO.

Risk Governance
Our risk governance ensures that an appropriate risk and control culture is in place by clearly assigning roles and responsibilities for all significant 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 with respect to major decisions.

Defining the risk strategy
The risk strategy, which is derived from the business strategy, defines where, how and to what extent we are prepared to incur risks. The further development of our risk strategy is embedded in the annual planning cycle, and hence in our business planning. It is approved by the Board of Management, and discussed regularly with the Audit Committee of the Supervisory Board as an important element of the Own Risk and Solvency Assessment (ORSA).

We determine our risk strategy by defining risk appetites for the following risk criteria.

- Whole portfolio criteria: They relate to the entire portfolio of risks and are designed to protect our capital and limit the likelihood of an economic loss for the year. Of particular importance is the financial strength criterion. This is based on the capital adequacy ratio for Solvency II, which is the ratio of eligible own funds to the solvency capital requirement. Information on this ratio can be found on page 74. Another important performance criterion we use is the assessment of our financial strength by the main agencies that rate us. Our objective is the second-highest rating category.

- Supplementary criteria: These are used to limit the loss amounts for individual risk types and potential accumulations that could endanger Munich Re's ongoing viability.

- Other criteria: These support our objective of preserving Munich Re's reputation and protecting its future business potential.

These risk appetites are based on the capital and liquidity available and on our earnings target, and they 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 are reconciled with risk management considerations.

Our implementation of risk management at operational level embraces the identification, analysis and assessment of all significant risks, which provide a basis for risk reporting, limits and monitoring.

Risk identification is performed by means of appropriate processes and indicators, which are complemented by expert opinions and assessments by selected, highly experienced managers. Our early identification of risks also covers emerging risks, i.e. those that change or arise as a result of legislative, socio-political, scientific or technological changes, and that may have unidentified or unquantified effects on our portfolio. The degree of uncertainty as to the extent of damage and probability of occurrence is high for these risks.

Risk analysis and assessment are carried out at the highest level in IRM on the basis of a consolidated Group view. Overall, IRM ensures that a quantitative and qualitative assessment of all risks at consolidated Group level is provided, and that it considers possible interactions between risks.

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.

The 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 audited by Group Audit, which carries out audits of various functions in accordance with its audit plan.

Control and monitoring systems

Our internal control system (ICS) is an integrated system for managing operational risks that covers all risk dimensions and areas of the Group. It addresses Group management requirements, while complying with local regulations. For each field of business, the ICS delivers a risk map at process level, thereby systematically linking every step in a process to the significant risks and the controls relating to them. By making our risk situation transparent in this way, we can focus on and react to weaknesses. This enables us to identify operational risks at an early stage, locate control shortcomings immediately and take effective remedial action. Controls performed for the ICS at entity level are based on COSO (Committee of Sponsoring Organizations of the Treadway Commission), a recognised internal control standard in the finance industry. IT-level controls are based on COBIT (Control Objectives for Information and Related Technology), an internationally recognised framework for IT governance.

The identification, management and control of risks arising out of the accounting process is indispensable for the production of reliable annual financial statements at both consolidated and individual-company level. It is essential for all items in the accounts to be correctly recorded and measured appropriately, and for the information provided in the notes and the management report to be complete and correct. Financial accounting and reporting are subject to carefully defined materiality thresholds to ensure that the cost of the internal controls performed is proportionate to the benefits derived. Significance, risk experience and compliance with legal provisions and internal regulations are taken into account in determining the thresholds. Risks significant for financial reporting from a Group perspective are integrated into the ICS in accordance with uniform criteria. The ICS risk map is checked annually by the risk carriers, and updated and amended as necessary. By means of an accounting manual and regular circulation of information on changes required, Munich Re ensures that uniform rules are applied throughout the Group for the treatment, measurement and disclosure of all items in the balance sheet, income statement and other components of the financial statements.

The accounting process is to a large degree dependent on IT systems, which are subject to ongoing controls aimed at protecting against unauthorised access and guaranteeing the effectiveness and stability of the information and communication processes. A central IT solution drawing on general ledgers largely standardised throughout the Group is used to produce the consolidated financial statements. It is based on harmonised basic data, uniform processes and posting rules, and a standard interface for delivery of data to the Group or subgroup. Authorisation procedures regulate access to accounting systems. Group Audit regularly audits data management in the accounting systems to ensure that it is being performed in a proper and orderly manner.

Significant risks

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

Risks depicted in the internal model

Solvency capital requirement – Internal model

We have 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 appetite, 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 statistically exceeded in no more than one year in every 200. 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 estimates. Our historical data covers a long period to take account of our one-year time horizon and to provide a stable and appropriate estimate of our risk parameters. We also take account of the diversification effects we achieve through our broad spread across the different risk categories (underwriting, market, credit and operational risks) and our 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.

Every risk category in reinsurance and at ERGO is shown. In the Munich Health field of business, the life and health risk categories and operational risks are shown, but not market and credit risk, which we cover through our internal risk control in reinsurance. ↗

The table shows the solvency capital requirement for Munich Re and its risk categories as at 31 December 2016.

Solvency capital requirements (SCR)

	Reinsurance		ERGO		Munich Health	
	31.12.2016	Prev. year	31.12.2016	Prev. year	31.12.2016	Prev. year
	€m	€m	€m	€m	€m	€m
Property-casualty	6,688	6,247	381	362	–	–
Life and health	4,306	3,791	1,246	1,263	297	304
Market	5,905	5,810	6,462	4,340	–	–
Credit	2,582	2,672	1,598	1,593	–	–
Operational risk	881	821	799	399	74	64
Other[1]	397	–	197	–	–	–
Subtotal	**20,758**	**19,340**	**10,685**	**7,956**	**371**	**367**
Diversification effect	-7,709	-7,368	-2,444	-2,090	-32	-30
Tax	-2,180	-2,028	-987	-664	-51	-53
Total	**10,869**	**9,944**	**7,254**	**5,202**	**287**	**285**

	Diversification		Group			
	31.12.2016	Prev. year	31.12.2016	Prev. year		Change
	€m	€m	€m	€m	€m	%
Property-casualty	-311	-273	6,759	6,336	423	6.7
Life and health	-650	-612	5,199	4,746	454	9.6
Market	-2,473	-1,415	9,895	8,735	1,160	13.3
Credit	-155	-112	4,026	4,153	-127	-3.1
Operational risk	-363	-244	1,391	1,039	352	33.9
Other[1]	–	–	594	71	523	736.2
Subtotal	–	–	**27,863**	**25,079**	**2,784**	**11.1**
Diversification effect	–	–	-9,992	-9,268	-724	7.8
Tax	–	–	-2,615	-2,336	-279	11.9
Total	**-3,155**	**-1,956**	**15,256**	**13,475**	**1,781**	**13.2**

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

The solvency capital requirement was €1,781m higher than for the previous year. This increase was due mainly to developments in the capital markets, particularly the continuing fall in interest rates and depreciation of the euro as against all important currencies, as well as updates to our model in order to better report negative interest rates.

The diversification effect between the risk categories property-casualty, life and health, market, credit and operational risks increased by €724m and stood at 36%. The solvency capital requirement, which is disclosed under “other”, increased because of a change in allocation, as the solvency capital requirement for investments of this category only needs to be shown without diversification and no longer under market risk. Further information on the changes within individual risk categories can be found in the sections below.

Property-casualty underwriting risk

The property-casualty risk category encompasses the underwriting risks in the property, motor, third-party liability, personal accident, marine, aviation and space, and credit classes of insurance, together with special lines also allocated to property-casualty. Additional information on risks in property-casualty insurance can be found in the notes to the consolidated financial statements on page 159 ff.

Underwriting risk here is defined as the risk of insured losses being higher than our expectations. The premium and reserve risks are significant components of the underwriting risk. The premium risk is the risk of future claims payments relating to insured losses that have not yet occurred being higher than expected. The 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 ensure that the level of reserves always remains high.

We differentiate between losses involving a cost exceeding €10m in one field of business (major losses), losses affecting more than one risk or more than one class of insurance (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 explicit analytical methods (in the reinsurance field of business) and simulation-based approaches (in the ERGO field of business) 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.

By way of example, we limit our exposure by setting limits and budgets not only for natural catastrophe risks but also for potential man-made losses, with our experts developing scenarios for possible natural events, taking into account the scientific factors, occurrence probabilities and potential loss amounts. On the basis of these models, the impact of various events on our portfolio is calculated and represented in mathematical terms in the form of a stochastic model. These models serve as the basis for calculating the SCR. As part of the model validation, we regularly consider the sensitivity of the 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.

Another important measure for controlling underwriting risks is the cession of a portion of our risks to other carriers via external reinsurance or retrocession. Most of our companies have intra-Group and/or external reinsurance and retrocession cover. In addition to traditional retrocession, we use alternative risk transfer for natural catastrophe risks in particular. Under this process, underwriting risks are transferred to the capital markets with the assistance of securitisation vehicles.

Solvency capital requirements (SCR) – Property-casualty

	Reinsurance		ERGO		Diversification	
	31.12.2016	Prev. year	31.12.2016	Prev. year	31.12.2016	Prev. year
	€m	€m	€m	€m	€m	€m
Basic losses	3,601	3,510	330	319	-217	-213
Large and accumulation losses	6,130	5,667	201	207	-153	-146
Subtotal	**9,731**	**9,177**	**531**	**526**	**–**	**–**
Diversification effect	-3,043	-2,930	-149	-164	–	–
Total	**6,688**	**6,247**	**381**	**362**	**-311**	**-273**

	Group			Change
	31.12.2016	Prev. year		
	€m	€m	€m	%
Basic losses	3,714	3,616	98	2.7
Large and accumulation losses	6,178	5,728	450	7.9
Subtotal	**9,893**	**9,344**	**549**	**5.9**
Diversification effect	-3,134	-3,009	-125	4.2
Total	**6,759**	**6,336**	**423**	**6.7**

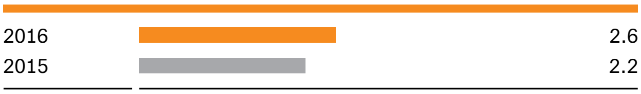
Solvency capital requirement – Property-casualty

The solvency capital requirement for property-casualty rose by €423m, due mainly for large and accumulation losses to the appreciation of the US dollar against the euro, which led to an increase in exposure and therefore also in the risk in euro terms for some major natural hazard scenarios. This risk can also be seen with respect to basic losses.

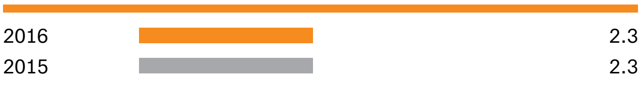
Our internal model treats the accumulation-risk scenarios as independent events. The diagrams show our estimated exposure to the peak scenarios for a return period of 200 years.

Atlantic Hurricane
Aggregate VaR (return period: 200 years)
€bn (before tax), retained

Earthquake Los Angeles
Aggregate VaR (return period: 200 years)
€bn (before tax), retained



Storm Europe
Aggregate VaR (return period: 200 years)
€bn (before tax), retained



Life and health underwriting risk

The underwriting risk is defined as the risk of insured benefits payable in life or health insurance business being higher than expected. Of particular relevance are the biometric risks and the customer behaviour risks, for example 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 the risk of claims in excess of actuarial estimates that could arise on the occurrence of rare but costly events such as pandemics. More information on the risks in life and health insurance can be found in the notes to the consolidated financial statements on page 157 ff.

Life primary insurance products in particular, and a large part of our health primary insurance business, are long-term in nature, and the results they produce are spread over the entire duration of the policies. This can mean that countervailing developments in risk drivers with long-term effects reduce the value of the insurance portfolio (trend risks). The risk drivers mortality and disablement are dominated by the reinsurance field of business, particularly by exposure in North America. By contrast, the biometric longevity risk is mainly to be found in the products marketed by ERGO in Germany, together with typical risks from customer behaviour, such as the lapse risk. To a lesser extent, there are morbidity risks in health insurance, and risks connected with the increase of treatment costs in the ERGO and Munich Health field of business.

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

Our largest short-term risk concentration in the life and health risk category is a serious pandemic, which would expose Munich Re – like other companies in the insurance industry – to risks resulting from a marked increase in mortality and morbidity, and from probable disruptions in the capital markets. We counter this risk by analysing our overall exposure in detail (scenario analysis) and defining appropriate measures to manage the risks, i.e. by specifying limits.

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.

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

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

Solvency capital requirement – Life and health

The solvency capital requirement for life and health increased by €454m as against the previous year, because of increased volume in reinsurance and changes in the capital markets, particularly the appreciation of the US dollar and Canadian dollar as against the euro. There were various compensatory effects in the ERGO field of business: falling euro interest rates have the effect here of increasing solvency capital requirements, while implementation of the new ERGO strategy in particular has the opposite effect.

Market risk

We define market risk as the risk of economic losses resulting from price changes in the capital markets. It includes equity risk, general interest-rate risk, specific interest-rate risk, property-price risk and currency risk. The general interest-rate risk relates to changes in the basic yield curves, whereas the specific interest-rate risk arises out of 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 our underwriting liabilities, especially in life insurance. Due to the long-term interest-rate guarantees given in some cases and the variety of options granted to policyholders in traditional life insurance, the amount of the liabilities can be highly dependent on conditions in the capital markets. Market risks are modelled by means of Monte Carlo simulation of possible future market scenarios. We remeasure our assets and liabilities for every market scenario simulated.

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. Information on derivative financial instruments can be found in the notes to the consolidated financial statements on page 134 f.

Solvency capital requirements (SCR) – Market

	Reinsurance		ERGO		Diversification	
	31.12.2016	Prev. year	31.12.2016	Prev. year	31.12.2016	Prev. year
	€m	€m	€m	€m	€m	€m
Equity risk	3,069	3,021	762	727	-22	-18
General interest-rate risk	1,719	1,894	3,904	2,245	-1,636	-1,072
Specific interest-rate risk	1,485	1,565	4,317	2,763	-804	-795
Property risk	945	929	580	583	-82	-49
Currency risk	3,854	3,340	136	169	-75	-26
Subtotal	**11,072**	**10,749**	**9,699**	**6,487**	**–**	**–**
Diversification effect	-5,167	-4,939	-3,237	-2,147	–	–
Total	**5,905**	**5,810**	**6,462**	**4,340**	**-2,473**	**-1,415**

→	Group			Change
	31.12.2016	Prev. year		
	€m	€m	€m	%
Equity risk	3,809	3,730	79	2.1
General interest-rate risk	3,987	3,068	919	30.0
Specific interest-rate risk	4,998	3,534	1,464	41.4
Property risk	1,443	1,463	-20	-1.4
Currency risk	3,915	3,483	432	12.4
Subtotal	**18,152**	**15,278**	**2,874**	**18.8**
Diversification effect	-8,257	-6,543	-1,714	26.2
Total	**9,895**	**8,735**	**1,160**	**13.3**

Solvency capital requirement – Market

Equity risk

The higher equities position after derivatives compared with the previous year is reflected in a rise in the solvency capital requirement.

Interest-rate risk

The fall in the general and specific interest-rate risk in the reinsurance field of business results from reduced interest-rate sensitivity of equity because of improved duration matching between investments and liabilities or the moderate reduction in credit exposure. The interest-rate risk rose considerably in the ERGO field of business. Most of this increase is due to the continued fall in interest rates in the eurozone. In addition, the improved accounting for negative interest-rate scenarios in the internal risk model contributed to an increase in the interest-rate risk.

In the reinsurance field of business, the fair value of interest-sensitive investments as at 31 December 2016 was €76.9bn (76.9bn). Measured in terms of modified duration, the interest-rate sensitivity of those investments was 5.9 (5.4), while that of the liabilities was 4.6 (4.8). The change in the freely available financial resources in the event of a decrease in interest rates of one basis point would be approximately €2.6m (–2.9m). This means that the interest-rate sensitivity of the liabilities is largely hedged by investments.

In the ERGO field of business, the fair value of interest-sensitive investments as at 31 December 2016 was €130.1bn (130.5bn). The modified duration was 9.3 (8.4) for interest-sensitive investments and 10.6 (9.1) for liabilities. This resulted in exposure to falling interest rates arising mainly out of the long-term options and guarantees in life insurance business. A decrease in interest rates of one basis point would have reduced the freely available financial resources by approximately €22.2m (15.4m).

Property risk

As a consequence of improved diversification of the property portfolio, there has been a slight fall in property risk.

Currency risk

The increase in currency risk results from a moderate increase in existing foreign currency exposures, and was exacerbated by the depreciation of the euro.

Credit risk

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

Munich Re determines credit risks using a portfolio model, which is calibrated over a longer period (at least one full credit cycle), and which takes account of both changes in fair value caused by rating migrations and debtor default. The credit risk arising out of investments (including deposits retained on assumed reinsurance, government bonds and credit default swaps – CDSs) and reinsurers' shares in technical provisions is calculated by individual debtor. We use historical capital-market data to determine the associated migration and default probabilities. The 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. We use our own historical company loss experience to calibrate the credit risk arising out of receivables. For life and health primary insurance business, we also take account of the share of the mitigating effect on the credit risk resulting from policyholders' participation in profits. We also capitalise the credit risk for highly rated government bonds. Information on the ratings of the fixed-interest securities and loans can be found in the notes to the consolidated financial statements on page 134 f.

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, and the utilisation of limits is calculated on the basis of credit-equivalent exposure (CEE). There are also volume limits for securities lending and repurchase transactions. Group-wide rules for collateral management, for example for OTC derivatives and catastrophe bonds issued, enable the associated credit risk to be reduced. Exposure to issuers of interest-bearing securities and CDSs in the financial sector is limited by a financial sector limit at Group level.

In monitoring the country risks, we do not simply rely on the usual ratings, but perform independent analyses of the political, economic and fiscal situation in the most important of the countries issuing paper in which we might potentially invest. Our experts also evaluate and draw conclusions from movements in the market prices of the bonds or derivatives issued by the countries concerned. On this basis, and taking account of the investment requirements of the fields of business in the respective currency areas and countries, limits or actions that are mandatory throughout the Group for investments and the insurance of political risks are approved by the Group Investment Committee.

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

We manage credit default risk in retrocession and external reinsurance with the assistance of limits determined by the Retro Security Committee. Our reserves ceded to reinsurers were assignable to the following rating categories as at 31 December 2016:

Ceded share of technical provisions according to rating

%	31.12.2016	Prev. year
AAA	3.6	2.4
AA	39.6	31.3
A	43.3	54.3
BBB and lower	1.0	1.2
No rating available	12.6	10.8

Further information on the risks arising out of receivables relating to insurance business can be found in the notes to the consolidated financial statements on page 136.

Solvency capital requirement – Credit
The credit risk is €127m lower than in the previous year. This was due mainly to restructuring of the investment portfolio in the reinsurance field of business. There was a reduction in the exposure to government bonds from countries on the periphery of the eurozone and to bank bonds, and in the exposure to credit default swaps. In turn, there was an increase in the exposure to long-term US government bonds.

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.

In recognition of the increasing spread of information technology in society and the economy, we are intensifying our analysis of cyber risks. We monitor developments closely and, with the help of scenarios based on our observations, derive approaches for both risk management and the development of new business opportunities.

We use scenario analyses to quantify operational risks. These analyses are produced or updated annually by experienced staff from the fields of business and affected companies. The results are fed into the modelling of the solvency capital requirement for operational risks and are validated using various sources of information, such as the ICS and internal and external loss data.

Operational risks are managed via our internal control system (ICS), complemented by the results of scenario analyses. In addition, we have a framework to define the rules for a standard Group-wide procedure for, in particular, identifying, assessing and managing security risks for people, information and property. Appropriate measures – up to and including larger projects – are used to correct identified weaknesses or mistakes. The sensitivity in the internal model is regularly checked against the most important input parameters.

Solvency capital requirement – Operational risk
The solvency capital requirement for operational risk increased by €352m as at 31 December 2016, because of an updated assessment of some scenarios, mainly in the area of cyber risk.

Other risk categories

Reputational risk, strategic risk and liquidity risk are identified and analysed with other appropriate qualitative procedures and – where possible – these risks are evaluated and managed.

Reputational risk
Reputational risk is the risk of a loss resulting from damage to the Group's public image (for example with clients, shareholders or other parties). Actual reputational issues arising out of specific incidents are evaluated in the fields of business by Reputational Risk Committees. The Group Compliance Committee deals with compliance risks and concrete reputation issues and risks at Group level, with a view to standardising the way they are handled throughout the Group. In addition, monitoring and limitation of reputational risk is an essential element of operational risk within the scope of our internal control system. Our whistleblower portal also helps to reduce risk in this category.

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. The existing and new potential for success in the Group and the fields of business in which it operates creates strategic risks, which we manage by carrying out risk analyses for significant strategic issues and regularly monitoring the implementation of measures regarded as necessary. The Chief Risk Officer is also involved in operational business planning and the processes for company mergers and acquisitions.

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. We also optimise the availability of liquidity in the Group by means of internal funding. Through stringent requirements regarding the availability of liquidity, which in particular also comply with supervisory rules, we ensure that every unit is able to meet its payment obligations. 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. In addition, the quantitative risk criteria we have introduced ensure that Munich Re will have sufficient liquid funds available even in the event of a loss equal to the solvency capital requirement. Further information on liquidity risks in life and health insurance business and in property-casualty business can be found in the notes to the consolidated financial statements on pages 157 ff. and 159 ff.

Solvency ratio under Solvency II

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

Solvency II ratio

		31.12.2016	Prev. year	Change
Eligible own funds[1]	€m	40,667[2]	40,687	–19
Solvency capital requirement	€m	15,256	13,475	1,781
Solvency II ratio	%	267	302	

1 The capital measures included in the eligible own funds amounted to –€2.3bn in the year under review and mainly concern the dividend payment and share buy-backs.
2 Eligible own funds excluding the application of transitional measures for technical provisions; including the application of transitional measures for technical provisions, the eligible own funds amounted to €48.2bn (Solvency II ratio: 316%).

The Solvency balance sheet prepared in accordance with Solvency II is used to determine the excess of the Group's assets over its liabilities, with both assets and liabilities largely being measured at fair value. This surplus is the key element of eligible own funds. Other components mainly comprise eligible subordinated liabilities, which need to be added to the calculation, and share buy-backs announced but not yet carried out at the reporting date, which must be deducted. Own fund items leading to restrictions in eligibility, such as surplus funds or minority interests in equity, must also be deducted. The dividend planned for the 2016 financial year is still included.

Other risks

Global and regional economic and financial developments

Munich Re has substantial investments in the eurozone. We attach importance to maintaining a correspondingly broad diversification of investments to cover our technical provisions and liabilities in euros. But low interest rates continue to pose major challenges for life insurance companies in the eurozone in particular. The fluctuations in the capital markets give rise to considerable volatility in investments and liabilities. We counter these risks with various risk management measures.

But developments in individual states mean that there are still considerable political risks in the eurozone. As a reaction to the announcement that the UK will leave the EU, the pound has depreciated considerably against both the euro and the US dollar. Uncertainty surrounding Brexit negotiations could have other negative consequences (such as a further depreciation of the pound, recession in the UK, deterioration of the current account of EU countries).

In addition to political imponderables in Europe, current developments in the USA and the situation in emerging economies, international crises such as the situation in the Middle East and Ukraine are cranking up uncertainty levels. We constantly analyse the potential impact that developments of this sort may have on our risk profile.

Across Europe, there is a trend towards increases in corporate taxes from higher tax rates and expansion of the assessment basis, and discussions continue about introducing a financial transaction tax in Europe. Demands for more transparency about global corporate tax burdens and tax activities are also increasing. This could lead to changes being introduced worldwide at the national legislative level which may result in increased tax charges for globally operating companies. Munich Re cannot exclude that higher tax charges might result from these discussions.

Regulatory risks

For years, regulation has been growing in scale and complexity, a fact that requires enhanced efforts and is increasingly and permanently tying up resources at Munich Re. The economic and regulatory perspectives do not tally in many areas, resulting in differing management requirements that may trigger contradictory corporate management signals.

Climate change

Climate change represents one of the greatest long-term risks of change for the insurance industry. Our Corporate Climate Centre analyses and measures this risk with a holistic strategic approach.

Legal risks

As part of the normal course of business, Munich Re (Group) companies are involved in court, regulatory and arbitration proceedings in various countries. The outcome of pending or impending proceedings is neither certain nor predictable. However, we believe that none of these proceedings will have a significant negative effect on the financial position of Munich Re, as none of the risks exceeds a low three-digit-million euro figure.

Summary

In accordance with the prescribed processes, our Board committees explicitly defined the risk appetite for significant risk categories in the year under review, and quantified it with key figures. We determined and documented the risk appetite across the Group hierarchy and communicated it throughout the Group. During the whole of 2016, risk exposures were regularly quantified and compared with the risk appetite. We assess Munich Re's risk situation to be manageable and under control.

Opportunities report

In the age of digitalisation, our strong client focus, global risk management capabilities and industry knowledge put us in a strong position to benefit from continuously evolving markets and changes in client behaviour, whilst we continue to develop customised solutions together with our clients. Unless stated otherwise, the opportunities outlined below generally relate equally to all fields of business.

Business environment

New business avenues will open up for Munich Re if key macroeconomic parameters develop better than expected. Stronger economic growth in the USA or Germany and a more rapid economic recovery in the eurozone or in major emerging markets would have a positive impact on the demand for insurance cover, and trigger higher premium volume in most classes of insurance. Such a development – and a less expansive monetary policy – could also lead to a normalisation of the bond markets and thus to a gradual increase in yields. This would have a negative impact in the short term on our investment result, but would be favourable to our insurance business and bring higher returns in the long run. At the same time, the pressure on our cedants from the current low-interest-rate environment opens up new business opportunities for our reinsurance activities. And there are long-term opportunities for expansion in our primary insurance and reinsurance business. Demand for insurance cover is on the rise, fuelled by an increasing accumulation of values, a heightened need for security, and an expanding middle class around the world. Increasingly complex industrial risks and catch-up potential for natural hazards insurance also offer opportunities for future growth. We are well positioned to support our clients thanks to our competence in developing product solutions and analysing and preventing risks.

Innovation and digitalisation

Markets increasingly shaped by digitalisation and changes in client behaviour call for flexibility in terms of coverage and solutions. The requisite shift towards new, innovative products, services and processes is supported by our cooperation with young and creative start-ups.

We have experts present in major start-up hubs such as Silicon Valley, London, Beijing, Berlin and Tel Aviv. By partnering with various accelerators in London and Berlin such as "Axel Springer Plug and Play" and "startupbootcamp", we are engaging in an active exchange with many InsurTech companies and research institutions. These partnerships give rise to numerous ideas for cooperating and doing business, which allow us to expand our business model beyond the insurance value chain and open up growth opportunities in the digital world.

As one of the world's leading reinsurers, we support and partner our cedants in shaping the digital transformation. For example, we offer various products for automated underwriting and policy issuance. Small and medium-sized insurers, in particular, appreciate being able to integrate life and disability insurance covers into their own product offering using our white-label solution. We have made substantial investments in the last few years to create a state-of-the-art data infrastructure and advanced analytical tools, with the aim of using big data analytics even more systematically for our own business and making them available to our clients within the limits prescribed by data protection laws. We access a wide variety of data throughout the world and combine it with our risk management capabilities and industry knowledge. Building on the experience of our US subsidiary The Hartford Steam Boiler Inspection and Insurance Company (HSB) in the field of sensor technology, we are developing innovative insurance solutions for the Internet of Things together with our industrial clients. Our newly established Digital Partners unit is working together with start-ups and digital companies to develop innovative solutions. Our global presence and ability to create practicable IT tools and assume almost any type of risk are what sets us apart from the bulk of our competitors in a dynamically growing market.

Customers are increasingly purchasing insurance cover in parallel via traditional and digital channels. The demands of our customers are rising in terms of contact options, smooth transitions between channels, and short response times. We intend to continue to utilise the resulting opportunities rapidly and systematically by enhancing the integration of products and distribution channels, and expanding direct sales in all lines of primary insurance. In doing so, we rely on our existing capabilities (such as at ERGO Direkt) and benefit from sharing knowledge across the Group. We are using innovative client approaches such as our fully digital insurer "nexible", which will be launched in 2017, to engage tech-savvy customers. In the medium term, we are striving for the highest possible level of automation across all processing stages, alongside improvements in process quality, efficiency and safety along the whole value chain, and with new digital customer interfaces.

It is our aim to utilise the constantly evolving digital opportunities to expand the limits of insurability for health risks. Digitalisation, data analysis and data management play a major part in enhancing our service concepts in reinsurance, and in expanding our business. For the analysis of health risks, for example, we provide our cedants with modern solutions and tools for standardised medical risk assessment. In primary insurance, we aim to tap into new business potential through innovative products which are more closely tailored to fit customers' individual needs. Wearable devices are just one way of gaining a better understanding of our customers and their habits. Our aim is to strengthen customer ties even further and make our spectrum of services more comprehensive by offering digital solutions. New products using digital monitoring technology can be useful in preventing chronic diseases or monitoring patients with certain risk factors, helping to optimally adapt ongoing treatment methods to individual patients' needs, and to identify acute deteriorations in a person's health at an early stage. In developing and emerging countries, mobile apps on smartphones can help bridge existing gaps in healthcare infrastructure. They provide access to – and a method of paying for – medical care, often paving the way for setting up basic healthcare systems. Overall, we expect customers' needs and expectations to undergo a fundamental change away from pure cost coverage for illness towards health maintenance and prevention.

Social and economic trends

Growth of emerging markets

The positive economic dynamics and low levels of insurance penetration in many developing and emerging markets provide opportunities for profitably expanding and further diversifying our business portfolio. In growth markets such as Latin America, the Middle East and Asia in particular, we operate as one of the leading reinsurers and also increasingly participate in primary insurance activities. As an example, in India we have strengthened our presence and business activities in reinsurance in Mumbai. In addition, niche and specialty insurers that are part of our Risk Solutions unit, such as HSB, Corporate Insurance Partner, Munich Re Syndicate and American Modern Insurance Group Inc. (American Modern), are also expected to generate significant, sustained growth beyond the reinsurance field of business, thanks to international innovation networks and extensive expertise in product development. ERGO, our primary insurer, will continue to focus its activities on growth markets whilst looking into the possibility of also entering new markets as an additional source of growth.

Ageing population

In the present economic environment, the population dynamics and a growing demand for old-age provision present challenges and opportunities for life insurance and reinsurance. As a primary insurer, we are addressing the rising demand for private provision products in an environment characterised by volatile capital markets and sustained low interest rates. As a reinsurer, we are a competent partner for life primary insurance companies thanks to our tailored range of asset protection solutions, and we successfully develop integrated reinsurance and financial solutions for life insurers in cooperation with our asset manager, MEAG. We also see growth potential in the coverage of longevity risk, although we are adopting a very prudent and selective approach here, given the difficulties involved in robust trend estimates. Rising life expectancy combined with population growth, medical progress and the growing importance of prevention and disease management programmes provide us with far-reaching opportunities as a global health insurer, reinsurer and service provider to address a broad range of diverse customer and client needs, and expand our business.

Climate change and natural catastrophes

We expect climate change to lead to an increase in weather-related natural catastrophes in the long term, with the impact from weather extremes such as floods or seasonal water shortages varying from one region to another. Our risk-management competences and highly developed risk models allow us to better assess these risks and to develop new solutions for our primary insurance and reinsurance clients. One example is crop failure insurance based on public-private partnerships, where demand is growing strongly as the challenges of feeding a growing world population and the consequences of climate change are increasing farmers' need to protect themselves against financial risks.

Regulatory environment

Given the ever more stringent regulatory requirements, many insurers face the significant challenge of sustainably managing their capital relief and optimisation programmes and diversifying as best they can. Thanks to our strong capital base, innovative strength and professional expertise, we are well placed to be a long-term strategic partner for our reinsurance clients, with a wide range of products and services from all-round consultancy to tailor-made reinsurance and capital market solutions. In life and health primary insurance, changes in the legal environment also play an important role. Regulatory intervention could open up additional opportunities for our health insurer, DKV – for example, in further expanding our strong position in supplementary long-term care and health insurance.

Expanding the limits of insurability

We are constantly working together with our clients on pushing back the limits of insurability in various ways. For instance, our experts have been working for many years on cyber risks and enhanced cover options. Apart from data loss and misuse, direct property damage and business interruption, we are now also offering coverage solutions for product liability risks and reputational damage caused by faulty product software. The next evolutionary level will be covers for breach of industrial property rights and business secrets. In addition, there will be insurance for other sensitive data exposed to malfunctioning software or cyber attacks, and epidemic risk covers for the private and public sectors.

Another example of product innovation is the new renewable energy insurance product line developed by our subsidiary HSB. The cover provides protection for developers, operators and investors of projects in the fields of wind energy, solar technology, photovoltaics, biofuels, biomass, water power and geothermal systems.

In the area of natural hazards and climate change, we are a sought-after partner for developing solutions aimed at increasing resilience at community, state and regional level. Examples include our involvement in the development of, and participation in, state-backed pool solutions for flood and terrorism risks in the UK and for drought risks in East Africa, or our role as the World Bank's partner in the global Disaster Risk Financing and Insurance Program in the Pacific region.

Prospects

Our predictions for the forthcoming development of our Group are based on planning figures, forecasts and expectations. Consequently, the following outlook merely reflects our imperfect assumptions and subjective views. It follows that we do not accept any responsibility or liability in the event that they are not realised in part or in full. It is not only the obvious fluctuations in the incidence of major losses that make an accurate forecast of IFRS results impossible. The pronounced volatility of the capital markets and exchange rates, as well as the special features of IFRS accounting, also make this difficult. Thus, there may be significant fluctuations in the investment result, currency result and consolidated result, despite the fact that our assets are geared to the characteristics of our liabilities.

Comparison of the prospects for 2016 with the result achieved

Munich Re (Group)

Comparison of prospects for Munich Re (Group) for 2016 with results achieved

		Target 2016	Result 2016
Gross premiums written	€bn	47–49	48.9
Technical result life reinsurance	€m	400	487
Combined ratio property-casualty reinsurance	%	98	95.7
Combined ratio ERGO Property-casualty Germany	%	95	97.0
Combined ratio ERGO Property-casualty International	%	99	99.0
Combined ratio Munich Health	%	99	98.5
Return on investment[1]	%	around 3	3.2
RORAC	%	15	10.9
Consolidated result	€bn	2.3–2.8	2.6

1 Excluding insurance-related investments.

Despite reduced shares in large-volume treaties, the sale of ERGO Italia and negative currency translation effects, gross premiums were in the upper range of our target corridor at €48.9bn.

At the beginning of the year, we had forecast a result of €2.3bn to €2.8bn for the 2016 financial year.

Initially, expenditure for the implementation of ERGO's Strategy Programme and strains owing to capital market volatility in the first quarter made it necessary to reduce the result target to €2.3bn. Good development in both subsequent quarters caused us to restore the predicted consolidated result to "well over €2.3bn". In spite of high major-loss expenditure in the fourth quarter, we achieved this, posting €2.6bn and thus returning to the original result corridor forecast.

Our long-term objective of a 15% return on our risk-adjusted capital (RORAC) after tax across the cycle of the insurance and interest-rate markets is difficult to achieve in the ongoing environment of very low interest rates on low-risk investments. For the 2016 financial year, we generated RORAC of 10.9%; the return on total IFRS capital (return on equity, ROE) was 8.1%.

The Group's investment result (excluding insurance-related investments) remained nearly constant at €7.6bn. Regular investment income declined, not least because of yield attrition. Gains on the disposal of government bonds, covered bonds and equities more than offset losses from hedging derivatives and impairment losses. Considering the situation in the capital markets, this investment result represents a relatively high annualised return of 3.2% in relation to the average fair value of the portfolio. We thus exceeded our originally anticipated return on investment of "around 3%".

Economic earnings stood at €2.3bn. We thus met our original objective of achieving a result in the range of €2.3–2.8bn.

Reinsurance

In the 2016 financial year, the reinsurance field of business generated gross premiums of €27.8bn – a figure in the upper range of our target corridor of €26–28bn. Gross premiums written in life reinsurance totalled €10.0bn – despite reduced shares in large-volume treaties and negative currency translation effects – thus equally coming in above expectations, which had been in the

€9–10bn range. In property-casualty reinsurance, we had forecast gross premiums written of €17–18bn. We achieved this target and posted €17.8bn, notwithstanding negative currency translation effects.

At €487m, the technical result in life reinsurance was well above our expectation of €400m. The very pleasing result benefited from positive reserving effects, especially in the USA.

A combined ratio of 95.7% in property-casualty reinsurance presented a significant improvement on the initially envisaged ratio of around 98%. Since fewer major losses than expected occurred in the first months of the year, we reduced our forecast for the combined ratio to 95%. Above all, we did not quite meet the adjusted combined ratio targeted due to higher-than-expected expenditure for major natural catastrophe losses in the fourth quarter. A contrary effect derived from the release of provisions for basic losses in prior years. For the financial year 2016, we released loss reserves of around €1.1bn.

At €2.5bn, the consolidated result for 2016 in the reinsurance field of business surpassed our original expectations of €1.9–2.4bn.

ERGO

Overall premium income in the ERGO field of business amounted to €17.2bn, and was in the lower range of our €17–18bn target corridor for 2016. By contrast, gross premiums written came to €16.0bn, at the upper end of our projected range of €15.5–16bn.

ERGO Life and Health Germany posted total premium income of €10.0bn; our outlook had been only slightly higher at "just over €10bn". At €9.2bn, gross premiums written were within the €9–9.5bn range envisaged. For the Life Germany segment, we had forecast overall premium volume of €3.5–4bn for the 2016 financial year, and at €3.7bn we achieved this target. We had aimed for a slight increase in gross premiums to €5–5.5bn for the Health Germany segment, and at €5.2bn we fell within our target corridor here.

In the segment Property-casualty Germany, gross premiums written of somewhat over €3bn had been our goal for the 2016 financial year. At €3.2bn, we surpassed this objective. Our forecast at the start of the year for the combined ratio in property-casualty business in Germany had been around 95% – provided major losses remained within normal bounds. Owing to the investments made in the ERGO Strategy Programme, we had increased the combined ratio predicted for the 2016 financial year to 98%. At 97.0%, we were well under the adjusted projection.

ERGO International posted gross premiums written of €3.7bn. At the beginning of the year, our expectation had been between €3 and €3.5bn. We had been expecting overall premium income for the financial year of €3.5–4bn; at €4.0bn, the actual figure achieved was in the upper range of our target corridor. The combined ratio of 99% was in line with our original projection.

At the beginning of the year, we had aimed for a result of €250–350m for the ERGO field of business. With a consolidated result of –€40m, ERGO fell well short of our original expectations. In the first quarter, we had already anticipated expenditures for the implementation of the ERGO Strategy Programme that made it appear unlikely that ERGO would post a profit in 2016.

Munich Health

At €5.0bn, gross premiums written were within our envisaged range of just under €5bn. At 98.5%, the combined ratio slightly bettered our target of around 99%, and Munich Health's consolidated result totalled €137m, meaning that we significantly surpassed our original target profit in the range of €50–100m.

Outlook for 2017

The Munich Health field of business was integrated into the reinsurance and ERGO fields of business on 1 February 2017. The reinsurance part of Munich Health was merged with life reinsurance, and the health primary insurance part was transferred to ERGO International. As a consequence of this reorganisation, the life reinsurance segment was renamed Life and Health Reinsurance. The forecasts for 2017 shown in the table take account of the changes in Group structure. In comparing the prospects for 2017 with the figures for the 2016 financial year, the data for 2016 was aggregated in line with the new segmentation.

Outlook for Munich Re (Group)

		2017
Gross premiums written	€bn	48–50
Technical result life and health reinsurance[1]	€m	at least 450
Combined ratio property-casualty reinsurance	%	97
Combined ratio ERGO Property-casualty Germany	%	99
Combined ratio ERGO Property-casualty International	%	98
Return on investment[2]	%	around 3
RORAC	%	15
Consolidated result	€bn	2.0–2.4

1 Including the result from reinsurance treaties recognised in the non-technical result owing to insufficient risk transfer.
2 Excluding insurance-related investments.

Reinsurance

Gross premium in reinsurance as a whole should be in the range of €31–33bn overall in 2017, i.e. below last year's figure, although currency translation effects could potentially have a considerable impact on this estimate. We project that the consolidated result for 2017 in reinsurance will total between €1.8bn and €2.2bn. Compared with the result in 2016, this would be a reduction by as much as €0.7bn, attributable over the rest of the year to normal major-loss expenditure, the reduction in prices in property-casualty reinsurance, and the pressure on our investment income owing to continuing low market interest rates. In addition, in 2016 we benefited from positive currency translation effects that were not included in our forecast for 2017.

For 2017, we expect gross premiums written in life and health reinsurance to be in the region of €13–14bn. The technical result plus the result from reinsurance treaties without sufficient risk transfer is expected to amount to at least €450m, thus remaining below last year's figure. The result from reinsurance treaties without sufficient risk transfer is recognised under "other operating result" and thus forms part of the non-technical result.

We anticipate that gross premiums written in property-casualty reinsurance in 2017 will be in the range of €17.5–18.5bn, which is roughly at the same level as last year. Taking into account the low major-loss expenditure in the first two months of 2017, we foresee a combined ratio of around 97% of net earned premiums. We are expecting reserve releases for claims from prior years in the order of six percentage points in 2016. The increase of more than one percentage point on the combined ratio achieved in 2016 is mainly due to the fact that 2016 saw randomly fewer major losses than predicted. For 2017, before the start of the year we anticipated major losses in the order of €2bn, which corresponds to 12% of net earned premium.

Also, we are still seeing slight pressure on prices, albeit with a declining trend: the renewal negotiations at 1 January 2017 were again marked by an oversupply of reinsurance capacity and good capitalisation of most market players. In January, treaties with a volume of just under €9bn – about half of our treaty business in property-casualty reinsurance – were up for renewal. The premium volume generated by renewed business fell by 5% to €8.5bn. Here, we were able to partially offset price and cycle-management-related decreases in business volume by writing attractive new business (again including customised solutions for individual primary insurers).

On balance, we had to accept a slight decline of 0.5% in the price level for the renewed portfolio as a whole. On an international scale, price reductions were seen mainly in natural catastrophe business – with the downward momentum slowing in North America – and in marine and aviation business. By contrast, the price level in liability remained stable, while that in credit and bond business also declined marginally. The fact that the price erosion for Munich Re was comparatively moderate underscores the importance of our consistently profit-oriented underwriting policy, and recognises the importance that individual clients are increasingly attaching to stable reinsurance relationships. Munich Re's comprehensive service and financial strength are valued more highly than an ever lower price.

The renewals at 1 April 2017 (mainly Japan) and 1 July 2017 (parts of the portfolio in the USA, Australia and Latin America) will involve the renegotiation of a premium volume of around €4bn in reinsurance treaty business. Munich Re is proceeding on the assumption that the market environment will not change significantly in these renewal rounds, unless extraordinary loss events occur or there are other major market upheavals.

ERGO

Total premium income in 2017 in the ERGO field of business should be in the range of €18–19bn, with gross premiums written of €17–17.5bn, and therefore at levels comparable to last year. We project a consolidated result for 2017 of €150–200m for the ERGO field of business, much better than the low 2016 result, which was mainly caused by expenditure on the Strategy Programme.

In the Life and Health Germany segment, our total premium income should amount to slightly less than €10bn, and gross premiums written are expected to be in the range of €9bn.

The economic market environment remains challenging for German life business. For 2017, we anticipate a decline in single-premium volume and a decline in regular-premium new business. We expect overall premium volume in the Life Germany segment to decrease to around €3.5bn, partly owing to the shrinking portfolio, with gross premiums written in the range of €2.5–3bn.

In our Health Germany segment, we anticipate that gross premiums written will roughly be at the previous year's level of €5–5.5bn. We aim to achieve our premium volume targets by designing new products in long-term care insurance and supplementary insurance, and by making improvements in comprehensive insurance.

Gross premiums written for direct business in Germany in 2017 should remain at the previous year's level of around €1bn. Decreases in life insurance and in property-casualty business will probably be largely offset by renewed growth in health insurance in the ongoing year .

Gross premiums written in the segment Property-casualty Germany should be somewhat over €3bn. We also intend to further expand personal lines business, which is marked by a highly competitive environment, and to strengthen our market position in commercial and industrial insurance lines. The combined ratio in property-casualty business in Germany should be around 99%, provided major losses remain within normal bounds.

We aim to achieve gross premiums written of just under €5bn for the ERGO International segment in 2017, and generate overall premium volume of about €5.5bn, with uncertainty concerning the demand for single-premium business in life insurance. In health business, we project a slight rise in premium. We should see premium income at around the same level as last year in property-casualty business. Contingent upon major losses being within normal bounds, we are aiming for a combined ratio of around 98%.

Munich Re (Group)

It is our expectation that the Group's gross premiums written for 2017 will be in the range of €48–50bn; the median value is roughly at the previous year's level. Over the long term, we want to grow profitably with innovative business.

We are adhering to our objective of a 15% return on our risk-adjusted capital (RORAC) after tax across the cycle of the insurance and interest-rate markets. However, this target will be difficult to achieve in the current environment of low interest rates on low-risk investments.

For 2017, we expect the economic earnings to be in the same range as the IFRS result forecast. Our projection is based on the assumption of stable capital markets and unchanged modelling parameters, and a normal major-loss incidence over the rest of the year. While economic earnings for 2016 were adversely affected above all by the ERGO Strategy Programme, we are anticipating that this will have less of an impact in 2017. Further information on our economic earnings management tool can be found on page 46.

Provided that major-loss experience from now onwards is in line with expectations, our assumption for 2017 is that Munich Re will post a technical result that is lower than last year at €2.6–2.8bn.

For our investments, we expect interest-rate levels to remain low in 2017, and hence to generate lower regular income from reinvestment of fixed-interest securities and loans. As in the previous year, we want to incrementally increase our widely diversified investments and investment commitments in infrastructure and property. We also intend to only minimally change our moderate equity-backing ratio of 6.1%, so that write-down risks will continue to be limited. Regular income from our investments should come to 2.7%, or at least 0.1 percentage points lower than last year. Overall, we expect the investment result to be lower than last year at some €7bn, equivalent to an annual return on investment of around 3%.

The consolidated profit is likely to fall short of the good result in 2016, because the decline in reinsurance is larger than the increase in primary insurance. Added to this, there is exceptionally high political and macroeconomic uncertainty overall, in all markets relevant to us. Nevertheless, we still envisage a consolidated result for 2017 of €2.0–2.4bn. The effective tax rate should equal that of 2016 and reach 20–25%, which is the generally expected rate for our Group. This profit guidance is subject to claims experience with regard to major losses being within normal bounds, to claims provisions remaining unchanged and to our income statement not being impacted by severe currency or capital market movements, significant changes in fiscal parameters, special restructuring expenses, or other special factors.

In the period from June 2016 to the end of February 2017, we bought back shares with a value of €898m; another €102m are to be used for share buy-backs before the Annual General Meeting in April 2017. We are using this measure to return unneeded capital to shareholders. Despite the buy-backs, our good capital position will allow us to continue paying attractive dividends and selectively utilising opportunities for profitable growth. Subject to approval by the Annual General Meeting, the dividend will rise by 35 cents to €8.60 per share. Altogether, this would mean a total payout of €1.3bn.

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

For the 2016 financial year, Munich Re again utilised the option of publishing a combined management report in accordance with Section 315 (3) in conjunction with Section 298 (2) of the German Commercial Code (HGB). Supplementary to our Munich Re (Group) reporting, this section provides details on the performance of Munich Reinsurance Company.

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

Market environment and major factors of influence

The macroeconomic and industry environment of Munich Reinsurance Company essentially corresponds to that of the Group. Further information on this can be found on page 45.

Business performance

In the 2016 financial year, Munich Reinsurance Company's business performance was good overall. Major-loss expenditure was higher than in the previous year, but was nevertheless again below the expected range. Moreover, the release of loss reserves for prior accident years, which we were able to make following a review of our reserving position, made a positive contribution to the technical result before claims equalisation provision.

In the past financial years, the composition of the accounting result of Munich Reinsurance Company has developed as follows:

Condensed income statement for Munich Reinsurance Company

	2016	Prev. year	Change
	€m	€m	%
Earned premiums for own account	20,976	21,172	-0.9
Interest on technical provisions for own account	418	448	-6.7
Other underwriting income for own account	5	5	0
Claims incurred for own account	-14,795	-14,086	-5.0
Change in other technical provisions for own account	-147	-600	75.5
Expenses for premium refunds for own account	-3	-4	25.0
Operating expenses for own account	-5,851	-5,748	-1.8
Other underwriting expenses for own account	-8	8	–
Subtotal	**596**	**1,194**	**-50.1**
Change in claims equalisation provision and similar provisions	-391	-677	42.2
Underwriting result for own account	**205**	**517**	**-60.3**
Investment income	5,829	5,719	1.9
Investment expenses	-1,922	-3,390	43.3
Interest income on technical provisions	-452	-506	10.7
Other income	996	415	140.0
Other expenses	-585	-879	33.4
Non-technical result	**3,866**	**1,359**	**184.5**
Operating result before tax	**4,071**	**1,876**	**117.0**
Taxes on income and profit, and other taxes	-659	702	–
Profit for the year	**3,411**	**2,578**	**32.3**
Profit brought forward from previous year	48	47	2.1
Transfers from other revenue reserves	0	0	0
Appropriations to revenue reserves	-1,706	-1,249	-36.6
Net retained profits	**1,754**	**1,376**	**27.5**

Technical result

In the financial year 2016, Munich Reinsurance Company's gross premium income totalled €23,527m (24,234m), a year-on-year decrease of 2.9%, mainly owing to changes in the value of the euro as against other currencies.

Gross premium volume in life reinsurance was lower than in the previous year. Gross premiums written were down slightly by 1.1% to €7,930m (8,021m). In health reinsurance, we posted premium totalling €2,939m (3,567m), which represents a decline of 17.6%. A large part of the fall in premium volume was again mainly attributable to a reduction of our share in a particularly large-volume treaty in 2016, and to negative currency translation effects. If exchange rates had remained unchanged, our premium income would have increased by 2.1% in life reinsurance and decreased by 14.4% in health reinsurance.

In property-casualty reinsurance, we posted a marginal increase in premium income of 0.1% to €12,659m (12,646m) in 2016. Negative currency translation effects were largely offset by the selective underwriting of attractive new business – for example, in the form of structured large-volume treaties tailored to meet individual client requirements. In addition, we were able to realise organic growth with important business partners. Our success in generating business is based on our long-term client relationships and our comprehensive expertise, which is highly appreciated by our clients. In keeping with our profit-oriented underwriting policy, we reduced our portfolio in areas in which risk-adequate prices, terms and conditions could no longer be achieved. If currency exchange rates had remained unchanged, premium volume would have increased by 2.8%. Renewal negotiations for reinsurance treaties continued to take place under market conditions largely unchanged from the previous year, and were again characterised by an oversupply of reinsurance capacity and good capitalisation of most market players. Prices therefore remained under pressure, but to a lesser degree than in previous years. Treaty terms and conditions and demand for reinsurance coverage also showed trends towards stabilisation.

Our technical result before claims equalisation provisions amounted to €596m in the 2016 financial year, compared with €1,194m in the previous year. This decline was mainly attributable to higher major-loss expenditure. A customary review of provisions for the full year also resulted in a reduction in the provisions for claims from prior years, albeit at a lower level than in 2015. Over the years, the safety margin in the provisions has remained unchanged at a high level, as Munich Re has adhered to its careful approach to determining and adjusting loss provisions. Major-loss expenditure totalling €1,249m (903m) after retrocession and before tax was higher than in the previous year, but nevertheless remained below expectations. As in the previous year, 2016 was marked by a large number of major losses, but there were no exceptional individual events.

At €702m, aggregate losses from natural catastrophes were significantly higher than in the previous year (€93m), accounting for 5.0 (0.6) percentage points of net earned premiums.

In property-casualty reinsurance, man-made losses totalled €496m (771m), equivalent to 3.6 (5.4) percentage points of net earned premiums.

The combined ratio (excluding life business), which reflects the relation of claims and costs to net earned premiums, came to 96.9% (91.2%). This development is mainly attributable to the above effects.

Performance of the classes of business

Life

		2016	Prev. year	Change
				%
Gross premiums written	€m	7,930	8,021	-1.1
Underwriting result before claims equalisation provision and similar provisions	€m	164	-59	–

In life reinsurance, large-volume treaties have a significant impact on the premium development of our business. One of these treaties was renewed last year, but only at a reduced volume. Negative currency translation effects compounded this trend. The prolonged low-interest-rate phase and sluggish economies in many of our key markets had some impact on our clients' business and curbed demand for reinsurance. By contrast, in Europe, Asia and the USA our new business again developed very positively. The conclusion of a number of large new treaties will not be fully reflected in premium income until 2017.

The technical result showed a notable improvement on the previous year, and thus exceeded our expectations. Claims experience was satisfactory – despite high expenditure for single mortality claims at the beginning of the year. The result also benefited overall from a number of one-off and reserving effects. Geographically speaking, Canada and the European markets were the main contributors in this gratifying development, but Asia also again delivered a solid share to the overall result. Business in the USA and Australia largely developed in line with our expectations.

Health

		2016	Prev. year	Change
				%
Gross premiums written	€m	2,939	3,567	–17.6
Combined ratio	%	100.4	100.2	
Underwriting result before claims equalisation provision and similar provisions	€m	–10	–8	–25.0

In the year under review, we posted significantly reduced premium income in health reinsurance. This was chiefly attributable to a large-volume treaty that was renewed at a reduced volume in 2016, and to negative currency translation effects. The result was down slightly compared with the previous year.

Personal accident

		2016	Prev. year	Change
				%
Gross premiums written	€m	198	183	8.2
Combined ratio	%	31.5	72.3	
Underwriting result before claims equalisation provision and similar provisions	€m	120	42	185.7

In personal accident reinsurance, the premium level was up slightly in the year under review. The result before claims equalisation provision improved appreciably owing to lower claims expenditure than in the previous year.

Third-party liability

		2016	Prev. year	Change
				%
Gross premiums written	€m	1,887	1,974	–4.4
Combined ratio	%	114.6	110.5	
Underwriting result before claims equalisation provision and similar provisions	€m	–256	–190	–34.7

In liability business, premium volume fell slightly in the 2016 financial year. An increase in the loss ratio caused the technical result before claims equalisation provision to deteriorate substantially.

Motor

		2016	Prev. year	Change
				%
Gross premiums written	€m	3,082	3,130	–1.5
Combined ratio	%	100.0	97.4	
Underwriting result before claims equalisation provision and similar provisions	€m	–2	62	–

Motor reinsurance showed a marginal reduction in premium volume owing to negative currency translation effects in the 2016 financial year. After the profit generated in the previous year, the technical result before claims equalisation provision fell into negative territory in the year under review, mainly on account of reduced reserve releases for claims from prior accident years.

Marine

		2016	Prev. year	Change
				%
Gross premiums written	€m	392	471	–16.8
Combined ratio	%	111.5	65.5	
Underwriting result before claims equalisation provision and similar provisions	€m	–40	143	–

In marine reinsurance, the premium level was down compared with the previous year. We reduced our portfolio, as risk-commensurate prices, terms and conditions could no longer be achieved in various areas. The technical result before claims equalisation provision deteriorated significantly. After the positive result posted in the previous year, the technical result was negative in the year under review, mainly owing to higher major-loss expenditure and reduced releases of claims reserves compared with the previous year.

Aviation

		2016	Prev. year	Change
				%
Gross premiums written	€m	443	454	-2.4
Combined ratio	%	75.3	75.9	
Underwriting result before claims equalisation provision and similar provisions	€m	111	106	4.7

Premium income in aviation reinsurance, which comprises the aviation and space classes, remained more or less at the same level as in 2015. The result in aviation reinsurance was up slightly on the previous year, chiefly because of lower major-loss expenditure.

Fire

		2016	Prev. year	Change
				%
Gross premiums written	€m	3,551	3,579	-0.8
Combined ratio	%	83.7	66.4	
Underwriting result before claims equalisation provision and similar provisions	€m	497	1,012	-50.9

The marginal decline in premium income in fire reinsurance was largely attributable to negative foreign exchange effects. We posted a gratifying profit before claims equalisation provision in the 2016 financial year, although the figure was significantly lower than in the previous year. Much higher major-claims expenditure and reduced loss reserve releases were mainly responsible for this development.

Engineering

		2016	Prev. year	Change
				%
Gross premiums written	€m	752	823	-8.6
Combined ratio	%	95.9	89.7	
Underwriting result before claims equalisation provision and similar provisions	€m	28	76	-63.2

In engineering reinsurance (machinery, EAR, CAR, EEI, etc.), premium income was down somewhat on the previous year. The technical result fell year on year, especially owing to lower loss reserve releases than in the previous year.

Other classes

		2016	Prev. year	Change
				%
Gross premiums written	€m	2,355	2,033	15.8
Combined ratio	%	100.7	99.4	
Underwriting result before claims equalisation provision and similar provisions	€m	-16	10	–

We subsume the remaining classes of property reinsurance under other classes of business: burglary, plate glass, hail (including agricultural reinsurance), water damage, contingency, windstorm, livestock and householders' and homeowners' comprehensive reinsurance – as well as credit and fidelity guarantee reinsurance.

Premium income increased appreciably year on year, essentially because of the generation of additional business in the UK. The combined technical result of these other classes of business showed a marginal loss in the financial year, whereas in 2015 we had recorded a profit. The result deteriorated year on year, mainly because of higher commissions.

Non-technical result

Yields on government bonds in Germany and the USA hit historical lows during the course of 2016 and did not start to climb again more strongly until the final months of the year. While the European Central Bank intensified its expansionary monetary policies, the US Federal Reserve raised its key interest rates. Equity markets were subject to increased volatility over the course of the year, but the performance for the full year 2016 was positive overall. The EURO STOXX 50 went up by around 1% in the period under review, the DAX 30 climbed by about 7%, and the Dow Jones Index saw an increase of around 13%. The euro exchange rate fell slightly against most major currencies in the course of the year, and only increased substantially against the pound sterling.

In the 2016 financial year, Munich Reinsurance Company's return on investment (including deposits retained on assumed reinsurance) totalled 5.0% (3.1%) on the basis of carrying amounts.

Investment result

€m	2016	Prev. year
Regular income	3,134	3,411
Write-ups and write-downs	94	–1,479
Realised gains/losses on the disposal of investments	1,022	672
Other income/expenses	-343	-276
Total	**3,907**	**2,328**

The significant improvement in the investment result was largely attributable to a positive balance from write-ups and write-downs and to the disposal of a financial asset in a subsidiary of Munich Reinsurance Company for the purpose of optimising Munich Re's structure taking into account tax and commercial law aspects. ↗

Profit for the year

The profit of €3,411m for 2016 is €833m higher than that of 2015 (€2,578m), mainly on account of a reduced allocation to the claims equalisation provision and the increased non-technical result. Besides the investment result, the other income also saw an improvement, especially because of positive foreign exchange influences and income generated by a change in the averages used in calculating liabilities arising from pension commitments due to a change in legislation.

Unlike in the previous year, Munich Reinsurance Company's taxable income was positive in the 2016 financial year and is subject to the minimal tax rate. This led to a tax expense in the current year. The remeasurement of provisions for tax risks raised the tax burden further.

Financial position

Balance sheet structure of Munich Reinsurance Company

	2016	Prev. year	Change
	T€	T€	%
Intangible assets	12	19	-36.8
Investments	79,295	76,848	3.2
Receivables	5,937	4,269	39.1
Other assets	559	528	5.9
Deferred items	332	420	-21.0
Excess of plan assets over pension liabilities	534	346	54.3
Total assets	**86,670**	**82,430**	**5.1**
Equity	11,992	10,878	10.2
Subordinated liabilities	4,128	4,267	-3.3
Technical provisions	59,265	56,764	4.4
Other provisions	1,908	1,920	-0.6
Deposits retained on retroceded business	2,057	2,728	-24.6
Other liabilities	7,292	5,852	24.6
Deferred items	28	21	33.3
Total equity and liabilities	**86,670**	**82,430**	**5.1**

In the 2016 financial year, Munich Reinsurance Company generated net retained profits of €1,754m (1,376m) according to German accountancy rules. Including these net retained profits, the Company's revenue reserves amounted to €4,574m (3,460m) as at the balance sheet date, of which €407m (142m) is subject to a restriction on distribution. The distributable funds thus amount to €4,167m (3,318m).

The shareholders' equity of Munich Reinsurance Company as determined under German accountancy rules is protected effectively against the risk of loss arising from a random accumulation of losses by a claims equalisation provision totalling €10,126m (9,764m). Given our robust capitalisation according to all calculation methods, we intend – subject to the approval of the Annual General Meeting – to pay our shareholders a dividend that is €0.35 higher than in the previous year at €8.60 per share, or a total of €1,338m, from Munich Reinsurance Company's net retained profits for the 2016 financial year.

The carrying amount of Munich Reinsurance Company's investments (excluding deposits retained on assumed reinsurance) rose by €1,625m to €67,073m (65,448m) in the 2016 financial year. Investments in bearer bonds and other fixed-interest securities showed a rise of €2,367m owing to investments mainly in European, Canadian and US government bonds. New investments were mainly made in covered bonds and government bonds.

As at 31 December 2016, 96% of our fixed-interest securities were investment-grade and around 89% were rated "A" or better.

Equity[1]

€m	2016	Prev. year
Issued capital	573	573
Capital reserve	6,845	6,845
Revenue reserves	2,821	2,083
Net retained profits	1,754	1,376
Equity	**11,992**	**10,878**

1 Information on Section 160 (1) no. 2 of the German Stock Corporation Act can be found on page 21 of Munich Reinsurance Company's Annual Report 2016.

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

The claims equalisation provision is established for individual classes of property-casualty business. It serves to smooth significant fluctuations in loss experience over a number of years. Its recognition and measurement are largely governed by legal provisions.

If, in a given financial year, loss ratios in individual classes of business are significantly in excess of the long-term average (which amounts to 15 years in most classes), the claims equalisation provision is reduced and the above-average loss expenditure is largely offset. According to current calculations, it is likely that there will be a major release in 2017, as from that year on the very poor 2001 accident year (when the World Trade Center loss occurred) no longer needs to be taken into consideration in the averaging.

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

The balance sheet item "claims equalisation provision and similar provisions" increased by €391m to €10,645m (10,254m) in the 2016 financial year. Owing to the positive results, we were able to strengthen the claims equalisation provision by significant amounts in some classes of business – especially in other classes where the allocation amounted to €259m (94m) and in liability to €209m (348m), and the amounts concerned for other areas were €82m (37m) for accident and €66m (–82m) for motor.

By contrast, owing to a decrease in the maximum amounts allowed – or to poor business performance – the claims equalisation provision was reduced in some classes of business: by €116m in fire (+€210m), by €48m in credit (€81m), by €37m in aviation (+€105m), by €35m in marine (€37m), and by €18m in engineering (+€53m).

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

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.

Combined Statement of Corporate Governance for the 2016 financial year pursuant to Section 289a and Section 315(5) of the German Commercial Code (HGB)

Munich Reinsurance Company has submitted the Statement on Corporate Governance in accordance with Section 289a of the Commercial Code (HGB), and in accordance with Section 315 (5) HGB with respect to the Group, and has made them publicly accessible on its website. The Statements have been combined and can be found 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 on page 66 ff. and in the opportunities report on page 75 ff.

Remuneration report of Munich Reinsurance Company

The principles regarding the structure and design of the compensation system of Munich Reinsurance Company correspond to those of the Group. The remuneration report can be found on page 29 ff.

Further information

On 31 December 2016, Munich Reinsurance Company had 4,143 employees.

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

In anticipation of the assumption of business operations as at 1 January 2017, the subsidiary Great Lakes Reinsurance (UK) SE, London, was renamed Great Lakes Insurance SE, Munich, on 30 December 2016.

Prospects

The projections by Munich Reinsurance Company about the future development of its business are subject to the same influences as the reinsurance life and health and reinsurance property-casualty segments presented in the consolidated financial statements. You will find this information on page 79 f.

Against this background, Munich Reinsurance Company should post gross premium of around €24bn in 2017 – assuming that exchange rates remain constant. We expect the combined ratio to be around 97% of net earned premium. An accurate forecast is not possible, partly due to the obvious fluctuations in the incidence of major losses. Taking the preceding financial year as a basis and assuming average claims experience for 2017, we project that the technical result before claims equalisation provision will be at a slightly lower level than in the year under review.

Given the ongoing low-interest-rate environment, Munich Reinsurance Company's return on investment is likely to continue to fall. As things stand at present, we expect to achieve a good German GAAP result in 2017, although it is likely to be lower than in the year under review.

Consolidated financial statements and notes

3

Consolidated balance sheet as at 31 December 2016[1]

Assets

	Notes			31.12.2016	Prev. year		Change
		€m	€m	€m	€m	€m	%
A. Intangible assets							
I. Goodwill	(1)		2,817		2,790	27	1.0
II. Other intangible assets	(2)		1,303		1,171	132	11.2
				4,120	**3,961**	**159**	**4.0**
B. Investments							
I. Land and buildings, including buildings on third-party land	(3)		4,444		4,317	126	2.9
II. Investments in affiliated companies, associates and joint ventures	(5)		1,711		1,278	434	33.9
Thereof: Associates and joint ventures accounted for using the equity method			1,565		1,125	440	39.1
III. Loans	(6)		53,691		53,516	175	0.3
IV. Other securities							
1. Available for sale	(7)	147,843			141,543	6,300	4.5
2. At fair value through profit or loss	(8)	2,672			2,551	121	4.8
			150,515		144,094	6,422	4.5
V. Deposits retained on assumed reinsurance	(9)		5,240		7,253	–2,013	–27.8
VI. Other investments	(10)		3,814		4,635	–821	–17.7
				219,416	**215,093**	**4,323**	**2.0**
C. Insurance-related investments	**(8)**			**9,558**	**9,163**	**395**	**4.3**
D. Ceded share of technical provisions	**(11)**			**3,669**	**4,327**	**–658**	**–15.2**
E. Receivables							
I. Current tax receivables			623		569	54	9.5
II. Other receivables	(12)		13,919		11,823	2,097	17.7
				14,542	**12,391**	**2,151**	**17.4**
F. Cash at banks, cheques and cash in hand				**3,353**	**3,955**	**–602**	**–15.2**
G. Deferred acquisition costs	**(13)**						
Gross			9,634		9,428	206	2.2
Ceded share			–95		–80	–15	–18.4
Net				9,539	9,348	191	2.0
H. Deferred tax assets	**(14)**			**328**	**206**	**122**	**59.1**
I. Other assets	**(15)**			**3,280**	**3,477**	**–197**	**–5.7**
J. Assets held for sale[2]	**(16)**			**0**	**6,947**	**–6,947**	**–100.0**
Total assets				**267,805**	**268,868**	**–1,063**	**–0.4**

1 Previous year's figures adjusted owing to IAS 8; see "Changes in accounting policies and other adjustments".
2 For the previous year's figures, see Notes to the consolidated balance sheet – Assets (16) Non-current assets and disposal groups held for sale and sold during the reporting period.

Equity and liabilities

	Notes	31.12.2016		Prev. year	Change	
		€m	€m	€m	€m	%
A. Equity	**(17)**					
I. Issued capital and capital reserve		7,417		7,418	-1	0.0
II. Retained earnings		14,890		14,110	779	5.5
III. Other reserves		6,628		6,032	596	9.9
IV. Consolidated result attributable to Munich Reinsurance Company equity holders		2,580		3,107	-527	-17.0
V. Non-controlling interests		269		298	-29	-9.7
			31,785	**30,966**	**819**	**2.6**
B. Subordinated liabilities	**(19)**		**4,218**	**4,416**	**-198**	**-4.5**
C. Gross technical provisions						
I. Unearned premiums	(20)	8,984		8,841	143	1.6
II. Provision for future policy benefits	(21)	108,108		108,572	-463	-0.4
III. Provision for outstanding claims	(22)	61,362		59,756	1,606	2.7
IV. Other technical provisions	(23)	19,026		17,413	1,612	9.3
			197,480	**194,582**	**2,898**	**1.5**
D. Gross technical provisions for unit-linked life insurance	**(24)**		**8,429**	**8,201**	**228**	**2.8**
E. Other provisions	**(25)**		**4,895**	**4,145**	**750**	**18.1**
F. Liabilities						
I. Bonds and notes issued	(26)	324		314	9	3.0
II. Deposits retained on ceded business	(27)	828		1,521	-693	-45.6
III. Current tax liabilities		2,429		2,018	411	20.4
IV. Other liabilities	(28)	15,187		14,061	1,127	8.0
			18,768	**17,914**	**854**	**4.8**
G. Deferred tax liabilities	**(14)**		**2,230**	**2,343**	**-113**	**-4.8**
H. Liabilities related to assets held for sale[2]	**(16)**		**0**	**6,301**	**-6,301**	**-100.0**
Total equity and liabilities			**267,805**	**268,868**	**-1,063**	**-0.4**

Consolidated income statement for the financial year 2016[1]

Items » Consolidated income statement (XLS, 51 KB)

	Notes			2016	Prev. year		Change
		€m	€m	€m	€m	€m	%
Gross premiums written		**48,851**			**50,374**	**-1,523**	**-3.0**
1. Earned premiums	**(29)**						
Gross		48,664			50,219	-1,555	-3.1
Ceded share		-1,546			-1,910	364	19.1
Net			47,118		48,309	-1,191	-2.5
2. Income from technical interest	**(30)**		**6,490**		**6,713**	**-223**	**-3.3**
3. Expenses for claims and benefits	**(31)**						
Gross		-39,167			-39,756	588	1.5
Ceded share		669			1,025	-356	-34.7
Net			-38,498		-38,731	233	0.6
4. Operating expenses	**(32)**						
Gross		-12,655			-12,846	190	1.5
Ceded share		360			478	-118	-24.7
Net			-12,295		-12,367	72	0.6
5. Technical result (1–4)				**2,815**	**3,924**	**-1,109**	**-28.3**
6. Investment result	**(33)**		**7,567**		**7,536**	**31**	**0.4**
Thereof: Income from associates and joint ventures accounted for using the equity method			121		375	-253	-67.6
7. Insurance-related investment result	**(34)**		**326**		**140**	**186**	**132.6**
8. Other operating income	**(35)**		**744**		**873**	**-129**	**-14.7**
9. Other operating expenses	**(35)**		**-938**		**-941**	**3**	**0.3**
10. Deduction of income from technical interest			**-6,490**		**-6,713**	**223**	**3.3**
11. Non-technical result (6–10)				**1,210**	**896**	**314**	**35.1**
12. Operating result				**4,025**	**4,819**	**-795**	**-16.5**
13. Other non-operating result	**(36)**			**-437**	**-532**	**95**	**17.8**
14. Impairment losses on goodwill	**(36)**			**-28**	**-452**	**424**	**93.7**
15. Net finance costs	**(36)**			**-219**	**-238**	**19**	**8.0**
16. Taxes on income	**(37)**			**-760**	**-476**	**-284**	**-59.8**
17. Consolidated result				**2,581**	**3,122**	**-541**	**-17.3**
Thereof: Attributable to Munich Reinsurance Company equity holders				2,580	3,107	-527	-17.0
Attributable to non-controlling interests	(17)			1	15	-14	-96.4
	Notes			€	€	€	%
Earnings per share	**(53)**			**16.13**	**18.73**	**-2.60**	**-13.9**

1 Previous year's figures adjusted owing to IAS 8; see "Changes in accounting policies and other adjustments".

Statement of recognised income and expense for the financial year 2016

€m	2016	Prev. year
Consolidated result	**2,581**	**3,122**
Currency translation		
Gains (losses) recognised in equity	345	1,420
Recognised in the consolidated income statement	0	0
Unrealised gains and losses on investments		
Gains (losses) recognised in equity	1,394	-933
Recognised in the consolidated income statement	-1,129	-888
Change resulting from equity method measurement		
Gains (losses) recognised in equity	12	-40
Recognised in the consolidated income statement	0	0
Change resulting from cash flow hedges		
Gains (losses) recognised in equity	-1	1
Recognised in the consolidated income statement	0	0
Other changes	0	25
I. Items where income and expenses recognised directly in equity are reallocated into the consolidated income statement	620	-416
Remeasurements of defined benefit plans	-76	266
Other changes	0	0
II. Items where income and expenses recognised directly in equity are not reallocated to the consolidated income statement	-76	266
Income and expense recognised directly in equity (I + II)	**544**	**-150**
Total recognised income and expense	**3,125**	**2,972**
Thereof: Attributable to Munich Reinsurance Company equity holders	3,133	2,947
Attributable to non-controlling interests	-8	24

Group statement of changes in equity for the financial year 2016

€m	Issued capital	Capital reserve
Balance at 31.12.2014	**572**	**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 valuation at 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/sale of own shares	–20	0
Retirement of own shares	21	0
Balance at 31.12.2015	**573**	**6,845**
Allocation to retained earnings	0	0
Consolidated result	0	0
Income and expense recognised directly in equity	0	0
Currency translation	0	0
Unrealised gains and losses on investments	0	0
Change resulting from valuation at 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/sale of own shares	–21	0
Retirement of own shares	20	0
Balance at 31.12.2016	**573**	**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			
	13,669	**-678**	**6,026**	**434**	**-2**	**3,152**	**271**	**30,289**
	1,859	0	0	0	0	-1,859	0	0
	0	0	0	0	0	3,107	15	3,122
	266	0	-1,841	1,415	1	0	10	-150
	0	0	0	1,415	0	0	5	1,420
	0	0	-1,817	0	0	0	-5	-1,821
	-15	0	-25	0	0	0	0	-40
	0	0	0	0	1	0	0	1
	258	0	0	0	0	0	8	266
	23	0	0	0	0	0	2	25
	266	0	-1,841	1,415	1	3,107	24	2,972
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	5	5
	0	0	0	0	0	-1,293	-2	-1,295
	0	-1,006	0	0	0	0	0	-1,026
	-1,002	1,002	0	0	0	0	0	21
	14,793	**-683**	**4,185**	**1,848**	**-1**	**3,107**	**298**	**30,966**
	1,778	0	0	0	0	-1,778	0	0
	0	0	0	0	0	2,580	1	2,581
	-44	0	256	347	-7	0	-9	544
	0	0	0	347	0	0	-3	345
	0	0	268	0	0	0	-2	265
	29	0	-12	0	-6	0	0	12
	0	0	0	0	-1	0	0	-1
	-72	0	0	0	0	0	-4	-76
	0	0	0	0	0	0	0	0
	-44	0	256	347	-7	2,580	-8	3,125
	15	0	0	0	0	0	-19	-4
	0	0	0	0	0	0	0	0
	0	0	0	0	0	-1,329	-2	-1,330
	0	-970	0	0	0	0	0	-991
	-999	999	0	0	0	0	0	20
	15,544	**-654**	**4,441**	**2,195**	**-8**	**2,580**	**269**	**31,785**

Consolidated cash flow statement for the financial year 2016

€m	2016	Prev. year
Consolidated result	**2,581**	**3,122**
Net change in technical provisions	2,783	3,798
Change in deferred acquisition costs	-203	62
Change in deposits retained and accounts receivable and payable	90	196
Change in other receivables and liabilities	-414	-86
Gains and losses on the disposal of investments	-2,029	-1,943
Change in securities at fair value through profit or loss	-921	-1,683
Change in other balance sheet items	737	77
Other non-cash income and expenses	508	784
I. Cash flows from operating activities	3,132	4,327
Change from losing control of consolidated subsidiaries	235	36
Change from obtaining control of consolidated subsidiaries	-397	-67
Change from the acquisition, sale and maturity of other investments	-1,200	-566
Change from the acquisition and sale of investments for unit-linked life insurance contracts	-8	-446
Other	86	13
II. Cash flows from investing activities	-1,284	-1,030
Inflows from increases in capital and from non-controlling interests	0	0
Outflows to ownership interests and non-controlling interests	-974	-1,005
Dividend payments	-1,330	-1,295
Change from other financing activities	-227	-37
III. Cash flows from financing activities	-2,531	-2,337
Cash flows for the financial year (I + II + III)	**-683**	**960**
Effect of exchange-rate changes on cash and cash equivalents	-5	169
Cash at the beginning of the financial year	4,041	2,912
Cash at the end of the financial year	3,353	4,041
Thereof:		
Cash not attributable to disposal group[1]	3,353	3,955
Cash attributable to disposal group	0	86
Additional information		
Income tax paid (net) – included in the cash inflows from operating activities	-231	-117
Dividends received	594	660
Interest received	5,533	6,138
Interest paid	-359	-455

1 For a definition of the disposal group, see Assets – J Assets held for sale.

Notes to the consolidated financial statements

Application of International Financial Reporting Standards (IFRSs)

Munich Re's consolidated financial statements have been prepared on the basis of Section 315a (1) of the German Commercial Code (HGB) in conjunction with Article 4 of Regulation (EC) No. 1606/2002 of the European Parliament and of the Council of 19 July 2002 concerning the application of international accounting standards. We have complied with the international accounting standards adopted in accordance with Articles 2, 3 and 6 of the aforementioned Regulation, and with the rules designated in Section 315a (1) of the Commercial Code.

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

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

In November 2016, the Board of Management and Supervisory Board of Munich Reinsurance Company published an updated Declaration of Conformity with the German Corporate Governance Code in accordance with Section 161 of the German Stock Corporation Act (AktG), and made this Declaration permanently available to shareholders on the internet at www.munichre.com/cg-en.

Recognition and measurement

Use of judgements and estimates in recognition and measurement

In preparing the consolidated financial statements, we have to use our judgement in applying accounting policies and to make estimates and assumptions that affect the year-end items shown in the consolidated balance sheet, the consolidated income statement and the disclosures on contingent liabilities.

Particularly in primary insurance and reinsurance, the use of estimates for measuring technical provisions is of substantial significance, given that measurement is invariably based on models, and the development of future cash flows from insurance contracts cannot be conclusively predicted. But judgements and estimates play a significant role with respect to other items as well.

Our internal processes are geared to determining amounts as accurately as possible, taking into account all the relevant information. The basis for determining amounts is management's best knowledge regarding the items concerned at the reporting date. Nevertheless, it is in the nature of these items that estimates may have to be adjusted in the course of time to take account of new knowledge.

Discretionary judgement and estimates are of significance for the following items in particular and are described in more detail in the respective explanatory notes:

- Consolidated group
- Goodwill and other intangible assets
- Fair values and impairments of financial instruments
- Deferred acquisition costs
- Technical provisions
- Pension provisions
- 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.

Figures for previous years

Changes in accordance with the rules of IAS 8 necessitated the retrospective adjustment of the figures from the consolidated balance sheet for the financial years 2014 and 2015, and of the consolidated income statement and relevant items of the notes to the consolidated financial statements for the year 2015 (see section "Changes in accounting policies and other adjustments"). The other previous-year figures have been calculated on the same basis as the figures for the financial year 2016.

Changes in accounting policies and other adjustments

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

In the 2016 financial year, the following amended IFRSs had to be applied for the first time, after having been adopted into European law:

- Amendments to IAS 19 (rev. 11/2013), Defined Benefit Plans: Employee Contributions
- Amendments published as part of the "Annual Improvements to IFRSs 2010–2012 Cycle", (rev. 12/2013)
- Amendments to IAS 16 and IAS 38 (rev. 5/2014), Clarification of Acceptable Methods of Depreciation and Amortisation
- Amendments to IFRS 11 (rev. 5/2014), Accounting for Acquisitions of Interests in Joint Operations
- Amendments to IAS 16 and IAS 41 (rev. 6/2014), Agriculture: Bearer Plants
- Amendments to IAS 27 (rev. 8/2014), Equity Method in Separate Financial Statements
- Amendments published as part of the "Annual Improvements to IFRSs 2012–2014 Cycle", (rev. 9/2014)
- Amendments to IFRS 10, IFRS 12 and IAS 28 (rev. 12/2014), Investment Entities: Applying the Consolidation Exception
- Amendments to IAS 1 (rev. 12/2014), Disclosure Initiative

These amendments have little or no material effects on Munich Re.

Deferred tax assets and liabilities are now 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. Consolidation of intra-Group income and debt between the operating segments was adjusted accordingly and involved a change to the accounting standards pursuant to IAS 8.14.

Furthermore, portions of the investment income that the segment generated with other segments and that were eliminated in consolidation, were no longer taken into account in calculating the income from technical interest in the ERGO Life and Health Germany segment. The items concerned were corrected retrospectively in the second quarter in line with IAS 8.41.

The adjustments had the following effects on the consolidated balance sheets for the 2014 and 2015 financial years and on the consolidated income statement for 2015:

Consolidated balance sheet

€m	31.12.2014 as originally recognised	Changes due to adjustments in 2014	31.12.2014
Assets			
H. Deferred tax assets	7,606	–7,385	221
Equity and liabilities			
G. Deferred tax liabilities	9,776	–7,385	2,391

Consolidated balance sheet

€m	31.12.2015 as originally recognised	Changes due to adjustments in 2015	31.12.2015
Assets			
H. Deferred tax assets	7,859	–7,653	206
Equity and liabilities			
G. Deferred tax liabilities	9,995	–7,653	2,343

Consolidated income statement

€m	2015 as originally recognised	Changes due to adjustments in 2015	2015
2. Income from technical interest	6,803	–90	6,713
5. Technical result	4,014	–90	3,924
10. Deduction of income from technical interest	–6,803	90	–6,713
11. Non-technical result	806	90	896

Standards or changes in standards not yet entered into force

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

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

For financial liabilities, there are no changes in the measurement rules except that if the fair value option is applied, value changes attributable to a change in the entity's credit risk must in future be recognised without impact on profit or loss.

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

Hedge accounting under IFRS 9 focuses more strongly on the entity's risk management activities than was the case under the current rules of IAS 39.

The provisions of IFRS 9 are associated with extensive additional disclosures required in the appendices that were adopted in IFRS 7, Financial Instruments: Disclosures. The provisions are mandatory for financial years beginning on or after 1 January 2018.

Due to the great importance of this standard for Munich Re, we have established a project to analyse the provisions in detail and to set up the required implementation processes.

The revision of the IFRS governing recognition and measurement of insurance contracts (IFRS 17, Insurance Contracts) is expected to be released in the first half of 2017, but application of the new rules will not be mandatory until 2021. Due to the close interlinking of underwriting liabilities and investments of insurance companies, it is essential to have an aligned valuation of these line items in the balance sheet in order to prevent balance sheet distortions. For this reason, the insurance industry has been pressing for a postponement of the mandatory first application of IFRS 9 for the industry until application can be aligned with the insurance standard.

The IASB took account of these concerns, and published an amendment standard to IFRS 4, Insurance Contracts in September 2016. This gives a defined circle of insurance companies the possibility of postponing the first-time application of IFRS 9 to 2021. In the interim period, companies would have to make additional investment disclosures in order to ensure a degree of comparability with companies that would already be applying IFRS 9. Munich Re is currently planning to make use of this option.

IFRS 15 (5/2014), Revenue from Contracts with Customers, governs the time and amount of revenue to be recognised by an entity. As revenues from insurance contracts and financial instruments do not fall under the new standard, this standard is immaterial for accounting our core business, and no material effects are expected after it is implemented. In April 2016, the IASB published Clarifications to IFRS 15 Revenue from Contracts with Customers. These clarifications are also of no particular relevance to Munich Re. The provisions of IFRS 15 are mandatory for financial years beginning on or after 1 January 2018.

In January 2016, the IASB published the new **IFRS 16 (1/2016), Leases**. Under the new rules, lessees will in future be required to account for most of their leases in their balance sheets. They will consequently have to recognise a right-of-use asset and a lease liability. There will be no distinction any more between finance and operating leases, but for the lessor accounting will remain largely unchanged compared with the current rules. We do not expect the new rules to have any material effects on the consolidated financial statements of Munich Re. The standard is mandatory for financial years beginning on or after 1 January 2019.

IFRS 9 and IFRS 15 were adopted into European law in November and September 2016 respectively. The adoption of IFRS 16 is still outstanding.

The IASB has also published amendments to the following standards that have not yet been adopted into European law:

- Amendments to IFRS 10 and IAS 28 (rev. 9/2014), Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
- Amendments to IAS 7 (rev. 1/2016), Disclosure Initiative
- Amendments to IAS 12 (rev. 1/2016), Recognition of Deferred Tax Assets for Unrealised Losses
- Amendments to IFRS 2 (rev. 6/2016), Classification and Measurement of Share-based Payment Transactions
- Amendments to IAS 40 (rev. 12/2016), Transfers of Investment Property
- Amendments published as part of the "Annual Improvements to IFRSs 2014–2016 Cycle", (rev. 12/2016)
- IFRIC 22 (12/2016), Foreign Currency Transactions and Advance Consideration.

The amendments will become mandatory in 2017 or 2018, but have little or no material effects on Munich Re.

Consolidation

Consolidated group

The consolidated financial statements include Munich Reinsurance Company and all the entities over which Munich Reinsurance Company directly or indirectly exercises control (subsidiaries).

Munich Reinsurance Company directly or indirectly holds all, or a clear majority of, the voting rights in most of the entities included in the consolidated group.

We include a small number of entities in the consolidated group on the basis that contractual rights are taken into consideration that result in determination of control over the relevant business activities. In assessing the need to consolidate shares in investment funds, we take particular account of the degree of variability in the remuneration of the fund manager, of dismissal rights, and of the role of the investors in committees and bodies of the investment fund. As a result, an assessment that we do exercise control sometimes occurs even though the shareholding is below 50%.

In assessing whether control exists for structured entities, we focus our analysis on the decisions still to be made within the corresponding unit and on the agency relationships between the parties. For structured entities used by us to issue catastrophe bonds, we focus above all on our relationship to the trustees and our possibilities to influence their decision-making. Generally, we do not control such structured entities, even if we hold their bonds.

A list of all our shareholdings can be found in the section "List of shareholdings as at 31 December 2016 in accordance with Section 313 (2) of the German Commercial Code (HGB)".

Cash flows and net assets from obtaining and losing control of consolidated subsidiaries or other operations are shown in the tables:

Cash flows arising from obtaining control

€m	2016	Prev. year
Total consideration for obtaining control	-428	-81
Non-cash consideration for obtaining control	0	-1
Cash consideration for obtaining control	**-428**	**-80**
Cash over which control was obtained	32	13
Total	**-397**	**-67**

Net assets acquired

€m	31.12.2016	Prev. year
Goodwill/gain from bargain purchase	9	-1
Other intangible assets	289	8
Investments	795	493
Cash	32	13
Other assets	189	5
Technical provisions (net)	-723	0
Other liabilities	-167	-106
Total	**423**	**412**

Cash flows arising from losing control

€m	2016	Prev. year
Total consideration for losing control	294	37
Non-cash consideration for losing control	0	0
Cash consideration for losing control	**294**	**37**
Cash over which control was lost	-59	-1
Total	**235**	**36**

Net assets disposed of

€m	31.12.2016	Prev. year
Goodwill	0	0
Other intangible assets	-2	-1
Investments	-5,045	-79
Cash	-59	-1
Other assets	-371	-16
Technical provisions (net)	3,157	59
Other liabilities	1,801	9
Total	**-520**	**-30**

Information on gains and losses from losing control can be found in the notes to the consolidated balance sheet under Assets (16) Non-current assets and disposal groups held for sale that were sold in the reporting period.

Business combinations occurring during the reporting period

On 1 January 2016, via its subsidiary MR RENT-Investment GmbH, Munich, Munich Re acquired 100% of the voting shares in the solar park company Lynt Farm Solar Ltd., London, UK, from Solarpark Lynt GmbH, Gräfelfing, Germany. The solar park has total installed capacity of 26.9 megawatts.

On 12 January 2016, via its subsidiary MR RENT-Investment GmbH, Munich, Munich Re acquired 100% of the voting shares in the wind park company Eolus Vindpark Tio AB, Hässleholm, Sweden, from Eolus Vindpark Nio AB, Hässleholm, Sweden. Eolus Vindpark Tio AB was renamed Wind Farms Västra Götaland AB immediately after the acquisition, and owns wind power plants with a total installed capacity of 12 megawatts.

The acquisitions are part of our infrastructure investment strategy (including renewable energies and new technologies).

On 19 July 2016, via its subsidiaries ERGO Austria International AG, Vienna, Austria, and ERGO Versicherung AG, Vienna, Austria, Munich Re acquired 100% of the voting shares in ERGO ASIGURARI S.A., Bucharest, Romania, for cash. ERGO ASIGURARI offers a broad spectrum of property-casualty insurance products, with a focus on the motor own damage, personal accident, liability and fire classes of business. Through the acquisition of ERGO ASIGURARI S.A., ERGO is consistently pursuing its international growth strategy, developing new sales channels and entering the Romanian property-casualty insurance market with its attractive growth opportunities.

On 1 August 2016, via its subsidiary ERGO International AG, Düsseldorf, Munich Re acquired 100% of the voting shares in AGROTIKI Insurance S.A. (ATE Insurance), Athens, Greece, for a cash amount currently estimated at €83m. Negotiations with the seller with respect to the final purchase price on the basis of the contractual conditions were not yet settled as at the balance sheet date. ATE Insurance focuses on property-casualty insurance, in particular motor and fire business, and it also offers life insurance products in the Greek insurance market. In acquiring ATE, ERGO is significantly expanding its presence in Greece and will thus become the largest property-casualty insurer in Greece. The initial accounting of the acquired assets and liabilities was not yet complete at the time the consolidated financial statements were prepared, and so the figures shown are presented on a provisional basis. There may be changes to recognition and measurement of technical provisions. Therefore, at the moment it is not possible to give a definitive assessment of the potential difference that may arise between the amounts. For the period between 1 August and the balance sheet date, income and expenses for ATE Insurance were included in the consolidated income statement. Gross premiums written of €46.3m were recognised. The contribution to the consolidated result was not material. If the business combination had already been complete on 1 January 2016, ATE Insurance would have contributed gross premiums written of €117.7m to Group revenues and a result of €52.2m to the consolidated result.

On 23 September 2016, via its subsidiary Munich American Holding Corporation, Wilmington, Delaware, USA, Munich Re acquired 100% of the voting shares in the structured entity Financial Reassurance Company 2010, Ltd., Burlington, Vermont, USA from Citigroup Insurance Holding Corporation, Duluth, Georgia, USA for a total of CAD$ 445.6m (€302.5m) in cash. The company was renamed Munich Re Life Insurance Company of Vermont (Munich Re, Vermont). Goodwill in the amount of €1.6m resulted from the difference between model-based remeasurement of the shareholders' equity at fair value at the time of the acquisition and the actual market price paid. It was written off in full. The purpose of Munich Re, Vermont is to provide reinsurance for a Canadian portfolio of term life policies. The portfolio is secured by bonds in line with the requirements of the Canadian regulatory authorities. The transaction strengthens Munich Re's global life reinsurance business. The income and expenses included in the consolidated income statement for Munich Re, Vermont for the period between 23 September and the balance sheet date are not material. If the business combination had already been complete on 1 January 2016, Munich Re, Vermont would have contributed gross premiums written of €92.0m to Group revenue and a result of €14.9m to the consolidated result.

On 4 October 2016, via its subsidiary HSB Group, Inc., Dover, Delaware, USA, Munich Re acquired 100% of the voting shares in Meshify, Inc., Houston, USA. Meshify Inc. is a start-up company that offers technology to link separate devices through the Internet of Things (IoT). The acquisition strengthens HSB's IoT strategy, which supports insurers and other companies by providing operational services and technologies (IoT applications) in order to improve their operations and avoid or reduce losses.

The IFRS fair values of the assets and liabilities of the acquired company at the time of acquisition are as follows:

IFRS fair values of the assets and liabilities at the acquisition date

€m	ATE Insurance	Munich Re Vermont
Purchase price	**83.0**	**302.5**
Assets acquired		
Intangible assets	4.3	274.4
Investments	444.1	288.6
Receivables[1]	35.7	6.8
Cash at bank, cheques and cash in hand	4.8	12.8
Deferred tax assets	100.3	0.0
Other assets	84.1	1.8
Liabilities assumed		
Technical provisions	-479.8	-283.3
Other provisions and liabilities	-70.8	-0.2
Contintent liabilities recognised pursuant to IFRS 3.23[2]	-39.6	0.0

1 The fair value of the receivables acquired as part of the transactions corresponds to the carrying amount. No defaults were expected at the acquisition date.
2 The Company is the defendant in a legal proceedings regarding a liability policy and business interruption cover.The Company is also expecting potential lawsuits to be filed by staff. No reliable statement can be made with regard to the potential size of the claim or timing of payments, since the legal proceedings are still ongoing.

Associates and joint ventures

Entities and special funds are considered associates if we are able to significantly influence their financial and operating policies. We regularly operate on this assumption if we hold between 20% and 50% of the voting power or similar rights, unless the financial and operating policies of the entity or special fund are largely pre-determined.

Entities and special funds are considered joint ventures if we are able to determine their relevant operations solely by unanimous agreement of all parties entitled to joint control, and we only have rights to their net assets.

Joint operations

A joint operation exists if its relevant operations can only be determined by unanimous agreement of all parties entitled to joint control, and these parties – due to the legal form of the joint operation, contractual provisions or other circumstances – have rights to assets and obligations for the liabilities of the joint operation, instead of rights to net assets.

We recognise our share of assets, liabilities, income and expenses of joint operations in which we have joint control in the balance sheet in accordance with the relevant IFRSs.

Structured entities

Structured entities are entities that have been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant business activities are directed by means of contractual arrangements.

Munich Re has interests in both consolidated and unconsolidated structured entities.

Munich Re classifies **unconsolidated structured entities** as either investment funds or securitisation vehicles on the basis of the type of structured entity.

Investment funds As part of its investment activities Munich Re invests in investment funds on its own behalf, and on behalf of policyholders under unit-linked life insurance. Investment funds are mainly financed by issuing redeemable shares or units. Some of the investment funds are managed by MEAG MUNICH ERGO AssetManagement GmbH, others by fund managers outside the Group. We also report under investment funds all investments in infrastructure (including renewable energies and new technologies) forestry, private equity and other investments.

Securitisation vehicles Munich Re invests in debt securities that are issued by securitisation vehicles which are not set up by Munich Re. Munich Re also 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. Munich Re invests in various securities whose repayment and interest is generally linked to the occurrence of natural catastrophes. The securities are issued by securitisation vehicles which as a matter of general policy are not set up by Munich Re.

Size of structured entities For investment funds, including investments in infrastructure (including renewable energies and new technologies), forestry, private equity and other investments, and investment funds for policyholders under unit-linked life insurance, the carrying amount gives an indication of the size of the structured entity. For debt securities and the securitisation of underwriting risks, the emission volume (nominal value) is used as an indicator for measuring the size of the structured entity. The size of the funds refers to both the issued volume of the securitisation vehicles set up by Munich Re and that of those securitisation vehicles in which Munich Re has invested.

Maximum exposure to loss With the exception of investment funds for investments for unit-linked life insurance, the maximum exposure to loss is the carrying amount of the respective items on the assets side, and zero for the items on the liabilities side. Therefore, for the items on the assets side, there is usually no difference between the carrying amount of interests in unconsolidated structured entities and the maximum exposure to loss.

Normally, the maximum exposure to loss for investments for unit-linked life insurance is also the carrying amount of the interests. However, the investment is held for the benefit of policyholders who bear the investment risk. ↗

Managed fund assets MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH also manages investment funds for private clients and institutional investors, for which it receives a management fee. The management fees are recognised as an expense in the consolidated income statement (commissions).

The maximum exposure to loss relates to the loss of future management fees. Fund management activities generated income of €34m (33m) in the 2016 financial year. The value of fund assets under management provides information about the size of the unconsolidated structured entities. As at 31 December 2016, the managed fund assets amounted to €3,836m (3,507m), and Munich Re itself also holds a small interest in these funds.

Sponsored unconsolidated structured entities
Munich Re provides structuring and consultancy services for clients within the context of the foundation and structuring of third-party securitisation vehicles. As at 31 December 2016, Munich Re did not have any interests in these structured entities.

Unconsolidated structured entities

	Investment funds – Munich Re investments	Investment funds – Investments for unit-linked life insurance	Securitisation vehicles – Debt securities	Securitisation vehicles – Underwriting risks	Total
€m	31.12.2016	31.12.2016	31.12.2016	31.12.2016	31.12.2016
Loans	100	0	0	0	100
Other securities					
Available for sale	3,155	0	3,975	555	7,686
At fair value through profit or loss	0	0	0	4	4
Deposits retained on assumed reinsurance	0	0	0	356	356
Investments for unit-linked life insurance contracts	0	6,866	0	0	6,866
Ceded share of technical provisions	0	0	0	0	0
Assets held for sale	0	0	0	0	0
Total assets	**3,255**	**6,866**	**3,975**	**915**	**15,012**
Technical provisions	0	0	0	8	8
Other liabilities	0	0	0	0	0
Total equity and liabilities	**0**	**0**	**0**	**8**	**8**
Size of structured entity	3,255	6,866	168,661	10,132	188,914

Unconsolidated structured entities

€m	Investment funds – Munich Re investments Prev. year	Investment funds – Investments for unit-linked life insurance Prev. year	Securitisation vehicles – Debt securities Prev. year	Securitisation vehicles – Underwriting risks Prev. year	Total Prev. year
Loans	0	0	0	0	0
Other securities					
Available for sale	2,654	0	4,464	549	7,667
At fair value through profit or loss	0	0	0	0	0
Deposits retained on assumed reinsurance	0	0	0	418	418
Investments for unit-linked life insurance contracts	0	6,536	0	0	6,536
Ceded share of technical provisions	0	0	0	0	0
Assets held for sale	304	28	64	0	396
Total assets	**2,958**	**6,563**	**4,528**	**967**	**15,017**
Technical provisions	0	0	0	0	0
Other liabilities	0	0	0	2	2
Total equity and liabilities	**0**	**0**	**0**	**2**	**2**
Size of structured entity	2,958	6,563	264,162	10,810	284,493

Assets

A Intangible assets

Goodwill resulting from the first-time consolidation of subsidiaries is tested for impairment at least annually. We additionally carry out ad-hoc impairment tests if there are indications of impairment. For impairment testing, the goodwill is allocated to the cash-generating units or groups of cash-generating units expected to derive benefit from the synergies of the business combination. To ascertain whether there is any impairment, the carrying amount (including allocated goodwill) of a cash-generating unit or group of cash-generating units is compared with that unit's or group's recoverable amount. The recoverable amount is the greater of the fair value less costs of disposal and the value in use. If this recoverable amount is lower than the carrying amount, a write-down for impairment is made on the goodwill. To determine the recoverable amount, numerous assumptions are required which may lead to significant differences in value. Information on the key assumptions is provided in the Notes to the consolidated balance sheet – Assets (1) Goodwill. Sensitivity analyses of changes to the key assumptions – which we consider realistic – are performed as part of the impairment tests. If as a result of these analyses the recoverable amount has fallen below the carrying amount, this is reported in the above-mentioned note.

The **other intangible assets** mainly comprise acquired insurance portfolios, acquired and internally developed software, and acquired sales networks, client bases and brand names.

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.

Internally developed and other software, acquired sales networks, client bases and brand names are carried at cost. Internally developed and other software is amortised on a straight-line basis at a rate of 20–33% over its useful life – three to five years – or in exceptional circumstances at a rate of at least 10% over a period of up to ten years. The useful lives and depreciation rates of the acquired sales networks and client bases are as a rule 2–17 years or 6–50% respectively, and those of the brand names 1–30 years or 3–100%; the items in question are generally amortised on a straight-line basis. 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 these to the functional areas, they are shown under "other non-operating result". Impairments or impairment losses reversed are recognised if required.

B Investments

Land and buildings shown under investments comprise property used by third parties and are carried at cost. Maintenance expenses are recognised as an expense. Structural measures equivalent to 5% or more of the historical cost of a building are generally assessed with regard to whether they have to be capitalised. Buildings are depreciated on a straight-line basis in accordance with the component approach, depending on the weighted useful life for their specific building class. The underlying useful lives mainly range between 40 and 55 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 regularly accounted for at fair value; changes in the fair value are recognised in "other reserves" under unrealised gains and losses. For the consolidated financial statements, investments in associates and joint ventures are measured using the equity method, i.e. with our share of their equity, and our earnings are included in the investment result. As a rule, the equity and annual result from the most recent individual or consolidated financial statements of the associate or joint venture are used. In the case of financial statements of important associates or joint ventures, appropriate adjustments are made to ensure they conform with Munich Re's accounting policies and exceptional transactions are recognised in the same reporting period.

Loans are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are measured at amortised cost in accordance with the effective interest method. Write-downs for impairments are made in cases where the repayment of a loan can no longer be expected.

Fixed-interest or non-fixed-interest securities available for sale that are not designated as at fair value through profit or loss or recognised under loans are accounted for at fair value, with resulting changes in value recognised in equity with no effect on profit or loss. Unrealised gains or losses are calculated taking into account interest accrued and, after deduction of deferred taxes and the amounts apportionable to policyholders by the life and health insurers on realisation (provision for deferred premium refunds), are recognised directly in equity under "other reserves".

Securities at fair value through profit or loss comprise securities held for trading and securities classified as at fair value through profit or loss. Securities held for trading mainly include all derivative financial instruments with positive fair values which we have acquired to manage and hedge risks but which do not meet the requirements of IAS 39 for hedge accounting. Securities designated as at fair value through profit or loss comprise structured securities.

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 mainly include deposits with banks and investments in renewable energy sources and physical gold and are accounted for at amortised costs. The effective interest method applies for deposits with banks. Investments in renewable energies are amortised on a straight-line basis at a rate of at least 4%, but mostly at 5%, over a useful life of 20–25 years. If required, impairment losses or impairment losses reversed follow the yearly 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.

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.

Securities that we lend by way of securities lending continue to be recognised in our balance sheet, as the main risks and rewards remain with Munich Re; securities that we have borrowed are not recognised in the balance sheet. Fees from securities lending are recognised in the investment result.

Recognition of financial instruments

Financial assets are accounted for at the trade date.

Determining fair values

IFRS 13 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 items that are recognised at fair value, and such investments and other items for which a fair value is disclosed solely in the notes, are allocated to one of the fair value hierarchy levels of IFRS 13, which provides for three levels.

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

Information on the valuation models and processes can be found in the Notes to the consolidated balance sheet – Assets (4) Hierarchy for the fair value measurement of investments. An internal process ensures that the measurement basis at every reporting date results in the correct allocation to the individual levels of the fair value hierarchy according to IFRS 13.

In the case of Level 1, valuation is based on unadjusted quoted prices in active markets for identical financial assets which Munich Re can refer to at the balance sheet date. If a quoted price in an active market is available, this should always be used. The financial instruments we have allocated to this level mainly comprise equities, equity funds, exchange-traded derivatives, and exchange-traded subordinated bonds.

Assets allocated to Level 2 are valued using models based on observable market data. If the financial instrument concerned has a fixed contract period, the inputs used for valuation must be observable for the whole of this period. Moreover, we have allocated to this level such investments for which prices are provided by price quoters but for which there is no proof that these were based on actual market transactions. The financial instruments we have allocated to this level mainly comprise bearer bonds and bond funds, borrowers' note loans, covered bonds, subordinated securities, derivatives not traded on the stock market, and physical gas.

For assets allocated to Level 3, we use valuation techniques not based on inputs observable in the market. This is only permissible insofar as no observable market data is available. The inputs used reflect Munich Re's assumptions regarding the factors which market players would consider in their pricing. We use the best available information for this, including internal company data. The financial instruments allocated to this level of the fair value hierarchy largely comprise land and buildings, real estate funds, funds that mainly invest in theoretically valued instruments, investments in private equity, certain credit structures, and investments in subsidiaries, associates and joint ventures measured at fair value. Insurance-linked derivatives are also allocated to Level 3.

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

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

Net investment result

The net investment result comprises regular income, income from write-ups, gains and losses on the disposal of investments, other income, write-downs of investments, management expenses, interest charges and other expenses. Regular income and expenses from investments not measured at fair value through profit or loss are calculated in accordance with the effective interest method, i.e. any premiums or discounts are deducted from or added to the acquisition costs, with impact on profit or loss, until maturity.

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 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

Investments for policyholders under unit-linked life insurance 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

Other insurance-related investments are not utilised for asset-liability management. They include insurance-linked derivatives, derivatives to hedge variable annuities, weather and commodity derivatives, and physical gas. Insurance-linked derivatives include derivatives embedded in variable annuities, the derivative components of natural catastrophe bonds and from securitisations of mortality and morbidity risks, individually structured insurance-linked derivatives, and derivative components which are separated from their host insurance contract in accounting. Insurance-linked derivatives also include retrocessions in the form of derivatives to hedge insurance risks assumed. Insurance risks are defined as risks which – in a modified form – can also be covered by an insurance contract within the meaning of IFRS 4. Other insurance-related investments are accounted for at fair value, and we recognise changes in value in profit or loss. For physical gas, the fair value is reduced by estimated costs to sell.

Net insurance-related investment result

The net result from insurance-related investments comprises regular income, income from write-ups, gains and losses on the disposal of insurance-related investments, other income, write-downs of insurance-related investments, management expenses, interest charges and other expenses.

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 thus recognised as an expense. If, in a subsequent period, the reasons for the impairment cease to apply, the impairment is reversed, with impact on the income statement. The resultant carrying amount may not exceed the original amortised cost.

Current tax receivables comprise current taxes on income of the individual companies, including any interest on taxes, based on their respective national taxation. Other tax receivables are shown under “other receivables”.

F Cash at banks, cheques and cash in hand

Cash and cheques are accounted for at face value.

G Deferred acquisition costs

Deferred acquisition costs comprise commissions and other variable costs directly connected with acquisition or renewal of insurance contracts. In accordance with IFRS 4, we do not use shadow accounting for deferred acquisition costs in life primary insurance. In life business and long-term health primary insurance, acquisition costs are recognised and amortised over the duration of the contracts. In determining the amount of amortisation, we take into account an actuarial interest rate and changes resulting from the disposal or withdrawal of contracts from the portfolio. In property-casualty business, short-term health primary insurance and health reinsurance, the deferred acquisition costs are amortised on a straight-line basis over the average term of the policies, from one to five years.

H Deferred tax assets

Deferred tax assets must be recognised in cases where asset items have to be valued lower, or liability items higher, in the consolidated balance sheet than in the tax accounts of the Group company concerned and these differences will be eliminated at a later date with a corresponding effect on taxable income (temporary differences). Also included are tax assets deriving from tax loss carry-forwards. Deferred tax assets are recognised to the extent that, on the basis of tax result planning, it is sufficiently probable that they will be utilised. As a rule, a five-year forecast period is considered. We take into account the tax rates of the countries concerned and the consolidated company’s respective tax situation; in some cases, for purposes of simplification, we use uniform tax rates for individual circumstances or subsidiaries. Changes in tax rates and tax legislation that have already been adopted by the government at the balance sheet date are taken into account.

I Other assets

Other assets are generally recognised at amortised cost. Amortisations mainly occur on a straight-line basis, the underlying useful lives amounting to up to 55 years. Where required, impairment losses are recognised or reversed for the Group’s owner-occupied property, plant and equipment. These impairment losses or impairment losses reversed are distributed between the functional areas.

J Assets held for sale

Assets held for sale are assets that can be sold in their current condition and whose sale is highly probable. The item may comprise individual assets or groups of assets, including the matching liabilities. We account for assets held for sale at fair value less sales cost, provided the fair value is lower than the carrying amount. They are no longer depreciated. Measurement of financial instruments remains unchanged; the only difference is how they are disclosed.

Equity and liabilities

A Equity

The item **issued capital and capital reserve** contains the amounts that the equity holders of Munich Reinsurance Company have paid in on shares. The issued capital comprises the subscribed capital less the accounting value of own shares held by Munich Reinsurance Company at the balance sheet date. The capital reserve contains gains from the sale of own shares by Munich Reinsurance Company.

Under **retained earnings**, we show the profits which consolidated companies have earned and retained since becoming part of Munich Re, and income and expenses resulting from changes in the consolidated group. In addition, the adjustment amount resulting from changes in accounting policies for earlier periods not included in the consolidated financial statements is recognised in the opening balance of the retained earnings for the earliest prior period reported. Retained earnings also include the effects from remeasurement of defined benefit plans. Own shares held by Munich Re subsidiaries at the balance sheet date have been deducted directly from retained earnings.

Other reserves primarily contain unrealised gains and losses resulting from the recognition of other securities available for sale at fair value and from investments in unconsolidated affiliated companies, and in associates and joint ventures that we do not value at equity. These reserves also include unrealised gains and losses from the measurement of associates and joint ventures using the equity method, differences resulting from the currency translation of foreign subsidiaries' figures, and remeasurement gains/losses from the hedging of cash flows.

B Subordinated liabilities

Subordinated liabilities are liabilities which, in the event of liquidation or insolvency, are only satisfied after the claims of other creditors. They are measured at amortised cost in accordance with the effective interest method.

C Gross technical provisions

The technical provisions are shown as gross figures in the balance sheet, i.e. before deduction of the ceded share; see the explanatory remarks on Assets – D Ceded share of technical provisions. The ceded share is calculated and accounted for on the basis of the individual reinsurance agreements. Acquisition costs for insurance contracts are recognised and amortised over the terms of the contracts; see note Assets – G Deferred acquisition costs. The measurement of technical provisions is based on US GAAP FAS 60 (life primary insurance without performance-related participation in surplus, health primary insurance and the bulk of reinsurance treaties), FAS 97 (life primary insurance based on the universal life model, unit-linked life insurance and life reinsurance for assumed business based on FAS 97) and FAS 120 (life primary insurance with performance-related participation in surplus). Credit insurance contracts are accounted for in accordance with the rules of IFRS 4.

Unearned premiums are accrued premiums already written for future risk periods. For primary insurance, these premiums are calculated separately for each insurance policy pro rata temporis; for reinsurance, nominal percentages are used in some cases where the data for a calculation pro rata temporis is not available. The posting of unearned premiums is restricted to short-term underwriting business; i.e. property-casualty business and parts of accident and health business. In the case of long-term business, a provision for future policy benefits is established.

The **provision for future policy benefits** in long-term underwriting business is posted for the actuarially calculated value of obligations arising from policyholders' guaranteed entitlements. As well as life insurance, this concerns portions of health and personal accident insurance, insofar as the business is conducted like life insurance. Measurement is usually based on the prospective method, by determining the difference between the present values of future benefits and future premiums. The actuarial assumptions used for their calculation include, in particular, assumptions relating to mortality, disability and morbidity, as well as assumptions regarding interest-rate development, lapses and costs. These are estimated on a realistic basis at the time the insurance contracts are concluded, and they include adequate provision for adverse deviation to make allowance for the risks of change, error and random fluctuations.

In reinsurance, measurement is carried out partly individually for each risk and partly collectively for reinsured portfolios, using biometric actuarial assumptions based on the tables of the national actuarial associations. These are adjusted for the respective reinsured portfolio, in line with the probabilities observed for the occurrence of an insured event. Discount rates are chosen that reflect the best estimate of expected investment income, less a safety margin. For the major part of the portfolio, these assumptions are fixed at the beginning of the contract and not changed over its duration.

In primary insurance, measurement is generally carried out individually for each risk. For 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). Future payment obligations are generally not discounted; exceptions are some provisions for occupational disability pensions and annuities in workers' compensation and other lines of property-casualty business. For determining the provision for outstanding claims, Munich Re uses a range of actuarial projection methods. Where ranges have been calculated, a realistic estimated value for the ultimate loss is determined within these. In applying the statistical methods, we regard large exposures separately.

Other technical provisions mainly include the provision for premium refunds in primary insurance and the provision for profit commission in reinsurance. The former is posted in life and health primary insurance for obligations involving policyholder bonuses and rebates that have not yet been irrevocably allocated to individual contracts at the balance sheet date. These provisions are posted on the basis of national regulations only for German primary insurance business; a retrospective approach is usually taken based on supervisory or individual 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 Notes to the consolidated balance sheet – Assets (2) Other intangible assets, Assets (13) Deferred acquisition costs, and Equity and liabilities (21) Provision for future policy benefits. The appropriateness of unearned premiums and of the provision for outstanding claims is assessed in relation to the realistically estimated future amount to be paid. The appropriateness of the provision for future policy benefits is assessed on the basis of realistic estimates of the actuarial assumptions, the proportional investment result and, for contracts with participation in surplus, the 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, using the projected unit credit method. The calculation includes not only the pension entitlements and current pensions known on the balance sheet date but also their expected future development. The assumptions for the future development are determined on the basis of the circumstances in the individual countries.

The discount rate applied to the pension obligations is based on the yields for long-term high-quality bonds (e.g. corporate or government bonds).

The **miscellaneous provisions** included in this item are established in the amount of the probable requirement. Such amounts are not discounted if the interest-rate effect is insignificant.

F Liabilities

This item comprises bonds and notes issued, deposits retained on ceded business, current tax liabilities, and other liabilities. Financial liabilities are generally recognised at amortised cost. Derivative financial instruments are recognised at fair value. Details of how the fair value is determined are provided under Assets – B Investments – Determining fair values.

Current tax liabilities comprise current taxes on income and interest on back tax of the individual companies, based on their respective national taxation. Other tax liabilities are shown under "other liabilities".

Tax liabilities for current taxes are posted – without discounting – in accordance with the probable tax payments for the financial year or previous years.

G Deferred tax liabilities

Deferred tax liabilities must be recognised if asset items have to be valued higher, or liabilities items lower, in the consolidated balance sheet than in the tax accounts of the reporting company, and these differences will be eliminated at a later date with a corresponding impact on taxable income (temporary differences); see Assets – H Deferred tax assets.

H Liabilities related to assets held for sale

Liabilities to be transferred together with disposal groups are recognised in this item; please see Assets – J Assets held for sale.

Foreign currency translation

Munich Re's presentation currency is the euro (€). The assets of foreign subsidiaries whose national currency is not the euro are 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 (reserve for currency translation adjustments). ↗

In contrast to this, currency translation differences are largely recognised in profit or loss in our subsidiaries' individual financial statements, and shown under "other non-operating result".

The following table shows the exchange rates of the most important currencies for our business:

Currency translation rates

	Balance sheet		Income statement				Income statement			
Rate for €1	31.12.2016	Prev. year	Q4 2016	Q3 2016	Q2 2016	Q1 2016	Q4 2015	Q3 2015	Q2 2015	Q1 2015
Australian dollar	1.45660	1.49305	1.43939	1.47166	1.51527	1.52774	1.52055	1.53378	1.42290	1.43196
Canadian dollar	1.41445	1.50895	1.43878	1.45589	1.45566	1.51388	1.46278	1.45470	1.36072	1.39583
Pound sterling	0.85360	0.73705	0.86846	0.85033	0.78726	0.77068	0.72212	0.71792	0.72197	0.74388
Rand	14.42370	16.83280	15.00490	15.68870	16.94500	17.43190	15.58000	14.45610	13.37680	13.22830
Swiss franc	1.07200	1.08740	1.07947	1.08880	1.09579	1.09551	1.08473	1.07280	1.04134	1.07446
US dollar	1.05475	1.08630	1.07841	1.11618	1.12926	1.10273	1.09507	1.11170	1.10638	1.12680
Yen	123.0210	130.6760	117.9520	114.2350	121.8700	127.0080	132.9340	135.7950	134.3250	134.2600
Yuan Renminbi	7.32995	7.05395	7.36356	7.44063	7.37878	7.21238	7.00062	7.00853	6.86395	7.02658

Segment reporting

Based on the way Munich Re is managed internally, we have identified six segments to be reported:

- Life reinsurance (global life reinsurance business)
- Property-casualty reinsurance (global property-casualty reinsurance business)
- ERGO Life and Health Germany (German life and health primary insurance business, German property-casualty direct insurance business, and global travel insurance business)
- ERGO Property-casualty Germany (German property-casualty insurance business, excluding direct business)
- ERGO International (ERGO primary insurance business outside Germany)
- Munich Health (global health reinsurance business and health 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, impairment losses of goodwill and net finance costs” for the segments concerned. These are otherwise shown after elimination of intra-Group transactions and shareholdings.

Segment assets[1] » Segment assets (XLS, 48 KB)

€m	Reinsurance Life 31.12.2016	Prev. year	Property-casualty 31.12.2016	Prev. year
A. Intangible assets	**145**	**156**	**2,550**	**2,282**
B. Investments				
I. Land and buildings, including buildings on third-party land	278	281	1,683	1,699
II. Investments in affiliated companies, associates and joint ventures	36	7	735	667
Thereof: Associates and joint ventures accounted for using the equity method	29	0	701	635
III. Loans	119	73	629	305
IV. Other securities				
1. Available for sale	19,202	18,806	57,889	56,781
2. At fair value through profit or loss	52	59	340	340
	19,254	18,865	58,229	57,121
V. Deposits retained on assumed reinsurance	3,334	5,546	1,436	1,341
VI. Other investments	395	462	1,704	1,876
	23,415	**25,233**	**64,416**	**63,010**
C. Insurance-related investments	**957**	**846**	**148**	**75**
D. Ceded share of technical provisions	**824**	**1,489**	**2,004**	**2,031**
E. Assets held for sale	**0**	**0**	**0**	**0**
F. Other segment assets	**7,792**	**5,907**	**8,770**	**8,693**
Total segment assets	**33,132**	**33,631**	**77,888**	**76,091**

1 Previous year's figures adjusted owing to IAS 8; see "Changes in accounting policies and other adjustments".

Segment equity and liabilities[1] » Segment equity and liabilities (XLS, 48 KB)

€m	Reinsurance Life 31.12.2016	Prev. year	Property-casualty 31.12.2016	Prev. year
A. Subordinated liabilities	**954**	**1,143**	**3,198**	**3,221**
B. Gross technical provisions				
I. Unearned premiums	19	21	6,265	6,238
II. Provision for future policy benefits	11,206	12,924	26	26
III. Provision for outstanding claims	8,042	7,376	42,355	42,060
IV. Other technical provisions	212	229	243	26
	19,479	**20,549**	**48,888**	**48,350**
C. Gross technical provisions for unit-linked life insurance contracts	**0**	**0**	**0**	**0**
D. Other provisions	**175**	**169**	**674**	**601**
E. Liabilities related to assets held for sale	**0**	**0**	**0**	**0**
F. Other segment liabilities	**6,606**	**6,033**	**7,949**	**7,602**
Total segment liabilities	**27,215**	**27,895**	**60,709**	**59,775**

1 Previous year's figures adjusted owing to IAS 8; see "Changes in accounting policies and other adjustments".

	Life and Health Germany		Property-casualty Germany		ERGO International		Munich Health		Total	
	31.12. 2016	Prev. year	31.12. 2016	Prev. year	31.12. 2016	Prev. year	31.12. 2016	Prev. year	31.12. 2016	Prev. year
	206	**221**	**963**	**979**	**240**	**312**	**16**	**12**	**4,120**	**3,961**
	2,200	2,081	154	155	110	93	20	9	4,444	4,317
	299	261	54	54	420	173	168	116	1,711	1,278
	262	226	23	22	389	137	161	105	1,565	1,125
	51,392	51,504	1,369	1,458	150	150	32	27	53,691	53,516
	49,726	46,527	4,515	4,702	12,566	11,268	3,945	3,459	147,843	141,543
	1,710	1,519	21	63	542	531	7	39	2,672	2,551
	51,436	48,046	4,536	4,765	13,108	11,799	3,952	3,498	150,515	144,094
	34	31	21	5	0	0	415	331	5,240	7,253
	1,135	1,537	314	354	185	317	81	89	3,814	4,635
	106,495	**103,461**	**6,448**	**6,790**	**13,974**	**12,530**	**4,667**	**4,069**	**219,416**	**215,093**
	4,951	**4,753**	**0**	**0**	**3,502**	**3,488**	**1**	**1**	**9,558**	**9,163**
	17	**19**	**128**	**103**	**587**	**522**	**109**	**164**	**3,669**	**4,327**
	0	**0**	**0**	**0**	**0**	**6,947**	**0**	**0**	**0**	**6,947**
	8,041	**8,374**	**1,421**	**1,494**	**3,311**	**3,101**	**1,708**	**1,807**	**31,042**	**29,377**
	119,709	**116,828**	**8,960**	**9,365**	**21,615**	**26,900**	**6,500**	**6,052**	**267,805**	**268,868**

	Life and Health Germany		Property-casualty Germany		ERGO International		Munich Health		Total	
	31.12. 2016	Prev. year	31.12. 2016	Prev. year	31.12. 2016	Prev. year	31.12. 2016	Prev. year	31.12. 2016	Prev. year
	0	**0**	**0**	**0**	**25**	**25**	**41**	**26**	**4,218**	**4,416**
	204	198	465	495	1,568	1,446	462	444	8,984	8,841
	86,676	85,867	440	429	8,564	8,209	1,196	1,118	108,108	108,572
	2,841	2,792	4,254	4,080	2,412	2,233	1,458	1,215	61,362	59,756
	17,749	16,333	96	99	583	538	143	188	19,026	17,413
	107,471	**105,190**	**5,255**	**5,102**	**13,127**	**12,426**	**3,259**	**2,965**	**197,480**	**194,582**
	5,341	**5,157**	**0**	**0**	**3,088**	**3,044**	**1**	**1**	**8,429**	**8,201**
	1,920	**1,727**	**983**	**682**	**1,048**	**811**	**95**	**153**	**4,895**	**4,145**
	0	**0**	**0**	**0**	**0**	**6,301**	**0**	**0**	**0**	**6,301**
	3,542	**3,728**	**449**	**285**	**1,299**	**1,447**	**1,154**	**1,162**	**20,998**	**20,257**
	118,273	**115,802**	**6,687**	**6,070**	**18,586**	**24,054**	**4,550**	**4,307**	**236,020**	**237,902**
						Equity			**31,785**	**30,966**
						Total equity and liabilities			**267,805**	**268,868**

Segment income statement[1] » Segment income statement (XLS, 47 KB)

	Reinsurance			
	Life		Property-casualty	
€m	2016	Prev. year	2016	Prev. year
Gross premiums written	**10,001**	**10,536**	**17,826**	**17,680**
1. Net earned premiums	9,675	9,979	16,946	16,884
2. Income from technical interest	574	749	1,138	1,373
3. Net expenses for claims and benefits	-7,669	-8,025	-10,730	-9,631
4. Net operating expenses	-2,093	-2,367	-5,496	-5,510
5. Technical result (1–4)	**487**	**335**	**1,859**	**3,116**
6. Investment result	629	898	1,589	2,046
7. Insurance-related investment result	-8	-43	103	-74
8. Other operating result	28	59	-129	-73
9. Deduction of income from technical interest	-574	-749	-1,138	-1,373
10. Non-technical result (6–9)	**75**	**165**	**425**	**525**
11. Operating result	**562**	**500**	**2,284**	**3,641**
12. Other non-operating result, net finance costs and impairment losses on goodwill	81	-98	293	-299
13. Taxes on income	-185	-57	-551	-427
14. Consolidated result	**459**	**345**	**2,025**	**2,915**

1 Previous year's figures adjusted owing to IAS 8; see "Changes in accounting policies and other adjustments".

Other segment disclosures

	Reinsurance			
	Life		Property-casualty	
€m	2016	Prev. year	2016	Prev. year
Interest income	651	880	1,173	1,264
Interest expense	-14	-16	-14	-31
Depreciation and amortisation	-272	-333	-2,285	-1,545
Write-ups	6	10	15	34
Other operating income	111	139	246	312
Other operating expenses	-84	-80	-374	-385
Income from associates and joint ventures accounted for using the equity method	0	0	73	287
Non-cash items	-446	-273	1,481	1,200

	ERGO						Munich Health		Total	
	Life and Health Germany		Property-casualty Germany		International					
	2016	Prev. year	2016	Prev. year	2016	Prev. year	2016	Prev. year	2016	Prev. year
	9,177	**9,426**	**3,194**	**3,162**	**3,664**	**3,947**	**4,990**	**5,623**	**48,851**	**50,374**
	9,146	9,382	3,158	3,059	3,300	3,581	4,893	5,423	47,118	48,309
	4,242	4,013	73	87	432	452	30	39	6,490	6,713
	–11,633	–11,654	–1,985	–2,009	–2,470	–2,811	–4,011	–4,601	–38,498	–38,731
	–1,384	–1,449	–1,108	–1,015	–1,394	–1,189	–820	–838	–12,295	–12,367
	370	**293**	**139**	**122**	**–132**	**33**	**92**	**24**	**2,815**	**3,924**
	4,415	3,841	80	187	734	447	120	118	7,567	7,536
	126	202	0	0	105	55	0	0	326	140
	–43	–11	–17	–3	–24	–15	–9	–24	–194	–68
	–4,242	–4,013	–73	–87	–432	–452	–30	–39	–6,490	–6,713
	257	**18**	**–11**	**97**	**383**	**35**	**81**	**56**	**1,210**	**896**
	627	311	128	219	251	68	173	80	4,025	4,819
	–475	–631	–242	–64	–345	–129	4	–1	–684	–1,222
	–39	–9	42	60	13	–52	–40	9	–760	–476
	114	–329	–72	214	–82	–112	137	88	2,581	3,122

	ERGO						Munich Health		Total	
	Life and Health		Property-casualty		International					
	2016	Prev. year	2016	Prev. year	2016	Prev. year	2016	Prev. year	2016	Prev. year
	3,154	3,313	100	130	381	477	80	79	5,538	6,143
	–46	–38	–10	–10	–12	–10	–4	–6	–100	–110
	–581	–539	–238	–199	–403	–351	–230	–209	–4,008	–3,177
	36	29	3	1	6	9	1	2	68	85
	129	136	83	88	137	149	39	49	744	873
	–172	–147	–100	–91	–161	–165	–48	–73	–938	–941
	25	73	2	2	6	–1	15	14	121	375
	–1,569	–1,722	–13	–86	–76	–107	–134	–157	–190	–1,143

Notes on determining the combined ratio[1]

	Reinsurance		ERGO				Munich Health[2]	
	Property-casualty		Property-casualty Germany		Property-casualty International			
€m	2016	Prev. year	2016	Prev. year	2016	Prev. year	2016	Prev. year
Net earned premiums	16,946	16,884	3,158	3,059	2,169	2,103	4,370	4,918
Net expenses for claims and benefits	-10,730	-9,631	-1,985	-2,009	-1,289	-1,379	-3,577	-4,157
Net operating expenses	-5,496	-5,510	-1,108	-1,015	-866	-828	-728	-755
Loss-ratio calculation adjustments	5	4	30	28	7	5	1	0
Fire brigade tax and other expenses	12	11	13	13	23	15	1	0
Expenses for premium refunds[3]	0	0	21	17	3	1	0	0
Other underwriting income	-7	-7	-5	-5	-20	-14	0	0
Change in remaining technical provisions and other underwriting expenses[3]	0	0	0	4	1	2	0	0
Adjusted net expenses for claims and benefits	**-10,725**	**-9,627**	**-1,955**	**-1,981**	**-1,282**	**-1,373**	**-3,576**	**-4,157**
Loss ratio in %	63.3	57.0	61.9	64.7	59.1	65.3	81.8	84.5
Combined ratio in %	95.7	89.7	97.0	97.9	99.0	104.7	98.5	99.9

1 Information on the combined ratio is provided in the management report under “Important tools of corporate management”.
2 Excluding health insurance conducted like life insurance.
3 Adjustment only for ERGO Property-casualty Germany and Property-casualty International.

Non-current assets by country[1]

€m	31.12.2016	Prev. year
Germany	6,900	6,921
USA	2,811	2,743
UK	438	531
Malta	278	0
Sweden	256	266
Austria	223	215
France	198	175
Poland	190	201
Italy	176	190
Netherlands	132	165
Switzerland	100	100
Spain	97	102
Portugal	58	58
Greece	55	25
Others	227	217
Total	**12,140**	**11,910**

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	2016	Prev. year
Life reinsurance	332	55
Property-casualty reinsurance	570	637
ERGO Life and Health Germany	251	151
ERGO Property-casualty Germany	46	87
ERGO International	159	71
Munich Health	17	16
Total	**1,375**	**1,017**

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]

€m	2016	Total Prev. year
Europe		
Germany	12,904	13,182
UK	5,037	5,183
Spain	1,339	1,226
Poland	1,197	1,293
Belgium	881	881
Others	4,423	4,582
	25,780	26,348
North America		
USA	9,913	9,975
Canada	5,421	6,773
	15,334	16,747
Asia and Australasia		
China	1,675	1,555
Australia	1,584	1,532
Japan	622	542
South Korea	313	342
Others	786	774
	4,979	4,745
Africa, Middle East		
United Arab Emirates	490	426
South Africa	380	368
Others	508	506
	1,379	1,300
Latin America	1,378	1,234
Total	**48,851**	**50,374**

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	2016	Prev. year
Gross carrying amount at 31 Dec. previous year	4,303	4,124
Accumulated impairment losses at 31 Dec. previous year	-1,513	-1,061
Carrying amount at 31 Dec. previous year	2,790	3,063
Currency translation differences	45	179
Additions	9	0
Reclassifications	0	0
Impairment losses	-28	-452
Carrying amount at 31 Dec. financial year	**2,817**	**2,790**
Accumulated impairment losses at 31 Dec. financial year	-1,541	-1,513
Gross carrying amount at 31 Dec. financial year	4,358	4,303

Allocation of goodwill to cash-generating units

For impairment testing, the goodwill is allocated to the cash-generating units or groups of cash-generating units that derive benefit from the synergies of the business combinations. At the same time, the unit or group of units 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 or groups of divisions, and in primary insurance to the ERGO segment Property-casualty Germany, and to legal entities. ↗

Allocation of goodwill to cash-generating units

€m	Property-casualty reinsurance segment	ERGO Property-casualty Germany segment	Various cash-generating units
Goodwill at 31 December 2016	**1,791**	**910**	**116**

The goodwill from the acquisition of Munich Reinsurance America, Inc. has been allocated to a group of divisions (cash-generating units) bundled as the reinsurance property-casualty segment. The carrying amount shown also includes other goodwill that is impairment-tested on the basis of cash-generating units at the level of divisions or groups of divisions within the segment. This other goodwill is tested for impairment on the basis of the same key assumptions used for the goodwill from the acquisition of Munich Reinsurance America, Inc.

The goodwill from the acquisition of shares in the ERGO Group was allocated to the segments of the ERGO field of business. The shares allocated to the segments ERGO Life and Health Germany and ERGO International was written off for impairment in previous years.

Goodwill allocated across multiple cash-generating units or groups of cash-generating units is not significant in comparison with the total goodwill, either individually or in total. We regard amounts of 10% or more of total Group goodwill as significant.

Significant assumptions for determining the recoverable amount in impairment testing

Impairment tests for cash-generating units to which a significant portion of the goodwill is allocated are based on the assumptions shown below.

Cash-generating unit or group of cash-generating units	Property-casualty reinsurance segment	ERGO Property-casualty Germany segment
Basis for calculating the recoverable amount	Value in use	Value in use
Key assumptions regarding the planning calculation (at the time of planning)	In the detailed planning phase (three years), we expected largely constant premium income with a higher combined ratio. Our general assumption was that there will be moderate upward movement on the equity markets and a stable interest-rate level.	For the detailed planning phase (four years), we expected a slight rise in premium income with an improved combined ratio. Our general assumption was that there will be moderate upward movement on the equity markets and a stable interest-rate level.
Growth rates after the detailed planning phase	1.5%	0.5%
Discount rates	7.8%	8.9%

The calculation of these values in use is based on distributable target results derived from the current market environment and the latest corporate planning approved by management. Prepared in an interactive process involving the operational units, the responsible controlling units and the Board of Management, the corporate plans are reviewed and updated at least every quarter. The aforementioned key assumptions regarding premium income development and combined ratios derive from the aggregation of the company plans of the individual companies of a cash-generating unit, or of a group of cash-generating units. The key assumptions regarding developments in the equity market and interest-rate level are defined on the basis of the current market environment. After the detailed planning phase, we estimate the target results achievable long term on the basis of the last adjusted planning year and taking into account growth rates and RoI derived from macroeconomic forecasts.

Cost-of-equity rates derived using the Capital Asset Pricing Model (CAPM) were used as discount rates. Calculations were made after consideration of normalised taxes. In the table, for disclosure purposes, a corresponding discount rate before tax is given in each case. Sensitivity analyses were performed for the discount rates, growth rates and distributable target results. No impairments have been identified.

2 Other intangible assets

Development of other intangible assets

	Acquired insurance portfolios		Software			
			Internally developed		Other	
€m	2016	Prev. year	2016	Prev. year	2016	Prev. year
Gross carrying amount at 31 Dec. previous year	1,329	1,320	388	367	1,106	1,049
Accumulated amortisation and impairment losses at 31 Dec. previous year	-1,035	-1,002	-326	-285	-811	-770
Carrying amount at 31 Dec. previous year	294	318	62	82	295	279
Currency translation differences	8	7	0	1	0	7
Additions						
Business combinations	274	0	1	0	3	0
Other	0	2	18	20	96	95
Disposals						
Loss of control	0	-1	0	0	-1	-1
Other	0	0	-3	-3	-14	-3
Reclassifications	0	0	0	0	0	-1
Impairment losses reversed	0	0	0	0	0	0
Amortisation and impairment losses						
Amortisation	-39	-31	-34	-39	-83	-81
Impairment losses	0	0	-2	0	-9	0
Carrying amount at 31 Dec. financial year	**536**	**294**	**42**	**62**	**288**	**295**
Accumulated amortisation and impairment losses at 31 Dec. financial year	-798	-1,035	-363	-326	-898	-811
Gross carrying amount at 31 Dec. financial year	1,334	1,329	405	388	1,186	1,106

Continued on next page

€m	Acquired brand names 2016	Acquired brand names Prev. year	Acquired distribution networks/client bases 2016	Acquired distribution networks/client bases Prev. year	Acquired licences/ patents 2016	Acquired licences/ patents Prev. year
Gross carrying amount at 31 Dec. previous year	234	232	726	680	318	300
Accumulated amortisation and impairment losses at 31 Dec. previous year	–196	–196	–534	–468	–60	–47
Carrying amount at 31 Dec. previous year	38	36	192	212	258	253
Currency translation differences	1	4	3	17	–17	10
Additions						
Business combinations	1	0	9	2	1	6
Other	0	0	2	1	0	0
Disposals						
Loss of control	0	0	0	0	0	0
Other	0	0	0	0	0	0
Reclassifications	0	0	0	0	0	0
Impairment losses reversed	0	0	0	0	0	2
Amortisation and impairment losses						
Amortisation	–2	–2	–25	–27	–13	–14
Impairment losses	–2	0	–24	–12	–7	0
Carrying amount at 31 Dec. financial year	**36**	**38**	**158**	**192**	**222**	**258**
Accumulated amortisation and impairment losses at 31 Dec. financial year	–199	–196	–576	–534	–76	–60
Gross carrying amount at 31 Dec. financial year	235	234	733	726	298	318

	Miscellaneous				Total	
	Internally developed		Other			
€m	2016	Prev. year	2016	Prev. year	2016	Prev. year
Gross carrying amount at 31 Dec. previous year	0	0	88	87	4,189	4,037
Accumulated amortisation and impairment losses at 31 Dec. previous year	0	0	–55	–47	–3,018	–2,817
Carrying amount at 31 Dec. previous year	0	0	33	40	1,171	1,220
Currency translation differences	0	0	–1	1	–6	47
Additions						
Business combinations	0	0	0	0	289	8
Other	0	0	1	0	117	118
Disposals						
Loss of control	0	0	0	0	–1	–1
Other	0	0	0	0	–17	–6
Reclassifications	0	0	0	0	0	–1
Impairment losses reversed	0	0	0	0	0	2
Amortisation and impairment losses						
Amortisation	0	0	–6	–7	–202	–201
Impairment losses	0	0	–6	–2	–49	–15
Carrying amount at 31 Dec. financial year	**0**	**0**	**21**	**33**	**1,303**	**1,171**
Accumulated amortisation and impairment losses at 31 Dec. financial year	0	0	–64	–55	–2,974	–3,018
Gross carrying amount at 31 Dec. financial year	0	0	85	88	4,277	4,189

Assets pledged as security and other restrictions on title amount to €127m (156m).

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

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

€m	2016	Prev. year
Gross carrying amount at 31 Dec. previous year	5,538	4,929
Accumulated depreciation and impairment losses at 31 Dec. previous year	-1,220	-1,197
Carrying amount at 31 Dec. previous year	4,317	3,732
Currency translation differences	5	11
Additions		
Subsequent acquisition costs	38	24
Business combinations	0	455
Other	234	184
Disposals		
Loss of control	0	0
Other	-113	-38
Impairment losses reversed	49	48
Depreciation and impairment losses		
Depreciation	-90	-80
Impairment losses	-9	-30
Reclassifications	12	11
Carrying amount at 31 Dec. financial year	**4,444**	**4,317**
Accumulated depreciation and impairment losses at 31 Dec. financial year	-1,224	-1,220
Gross carrying amount at 31 Dec. financial year	5,668	5,538

The fair value of investment property at the balance sheet date amounted to €6,857m (6,590m). 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 1.75% to 4.25% are used for residential buildings, 3% to 6.5% for office buildings, and 3% to 6.75% for retail.

Property pledged as security and other restrictions on title amount to €853m (730m). Contractual commitments to acquire property amount to €46m (33m).

4 Hierarchy for the fair value measurement of investments

All investments recognised at fair value are allocated to one of the fair value hierarchy levels of IFRS 13, as are those investments 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 investments 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.

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 financial instruments

Bonds	Pricing method	Parameters	Pricing model
Interest-rate risks			
Loans against borrower's note/ registered bonds	Theoretical price	Sector-, rating- or issuer-specific yield curve	Present-value method
Cat bond (host)	Theoretical price	Interest-rate curve	Present-value method
Mortgage loans	Theoretical price	Sector-specific yield curve	Present-value method

Derivatives	Pricing method	Parameters	Pricing model
Equity and index risks			
OTC stock options	Theoretical price	Listing of underlying shares Effective volatilities Money-market interest rate Dividend yield	Black-Scholes (European) Cox, Ross and Rubinstein (American) Monte Carlo simulation
Equity forwards	Theoretical price	Listing of underlying shares Money-market interest rate Dividend yield	Present-value method
Interest-rate risks			
Interest-rate swaps	Theoretical price	OIS/swap curve	Present-value method
Swaptions/interest-rate guarantee	Theoretical price	At-the-money volatility index and skew OIS/skew swap curve	Bachelier/ Normal Black
Interest-rate currency swaps	Theoretical price	Swap curve Currency spot rates Money-market interest-rate curve	Present-value method
Inflation swaps	Theoretical price	Zero-coupon inflation swap rates OIS curve	Present-value method
Bond forwards (forward transactions)	Theoretical price	Listing of underlying Swap curve	Present-value method
Currency risks			
Currency options	Theoretical price	Volatility skew Currency spot rates Money-market interest-rate curve	Garman-Kohlhagen (European)
Currency forwards	Theoretical price	Currency spot rates Money-market interest-rate curve, CCY spreads	Present-value method
Other transactions			
Insurance derivatives (excluding variable annuities)	Theoretical price	Fair values of cat bonds Historical event data Interest-rate curve	Present-value method
Insurance derivatives (variable annuities)	Theoretical price	Biometric and lapse rates Volatilities Interest-rate curve Currency spot rates	Present-value method
Catastrophe swaps	Theoretical price	Fair values of catastrophe bonds Interest-rate curve	Present-value method
Credit default swaps	Theoretical price	Credit spreads Recovery rates Interest-rate curve	Present-value method ISDA CDS Standard Model
Total return swaps on commodities	Theoretical price	Listing of underlying index	Index ratio calculation
Commodity options	Theoretical price	Listing of underlying Effective volatilities Money-market interest rate	Black-Scholes (European) Cox, Ross and Rubinstein (American)

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

Funds	Pricing method	Parameters	Pricing model
Real estate funds	–	–	Net asset value
Alternative investment funds (e.g. private equity, infrastructure, forestry)	–	–	Net asset value

Other	Pricing method	Parameters	Pricing model
Real estate	Theoretical market price	Interest-rate curve Market rents	Present-value method or valuation
Alternative direct investments (e.g. infrastructure, forestry)	Theoretical market price	Interest-rate curve (among others) Electricity price forecast and inflation forecast	Present-value method or valuation
Bank borrowing	Theoretical market price	Interest-rate curve	Present-value method

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

The inputs requiring consideration in measuring variable annuities are derived either directly from market data (in particular volatilities, interest-rate curves and currency spot rates) or from actuarial data (especially biometric and lapse rates). The lapse rates used are modelled dynamically and range between 0.5% and 50%, depending on the specific insurance product and current situation of the capital markets. A 10% increase or decrease in the lapse rates would lead to a change of –/+1% in the fair value of the portfolio. The assumptions with regard to mortality are based on published mortality tables, which are adjusted with a view to the target markets and the actuaries' expectations. The impact of these and other non-observable assumptions is not material. The dependency between different capital market inputs is modelled by correlation matrices. We allocate these products 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) as well as relatively illiquid credit structures (especially commercial mortgage-backed securities and collateralised loan obligations). In the case of external fund units, market quotes are not available on a regular basis; rather, net asset values (NAVs) are provided by the asset managers. With regard to the latter, the quality of the market quotes available from market data providers is insufficient, so we use broker valuations. With these investments, we thus do not perform our own valuations using inputs not based on observable market data. We regularly subject the valuations supplied to plausibility tests on the basis of comparable investments.

At 31 December 2016, around 12% (10%) of the investments measured at fair value were allocated to Level 1 of the fair value hierarchy, 84% (85%) to Level 2 and 4% (4%) to Level 3, as shown in the table below.

Among the associates and joint ventures accounted for using the equity method, there are only two companies for which quoted market prices are available. These prices total €110m (81m) and are allocated to Level 1 of the fair value hierarchy.

In the financial year, we maintained the allocation to the individual levels of the fair value hierarchy unchanged. For the first time in the 2016 financial year, investments for unit-linked life insurance contracts shown under insurance-related investments were subjected to a far more granular allocation of the various types of investment to the individual levels of the fair value hierarchy. This led to significant shifts in allocation. The other, lower transfer amounts relating to Level 3 of the fair value hierarchy are adjustments to our Group requirements.

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

Allocation of investments (including insurance-related investments) to levels of the fair value hierarchy

				31.12.2016
€m	Level 1	Level 2	Level 3	Total
Investments measured at fair value				
Investments in affiliated companies measured at fair value	0	0	138	138
Investments in associates and joint ventures measured at fair value	0	0	8	8
Other securities available for sale				
Fixed-interest	1,287	128,048	2,683	132,018
Non-fixed-interest	11,806	1,206	2,814	15,826
Other securities at fair value through profit or loss				
Held for trading, and hedging derivatives[1]	157	2,180	0	2,337
Designated as at fair value through profit or loss	222	178	2	402
Other investments	0	10	37	47
Insurance-related investments	5,834	3,447	277	9,558
Total	**19,306**	**135,069**	**5,959**	**160,334**
Investments not measured at fair value				
Loans	0	66,257	1,000	67,257
Total	**0**	**66,257**	**1,000**	**67,257**

€m	Level 1	Level 2	Level 3	Prev. year Total
Investments measured at fair value				
Investments in affiliated companies measured at fair value	0	0	145	145
Investments in associates and joint ventures measured at fair value	0	0	8	8
Other securities available for sale				
Fixed-interest	1,167	124,334	2,160	127,661
Non-fixed-interest	10,025	1,054	2,803	13,882
Other securities at fair value through profit or loss				
Held for trading, and hedging derivatives[1]	244	2,090	0	2,335
Designated as at fair value through profit or loss	188	169	0	357
Other investments	0	10	30	40
Insurance-related investments	4,488	3,623	1,052	9,163
Total	**16,112**	**131,281**	**6,198**	**153,591**
Investments not measured at fair value				
Loans	0	65,335	781	66,116
Total	**0**	**65,335**	**781**	**66,116**

1 Including hedging derivatives of €68m (141m) 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	2016	Prev. year	2016	Prev. year
Carrying amount at 31 Dec. previous year	145	274	8	5
Gains and losses	-1	3	0	2
Gains (losses) recognised in the income statement	-5	1	2	0
Gains (losses) recognised in equity	3	3	-2	2
Acquisitions	13	43	3	1
Disposals	-23	-77	-3	-1
Transfer to Level 3	4	10	0	0
Transfer out of Level 3	0	-107	0	0
Changes in the fair value of derivatives	0	0	0	0
Carrying amount at 31 Dec. financial year	**138**	**145**	**8**	**8**
Gains (losses) recognised in the income statement that are attributable to investments shown at the end of the financial year	-7	-1	0	0

	Other securities available for sale			
	Fixed-interest		Non-fixed-interest	
€m	2016	Prev. year	2016	Prev. year
Carrying amount at 31 Dec. previous year	2,160	2,547	2,803	2,395
Gains and losses	77	104	-1	182
Gains (losses) recognised in the income statement	38	-4	-28	-9
Gains (losses) recognised in equity	39	108	27	191
Acquisitions	1,002	958	425	517
Disposals	-577	-1,447	-400	-251
Transfer to Level 3	68	0	14	3
Transfer out of Level 3	-47	-2	-27	-43
Changes in the fair value of derivatives	0	-1	0	0
Carrying amount at 31 Dec. financial year	**2,683**	**2,160**	**2,814**	**2,803**
Gains (losses) recognised in the income statement that are attributable to investments shown at the end of the financial year	39	-4	-35	-11

Continued on next page

€m	Designated as at fair value through profit or loss 2016	Designated as at fair value through profit or loss Prev. year	Other investments 2016	Other investments Prev. year
Carrying amount at 31 Dec. previous year	0	0	30	0
Gains and losses	0	0	7	0
Gains (losses) recognised in the income statement	0	0	7	0
Gains (losses) recognised in equity	0	0	0	0
Acquisitions	2	0	0	30
Disposals	0	0	0	0
Transfer to Level 3	1	0	0	0
Transfer out of Level 3	-1	0	0	0
Change in the fair value of derivatives	0	0	0	0
Carrying amount at 31 Dec. financial year	**2**	**0**	**37**	**30**
Gains (losses) recognised in the income statement that are attributable to investments shown at the end of the financial year	0	0	7	0

€m	Insurance-related investments 2016	Insurance-related investments Prev. year	Total 2016	Total Prev. year
Carrying amount at 31 Dec. previous year	1,052	109	6,198	5,330
Gains and losses	122	69	204	360
Gains (losses) recognised in the income statement	119	58	134	45
Gains (losses) recognised in equity	3	11	70	315
Acquisitions	59	18	1,505	1,568
Disposals	-71	-34	-1,073	-1,810
Transfer to Level 3	-5	890	82	902
Transfer out of Level 3	-881	0	-956	-153
Changes in the fair value of derivatives	0	0	0	0
Carrying amount at 31 Dec. financial year	**277**	**1,052**	**5,959**	**6,198**
Gains (losses) recognised in the income statement that are attributable to investments shown at the end of the financial year	116	65	121	49

5 Investments in affiliated companies, associates and joint ventures

Reversed impairment losses with respect to associates and joint ventures amounted to €39m (7m). They are distributed between the following different Group segments: €37m (6m) is apportionable to reinsurance and €2m (1m) to ERGO Life and Health Germany.

Impairment losses with respect to these companies amounted to €14m (22m). They are distributed between the following different Group segments: In reinsurance, €14m (11m) is apportionable to property-casualty; in the ERGO field of business, €0m (1m) is apportionable to Life and Health Germany, and €0m (10m) to ERGO International.

Further information about affiliated companies, associates and joint ventures can be found in Other information (47) Contingent liabilities, other financial commitments, (48) Significant restrictions, and in the List of shareholdings as at 31 December 2016 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	31.12.2016	Prev. year
Overall result for the year after tax from continued operations	153	131
Result after tax from discontinued operations	-1	0
Income and expenses recognised directly in equity	-5	7
Total recognised income and expenses	**147**	**138**

6 Loans

Breakdown of loans

	Carrying amounts	
€m	31.12.2016	Prev. year
Mortgage loans	5,606	5,128
Loans and advance payments on insurance policies	297	331
Other loans	47,788	48,057
Total	**53,691**	**53,516**

The other loans mainly comprise covered bonds and government bonds.

The fair value of the loans is based on recognised valuation techniques in line with the present value principle and taking observable market inputs into account; see Notes to the consolidated balance sheet – Assets (4) Hierarchy for the fair value measurement of investments. The fair value totalled €67,282m (66,126m) at the reporting date.

Rating of "other loans" according to carrying amounts

€m	31.12.2016	Prev. year
AAA	25,468	23,854
AA	15,568	17,430
A	3,021	2,996
BBB or lower	2,251	2,704
No rating	1,480	1,073
Total	**47,788**	**48,057**

The rating categories are based on those of the leading international rating agencies. Virtually no credit risk exists in respect of the mortgage loans or the loans and advance payments on insurance policies.

7 Other securities available for sale

Over 40% of the corporate debt securities are covered bonds or issues by development banks and comparable institutions. The remaining portfolio is composed of securities issued by companies outside the banking sector, with each individual risk making up less than 1%, bonds issued by banks and state central savings banks, and asset-backed securities/mortgage-backed securities. The asset-backed securities/mortgage-backed securities are largely rated A or better. Assets pledged as security and other restrictions on title amount to €8,661m (8,115m). Some €1,715m (1,710m) of the securities shown are loaned to third parties. These securities are not derecognised, as the main resultant risks and rewards remain with Munich Re. Of the €11,573m (10,332m) in unrealised gains and losses, €4,309m (4,040m) has been recognised in equity (other reserves), after deduction of provisions for deferred premium refunds, deferred taxes, non-controlling interests, and consolidation und currency translation effects.

Breakdown of other securities available for sale

	Carrying amounts		Unrealised gains/losses		Amortised cost	
€m	31.12.2016	Prev. year	31.12.2016	Prev. year	31.12.2016	Prev. year
Fixed-interest securities						
Government bonds						
Germany	7,815	8,267	1,209	995	6,606	7,272
Rest of EU	26,495	26,337	2,411	2,280	24,084	24,057
USA	18,901	17,753	402	574	18,499	17,179
Other	17,378	16,002	703	799	16,675	15,203
Corporate debt securities	47,251	47,220	2,541	1,972	44,711	45,249
Other	14,178	12,082	1,384	1,267	12,794	10,815
	132,018	**127,661**	**8,649**	**7,886**	**123,369**	**119,775**
Non-fixed-interest securities						
Shares	11,174	9,381	2,327	1,844	8,847	7,537
Investment funds						
Equity funds	552	645	50	57	502	588
Bond funds	1,604	1,360	55	44	1,548	1,317
Real estate funds	566	595	47	58	518	537
Other	1,930	1,901	445	444	1,485	1,457
	15,826	**13,882**	**2,924**	**2,446**	**12,901**	**11,436**
Total	**147,843**	**141,543**	**11,573**	**10,332**	**136,271**	**131,211**

Disposal proceeds in the financial year

€m	2016	Prev. year
Fixed-interest securities	58,408	49,476
Non-fixed-interest securities		
Quoted	23,661	25,272
Unquoted	926	1,209
Total	**82,995**	**75,957**

Realised gains and losses

€m	2016	Prev. year
Gains on disposal	2,993	3,279
Fixed-interest securities	2,070	1,718
Non-fixed-interest securities	923	1,560
Losses on disposal	-897	-848
Fixed-interest securities	-414	-306
Non-fixed-interest securities	-483	-542
Total	**2,096**	**2,431**

Rating of fixed-interest securities according to fair values

€m	31.12.2016	Prev. year
AAA	43,211	41,807
AA	44,953	41,706
A	16,980	16,369
BBB	21,413	21,677
Lower	4,968	5,361
No rating	494	740
Total	**132,018**	**127,661**

The rating categories are based on those of the leading international rating agencies.

8 Other securities at fair value through profit or loss and insurance-related investments

Securities at fair value through profit or loss comprise securities of €2,270m (2,193m) held for trading and securities of €402m (357m) designated as at fair value through profit or loss.

The securities held for trading are made up of fixed-interest securities totalling €18m (30m), non-fixed-interest securities totalling €68m (56m) and derivatives held for trading amounting to €2,184m (2,107m). The securities designated as at fair value through profit or loss comprise €179m (165m) assignable to fixed-interest securities and €223m (193m) to non-fixed interest securities. Some €10m of the securities at fair value through profit or loss is due within one year.

Rating of fixed-interest securities according to fair values

€m	31.12.2016	Prev. year
AAA	15	21
AA	45	44
A	52	59
BBB	85	71
Lower	0	0
No rating	1	0
Total	**197**	**195**

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 €8,428m (8,229m) and other insurance-related investments of €1,130m (934m).

Derivative financial instruments are used by Munich Re to manage and hedge against interest-rate, currency, and other market risks. This is done at the Group companies within the framework of individual supervisory regulations and additional internal company guidelines. Given the daily margining process, the risk of default is practically non-existent in the case of products traded on the stock exchange. Over-the-counter 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 2016, Munich Re held collateral for derivatives in the form of securities with a rating of at least AA. The fair value of this collateral amounts to €785m (1,100m). The collateral received is subject to a title transfer collateral arrangement, but is not re-sold or pledged.

Disclosure of derivatives by balance sheet item

€m			31.12.2016	Prev. year
Fair value	Qualifying for hedge accounting	Balance sheet item		
Positive	No	Investments, other securities, designated as at fair value through profit or loss	2,184	2,107
	No	Insurance-related investments	1,046	899
	Yes	Other assets	68	141
Negative	No Yes	Liabilities, other liabilities	-1,811	-1,819
Total			**1,487**	**1,328**

Although the derivatives used by Munich Re essentially serve to hedge against risks, only an amount of €59m (130m) 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". With Munich Reinsurance Company's hedged subordinated bond, this information is shown under net finance costs. Munich Re uses hedging relationships in the form of fair value hedges to selectively and efficiently mitigate interest-rate and other market risks. The main types of transaction employed for hedging are swaps and forwards. The fair value of the derivatives used for this purpose amounted to €31m (94m) at the ↗ balance sheet date. In the 2016 financial year, the following changes in value were recognised in the consolidated income statement: –€63m for the hedging instruments and +€66m for the relevant underlyings.

Cash flow hedges play a role in countering fluctuations that may be caused, for example, by variable interest payments. Munich Re uses cash flow hedges chiefly to hedge against interest-rate risks, with interest-rate swaps being the main instruments employed. Changes in the fair value of the hedging instrument are recognised directly in equity for this purpose. Only when the actual cash inflow or outflow takes place – as a result of the hedged circumstance – is the relevant equity item reversed with recognition in profit or loss. The change in fair value assignable to the ineffective portion of the hedging was negligible at the reporting date. At the balance sheet date, there is an equity item of –€8m (–1m) from cash flow hedges. The net fair value of the derivatives falling into this category amounted to €28m (36m) at the balance sheet date.

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

€m	< 1 year	1–2 years	2–3 years	3–4 years	4–5 years	> 5 years	31.12.2016	Prev. year
Notional amounts of hedged transactions	64	0	150	100	0	0	314	351

9 Deposits to cedants

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

10 Other investments

Other investments comprise deposits with banks totalling €2,925m (3,775m), tangible assets in renewable energies amounting to €482m (496m), and physical gold of €361m (324m). Deposits with banks include receivables of €117m (202m) from borrowers under repurchase agreements that have been booked by us as the lender.

Of the amounts held on deposit with banks, €2,922m (3,747m) 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 €14m (15m) for deposits with banks.

Development of tangible assets in renewable energies

€m	2016	Prev. year
Gross carrying amount at 31 Dec. previous year	645	589
Accumulated depreciation and impairment losses at 31 Dec. previous year	-148	-119
Carrying amount at 31 Dec. previous year	496	470
Changes due to currency translation	-22	7
Additions		
Business combinations	51	43
Other	8	4
Disposals		
Loss of control	0	0
Other	0	0
Impairment losses reversed	0	7
Depreciation and impairment losses		
Depreciation	-36	-34
Impairment losses	-16	0
Reclassification	0	0
Carrying amount at 31 Dec. financial year	**482**	**496**
Accumulated depreciation and accumulated impairment losses at 31 Dec. financial year	-195	-148
Gross carrying amount at 31 Dec. financial year	676	645

The tangible assets in renewable energies include items pledged as security and other restrictions on title amounting to €206m (235m).

11 Ceded share of technical provisions

Ceded share of technical provisions

€m	31.12.2016	Prev. year
Unearned premiums	317	343
Provision for future policy benefits	862	1,176
Provision for outstanding claims	2,491	2,807
Other technical provisions	-1	1
Total	**3,669**	**4,327**

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

12 Other receivables

Breakdown of other receivables

€m	31.12.2016	Prev. year
Amounts receivable on primary insurance business	1,306	1,281
Accounts receivable on reinsurance business	5,901	5,389
Interest and rent	2,464	2,570
Miscellaneous receivables	4,248	2,582
Total	**13,919**	**11,823**

Of the amounts receivable on primary insurance business, €485m (477m) is apportionable to receivables from insurance agents. The miscellaneous receivables include receivables of €1,968m (587m) resulting from contracts without significant risk transfer, which do not fall within the scope of IFRS 4.

Assets pledged as security and other restrictions on title amount to €54m (52m).

The miscellaneous receivables contain cash collateral of €534m (390m), mainly for derivative transactions.

Given that the vast majority of other receivables, i.e. a total of €11,636m (10,677m) have a period to maturity of less than one year, the fair values largely correspond to the carrying amounts.

As at 31 December 2016, 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	31.12.2016	Prev. year
AAA	2	3
AA	42	25
A	51	42
BBB and lower	0	0
No external rating	144	133

Of all our receivables on underwriting business at the balance sheet date, €346m (298m) was outstanding for more than 90 days. The average defaults of the last three years amount to €261m (225m).

13 Deferred acquisition costs

Deferred acquisition costs

€m	31.12.2016	Prev. year
Gross	9,634	9,428
Ceded share	–95	–80
Net	**9,539**	**9,348**

Development of gross deferred acquisition costs

€m	31.12.2016	Prev. year
Status at 31 Dec. previous year	9,428	9,555
Currency translation differences	–44	116
Change in consolidated group/Other	90	–80
New deferred acquisition costs	3,823	2,667
Changes		
Amortisation	-3,512	–2,696
Impairment losses	–152	–134
Status at 31 Dec. financial year	**9,634**	**9,428**

The amortisation includes accrued interest as well as write-downs. The impairment losses comprise impairment losses and reversals of impairment losses stemming from changes in the assumptions underlying the calculations which require an adjustment in the measurement.

In the ERGO International segment, assumptions regarding future lapses, costs and long-term interest-rate levels were adjusted in the 2016 financial year on the basis of the non-current regular return on investments. Overall, these adjustments led to impairment losses of deferred acquisition costs.

14 Deferred tax

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

No deferred taxes were posted for temporary differences of €52m (54m) in connection with investments in subsidiaries and associates, also referred to as outside basis differences.

Deferred tax

	31.12.2016		Prev. year	
€m	Assets	Liabilities	Assets	Liabilities
Assets				
A. Intangible assets	65	216	55	239
B. Investments	2,533	3,412	2,367	3,450
C. Insurance-related investments	5	16	6	12
E. Receivables	48	134	86	66
I. Other assets	932	1,349	845	1,312
Total assets	**3,583**	**5,127**	**3,359**	**5,079**
Equity and liabilities				
C. Net technical provisions	2,612	4,806	2,401	4,605
E. Other provisions	994	216	997	305
F. Liabilities	144	–1	160	6
Total equity and liabilities	**3,750**	**5,021**	**3,558**	**4,916**
Loss carry-forwards and tax credits	**913**	**0**	**942**	**0**
Total before netting	**8,246**	**10,148**	**7,859**	**9,995**
Netting amount	–7,918	–7,918	–7,653	–7,653
Total	**328**	**2,230**	**206**	**2,343**

The available loss carry-forwards and tax credits are broken down as follows.

Tax loss carry-forwards and tax credits

	31.12.2016			Prev. year		
€m	For which deferred tax assets are recognised	For which deferred tax assets are not recognised	Total	For which deferred tax assets are recognised	For which deferred tax assets are not recognised	Total
Corporation tax loss carry-forwards						
Expiring in up to three years	36	65	101	108	97	205
Expiring in over three years and up to ten years	126	86	212	37	94	131
Expiring in over ten years	154	21	175	21	130	151
Not expiring	1,136	1,814	2,950	1,527	849	2,376
	1,452	**1,986**	**3,438**	**1,693**	**1,170**	**2,863**
Trade tax loss carry-forwards						
Not expiring	2,637	156	2,793	2,995	171	3,166
	2,637	**156**	**2,793**	**2,995**	**171**	**3,166**
Loss carry-forwards from capital losses						
Expiring in up to three years	0	0	0	6	63	69
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**	**6**	**63**	**69**
Tax credits						
Expiring in up to three years	0	0	0	0	0	0
Expiring in over three years and up to ten years	40	0	40	25	45	70
Expiring in over ten years	0	0	0	2	6	8
Not expiring	81	0	81	97	0	97
	121	**0**	**121**	**124**	**51**	**175**

15 Other assets

These mainly comprise owner-occupied property totalling €2,374m (2,402m), and plant and equipment of €272m (289m). Advance payments on insurance amounted to €339m (384m), derivatives totalled €68m (141m), miscellaneous deferred items €177m (169m), and recoveries from policyholders €0m (42m).

Development of property, plant and equipment

€m	Owner-occupied property 2016	Operating and office equipment 2016	Other 2016	Total 2016
Gross carrying amount at 31 Dec. previous year	3,580	1,049	33	4,662
Accumulated depreciation and impairment losses at 31 Dec. previous year	–1,178	–760	–25	–1,963
Carrying amount at 31 Dec. previous year	2,402	289	8	2,699
Currency translation differences	5	–1	0	4
Additions				
Business combinations	27	1	0	28
Other	60	95	8	163
Disposals				
Loss of control	0	0	0	0
Other	–50	–11	–2	–64
Impairment losses reversed	19	0	0	19
Depreciation and impairment losses				
Depreciation	–66	–99	–4	–168
Impairment losses	–8	0	0	–8
Reclassification	–14	–1	0	–15
Carrying amount at 31 Dec. financial year	**2,374**	**272**	**11**	**2,657**
Accumulated depreciation and impairment losses at 31 Dec. financial year	–1,179	–765	–24	–1,967
Gross carrying amount at 31 Dec. financial year	3,554	1,038	34	4,625

→

€m	Owner-occupied property Prev. year	Operating and office equipment Prev. year	Other Prev. year	Total Prev. year
Gross carrying amount at 31 Dec. previous year	3,561	1,032	42	4,635
Accumulated depreciation and impairment losses at 31 Dec. previous year	–1,137	–758	–34	–1,929
Carrying amount at 31 Dec. previous year	2,424	274	8	2,706
Currency translation differences	21	2	1	24
Additions				
Business combinations	0	0	0	0
Other	31	128	8	167
Disposals				
Loss of control	0	–1	0	–1
Other	–6	–13	–2	–22
Impairment losses reversed	28	0	0	28
Depreciation and impairment losses				
Depreciation	–64	–98	–4	–166
Impairment losses	–11	–1	0	–12
Reclassification	–20	–2	–3	–25
Carrying amount at 31 Dec. financial year	**2,402**	**289**	**8**	**2,699**
Accumulated depreciation and impairment losses at 31 Dec. financial year	–1,178	–760	–25	–1,963
Gross carrying amount at 31 Dec. financial year	3,580	1,049	33	4,662

The fair value of the property amounts to €2,912m (2,924m). This is allocated to Level 3 of the fair value hierarchy; see Assets – B Investments, Determining fair values. The methodology for determining the fair values is described in the Notes to the consolidated balance sheet – Assets (3) Land and buildings, including buildings on third-party land.

The expenditures recognised in the carrying amount for assets in the course of construction totalled €8m (25m) for property and €25m (24m) for plant and equipment. Commitments to acquire property total €3m (3m) and commitments to acquire plant and equipment €15m (12m).

16 Non-current assets and disposal groups held for sale and sold in the reporting period

In November 2015, ERGO International AG, Düsseldorf, had agreed on selling its Italian subsidiary ERGO Italia to the private equity investor Cinven. The transaction was concluded at the end of June 2016, and ERGO Italia and its subsidiaries were deconsolidated. The disposal had an impact of around €9m on our consolidated result in the financial year. As at 31 December 2015, we had set aside a reserve of €82m for the anticipated loss.

In the financial year, we classified several of the ERGO Life and Health Germany segment's investment properties as "held for sale". Their carrying amounts totalled €108m, and the disposals had been concluded by the balance sheet date. The results from the disposals were all positive and, due to policyholder participation, had no material effect on our net result.

Notes to the consolidated balance sheet – Equity and liablities

17 Equity

The total share capital of €587,725,396.48 as at 31 December 2016 is divided into 161,053,897 no-par-value registered shares, each fully paid up and entitled to one vote. In the year under review, the number of shares in circulation developed as follows:

Development of shares in circulation

Number of shares	2016	Prev. year
Status at 31 Dec. previous year	162,782,591	168,515,007
Additions		
Disposals from hedging stock appreciation rights under long-term incentive plans	471	1,859
Reductions		
Acquisition of shares for retirement (share buy-back programme)	–5,880,769	–5,734,275
Status at 31 Dec. financial year	**156,902,293**	**162,782,591**

On 31 December 2016, a total of 4,151,604 Munich Reinsurance Company shares with a calculated nominal value of around €15.2m were held by Group companies. This represents around 2.6% of the share capital.

In the financial year, Munich Re bought back 5,880,769 shares. This includes the 2015/2016 share buy-back programme completed on 15 April 2016, and the 2016/2017 programme approved by the Board of Management of Munich Reinsurance Company on 16 March 2016, which provides for the acquisition of shares up to a value of €1bn until the 2017 AGM.

The acquisition costs of all Munich Re shares in the possession of Group companies at the end of the financial year totalled €666,624,932.72.

A total of €1,329m was distributed to Munich Reinsurance Company's equity holders for the financial year 2015 in the form of a dividend of €8.25 per dividend-bearing share.

Composition of the capital authorised for capital increases

€m	31.12.2016
Authorised Capital 2013 (until 24 April 2018)	280
Authorised Capital 2015 (until 22 April 2020)	10
Total	**290**

Composition of contingent capital

€m	31.12.2016
Contingent Capital 2015 (until 22 April 2020)	117
Total	**117**

Composition of equity

€m	31.12.2016	Prev. year
Issued capital	573	573
Capital reserve	6,845	6,845
Retained earnings	14,890	14,110
Other reserves	6,628	6,032
Consolidated result attributable to Munich Reinsurance Company equity holders	2,580	3,107
Non-controlling interests	269	298
Total equity	**31,785**	**30,966**

The "other reserves" include €2,195m (1,848m) from currency translation and –€8m (–1m) resulting from valuation of cash flow hedges. In addition, "other reserves" contain unrealised gains and losses distributed between the different items as follows:

Unrealised gains and losses

€m	31.12.2016	Prev. year
Unconsolidated affiliated companies, associates and joint ventures not accounted for using the equity method	90	81
Associates and joint ventures accounted for using the equity method	80	91
Other securities available for sale		
Fixed-interest	8,649	7,886
Non-fixed-interest	2,924	2,446
Less		
Provision for deferred premium refunds recognised in equity	–5,609	–4,868
Deferred taxes recognised in equity	–1,381	–1,406
Non-controlling interests	–16	–19
Consolidation and currency translation effects	–297	–168
Adjustment item for disposal group	0	142
Total	**4,441**	**4,185**

Tax effects in the income and expenses recognised directly in equity

	2016			Prev. year		
€m	Before tax	Tax	After tax	Before tax	Tax	After tax
Currency translation	345	0	345	1,420	0	1,420
Unrealised gains and losses on investments	241	25	265	–2,401	580	–1,821
Change resulting from equity method measurement	12	0	12	–40	0	–40
Change resulting from cash flow hedges	–2	1	–1	1	0	1
Remeasurements of defined benefit plans	–108	32	–76	379	–113	266
Other changes	0	0	0	25	0	25
Income and expense recognised directly in equity	**487**	**57**	**544**	**–617**	**467**	**–150**

The taxes of €57m (467m) recognised directly in equity comprise current taxes on unrealised gains of €34m (11m) on assets, and an amount of €23m (456m) for deferred tax assets.

The non-controlling interests are mainly minority interests in individual companies of the primary insurance group. We disclose direct minority interests in special funds and in partnerships under "other liabilities". In the financial year 2016, there were no significant changes in the percentage interest held in consolidated subsidiaries.

Information on capital management is provided in the management report under "Financial position – Capital position".

18 Fair value hierarchy of liabilities

All financial liabilities that are recognised at fair value, and such financial instruments that are not recognised at fair value but for which a fair value is disclosed in the notes, are allocated to one of the fair value hierarchy levels of IFRS 13.

At each reporting date, we assess whether the allocation of these liabilities to the levels of the fair value hierarchy is still appropriate. If changes in the basis of valuation have occurred – for instance, if a market is no longer active or the valuation was performed using inputs requiring another allocation – we make the necessary adjustments.

For information on the valuation models used for measuring derivatives, please see the table and explanations in the Notes to the consolidated balance sheet – Assets (4) Hierarchy for the fair value measurement of investments. 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 liabilities to levels of the fair value hierarchy

				31.12.2016
€m	Level 1	Level 2	Level 3	Total
Liabilities measured at fair value				
Other liabilities				
Derivatives	104	1,163	545	1,811
Total	**104**	**1,163**	**545**	**1,811**
Liabilities not measured at fair value				
Subordinated liabilities	4,659	66	1	4,725
Bonds and notes issued	410	0	0	410
Amounts due to banks	0	139	266	405
Total	**5,069**	**205**	**267**	**5,541**

→				Prev. year
€m	Level 1	Level 2	Level 3	Total
Liabilities measured at fair value				
Other liabilities				
Derivatives	127	1,275	413	1,814
Total	**127**	**1,275**	**413**	**1,814**
Liabilities not measured at fair value				
Subordinated liabilities	4,856	63	2	4,921
Bonds and notes issued	402	0	0	402
Amounts due to banks	0	168	268	436
Total	**5,257**	**231**	**270**	**5,758**

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

The following table presents the reconciliation from the opening balances to the closing balances for other liabilities allocated to Level 3:

Reconciliation for liabilities allocated to Level 3

	Other liabilities at fair value through profit or loss	
€m	31.12.2016	Prev. year
Carrying amount at 31 Dec. previous year	413	276
Gains and losses	-90	-166
Gains (losses) recognised in the income statement	-82	-137
Gains (losses) recognised in equity	-7	-29
Acquisitions	132	115
Disposals	-92	-145
Transfer to Level 3	2	0
Transfer out of Level 3	0	0
Change in the fair value of derivatives	0	0
Carrying amount at 31 Dec. financial year	**545**	**413**
Gains (losses) recognised in the income statement that are attributable to liabilities shown at the end of the financial year	-71	-123

19 Subordinated liabilities

In the case of Munich Reinsurance Company bonds, annual outflows of liquidity amounting to the respective interest payments occur until the first possible call dates. In the financial year, these amounted to €263m. Thereafter, the liquidity outflows will vary, depending on the respective interest-rate level. For the registered bonds of ERGO Versicherung Aktiengesellschaft, and for the HSB Group bonds, the annual outflow is variable, depending on the respective interest-rate levels.

The fair value of the subordinated bond issued by Munich Reinsurance Company in June 2007 is hedged in respect of the risk-free interest rate by means of an interest-rate swap. The hedged changes in value of the subordinated liabilities and of the interest-rate swap are shown in the net finance costs with impact on profit or loss in each case.

The fair value of the subordinated liabilities at the balance sheet date amounted to €4,725m (4,921m). 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	31.12.2016	Prev. year
Munich Reinsurance Company, Munich, 6.25% until 2022, thereafter floating, €900m, Bonds 2012/2042	a	A	–	A	896	895
Munich Reinsurance Company, Munich, 6.625% until 2022, thereafter floating, £450m, Bonds 2012/2042	a+	A	–	A	526	609
Munich Reinsurance Company, Munich, 6.00% until 2021, thereafter floating, €1,000m, Bonds 2011/2041	a	A	–	A	994	992
Munich Reinsurance Company, Munich, 5.767% until 2017, thereafter floating, €1,349m, Bonds 2007/perpetual	a	A	A3 (hyb)	A	1,380	1,445
Munich Reinsurance Company, Munich, 7.625% until 2018, thereafter floating, £300m, Bonds 2003/2028	a+	A+	A2 (hyb)	A	351	406
ERGO Versicherung Aktiengesellschaft, Vienna, secondary market yield on federal government bonds (Austria) +70 BP, €12m[1], Registered bonds 2001/perpetual	–	–	–	–	12	12
ERGO Versicherung Aktiengesellschaft, Vienna, secondary market yield on federal government bonds (Austria) +70 BP, €13m[2], Registered bonds 1998/perpetual	–	–	–	–	13	13
HSB Group Inc., Delaware, LIBOR +91 BP, US$ 76m, Bonds 1997/2027	–	–	–	–	47	44
Total					**4,218**	**4,416**

1 ERGO International AG holds bonds with a nominal value of €3m; the volume outstanding has been reduced accordingly.
2 ERGO Group AG holds bonds with a nominal value of €3m; the volume outstanding has been reduced accordingly.

20 Unearned premium

Unearned premiums

€m	31.12.2016	Prev. year
Gross	8,984	8,841
Ceded share	-317	-343
Net	**8,667**	**8,498**

Development of gross unearned premiums

€m	31.12.2016	Prev. year
Status at 31 Dec. previous year	8,841	8,373
Currency translation effects	-45	349
Changes in consolidated group/Other	0	-36
Gross premiums written	48,851	50,374
Earned premiums	-48,664	-50,219
Status at 31 Dec. financial year	**8,984**	**8,841**

21 Provision for future policy benefits

Provision for future policy benefits

€m	31.12.2016	Prev. year
Gross	108,108	108,572
Ceded share	–862	–1,176
Net	**107,246**	**107,396**

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

€m	31.12.2016	Prev. year
Life	**74,878**	**77,142**
Reinsurance	11,206	12,924
ERGO	63,672	64,218
Term life insurance	3,363	3,293
Other life insurance	26,718	28,343
Annuity insurance	32,268	31,277
Disability insurance	1,292	1,281
Contracts with combination of more than one risk	31	25
Health	**32,558**	**30,962**
Munich Health	1,196	1,118
ERGO	31,362	29,844
Property-casualty	**672**	**468**
Reinsurance	26	26
ERGO	646	442
Total	**108,108**	**108,572**

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 2016 to the assumptions regarding future lapses, future administration expenses, and to long-term interest-rate levels that are geared to the long-term regular return on investments. This resulted in an increase to the provision for future policy benefits.

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

Development of gross provision for future policy benefits

€m	2016	Prev. year
Status at 31 Dec. previous year	108,572	112,648
Currency translation differences	–520	1,616
Changes in consolidated group/Other	–694	–4,726
Changes		
Scheduled	47	–1,523
Unscheduled	704	557
Status at 31 Dec. financial year	**108,108**	**108,572**

The change shown under "changes in consolidated group/ other" contains €462m (367m) in savings premiums for capitalisation products and –€2,434m (–1,255m) for portfolio entries and withdrawals.

Scheduled changes in the provision for future policy benefits contain the changes deriving from prospective calculation as a result of premium payments, benefit cases and the unwinding of discount in the 2016 financial year.

22 Provision for outstanding claims

Provision for outstanding claims

€m	31.12.2016	Prev. year
Gross	61,362	59,756
Ceded share	–2,491	–2,807
Net	**58,871**	**56,949**

Gross provision by type

€m	31.12.2016	Prev. year
Annuity claims provision	7,222	6,755
Case reserve	24,895	24,391
IBNR reserve	29,245	28,610
Total	**61,362**	**59,756**

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 reinsurance and life primary insurance segment for future annuity payments; a small part refers to provisions for annuities in personal accident, liability and workers' compensation insurance. The biometric actuarial assumptions are selected using appropriate actuarial principles. Provisions for annuity claims are calculated as the present value of the expected future payments. The discount rates used are presented in the Disclosures on risks from insurance contracts under (38) Disclosures on risks from life and health insurance business and (39) 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.

In the life reinsurance segment, the measurement assumptions were adjusted in the financial year. These adjustments led to a reduction in the provision for outstanding claims.

Expected payments from the provisions for outstanding claims (property-casualty only)

	Reinsurance		ERGO	
%	31.12.2016	Prev. year	31.12.2016	Prev. year
Up to one year	32.2	31.6	34.0	34.8
Over one year and up to five years	44.9	43.1	39.4	38.8
Over five years and up to ten years	12.5	13.7	14.8	15.0
Over ten years and up to fifteen years	4.6	5.2	5.0	5.9
Over fifteen years	5.8	6.5	6.8	5.5

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]

	2016			Prev. year		
€m	Gross	Ceded share	Net	Gross	Ceded share	Net
Balance at 31 Dec. previous year	48,218	–2,208	46,009	45,752	–2,109	43,643
Currency translation differences	540	-67	473	2,233	–100	2,133
Changes in consolidated group/Other	0	0	0	–148	15	–133
Claims expenses						
For the year under review	15,978	-602	15,376	15,159	-644	14,515
For previous years	–1,624	153	–1,471	–1,707	108	–1,599
Total claims expenses	14,353	–449	13,905	13,453	–537	12,916
Unwinding of discount	61	–2	58	64	–2	61
Less payments						
For the year under review	–5,737	151	–5,587	–5,517	131	–5,386
For previous years	–8,557	341	–8,216	–7,619	394	–7,225
Total payments	–14,294	491	–13,803	–13,136	525	–12,611
Balance at 31 Dec. financial year	**48,877**	**–2,235**	**46,643**	**48,218**	**–2,208**	**46,009**

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”. In the financial year, most sectors experienced comparatively low claims-reporting activity from previous years, which had a positive influence on the ultimate-loss projection.

Net run-off results in property-casualty business
The values in the following run-off triangles cover more than 99% of our Group’s portfolio of property-casualty business.

Claims payments for the individual accident years (per calendar year, net)

€m	Accident year											
Calendar year	≤ 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
2006	11,202											
2007	7,328	4,349										
2008	5,016	2,920	4,531									
2009	3,371	1,361	3,471	4,629								
2010	2,460	875	1,782	3,353	5,115							
2011	2,514	566	654	1,388	3,394	6,091						
2012	1,406	216	479	529	1,711	4,364	5,983					
2013	1,022	37	212	378	762	2,098	3,089	5,866				
2014	1,110	197	310	376	650	1,180	1,473	3,375	5,592			
2015	995	78	163	281	419	603	488	1,317	3,037	5,278		
2016	1,297	67	136	171	357	483	371	722	1,551	2,841	5,587	13,583

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

€m	Accident year											
Date	≤ 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
31 Dec. 2006	40,303											
31 Dec. 2007	33,129	8,361										
31 Dec. 2008	27,599	5,658	9,660									
31 Dec. 2009	23,561	4,194	6,438	9,306								
31 Dec. 2010	20,523	3,237	4,600	5,909	9,220							
31 Dec. 2011	17,803	2,633	3,645	4,014	6,012	12,453						
31 Dec. 2012	15,896	2,033	3,007	3,344	4,168	8,191	9,185					
31 Dec. 2013	14,806	1,740	2,622	2,939	3,493	5,754	5,900	9,210				
31 Dec. 2014	13,464	1,456	2,032	2,237	2,880	4,168	4,197	6,084	9,497			
31 Dec. 2015	12,164	1,144	1,728	1,730	2,267	3,436	3,487	4,712	6,499	9,082		
31 Dec. 2016	10,618	1,103	1,503	1,514	1,673	2,480	3,080	3,673	4,909	6,289	9,749	46,591

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

€m	Accident year											
Date	≤ 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
31 Dec. 2006	51,505											
31 Dec. 2007	51,659	12,711										
31 Dec. 2008	51,145	12,928	14,191									
31 Dec. 2009	50,478	12,824	14,440	13,936								
31 Dec. 2010	49,900	12,742	14,383	13,891	14,335							
31 Dec. 2011	49,694	12,704	14,083	13,385	14,522	18,544						
31 Dec. 2012	49,193	12,320	13,924	13,243	14,388	18,646	15,168					
31 Dec. 2013	49,125	12,064	13,751	13,216	14,475	18,307	14,972	15,076				
31 Dec. 2014	48,894	11,978	13,471	12,890	14,512	17,901	14,742	15,325	15,089			
31 Dec. 2015	48,588	11,744	13,330	12,663	14,318	17,771	14,519	15,270	15,128	14,361		
31 Dec. 2016	48,339	11,771	13,241	12,618	14,081	17,298	14,482	14,953	15,089	14,408	15,336	191,617
Net run-off result	3,166	940	950	1,317	254	1,246	686	123	0	–48	n/a	8,635
Change 2015 to 2016	248	–27	89	45	237	473	37	317	39	–48	n/a	1,412

The ultimate loss of an accident year comprises all payments made for that accident year up to the reporting date, plus the claims reserve at the reporting date. Given complete information regarding all losses incurred up to the balance sheet date, the ultimate-loss status for each accident-year period would remain the same. In practice, however, the ultimate-loss status (based on estimates) is exposed to fluctuations that reflect the growth in knowledge about the claims cases. Changes in the consolidated group, especially new acquisitions or the composition of segments to be reported, 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). This ensures that currency translation does not lead to run-off effects.

23 Other technical provisions

Breakdown of other technical provisions

€m	31.12.2016	Prev. year
Provision for premium refunds based on national regulations	8,209	7,730
Provision for deferred premium refunds	10,155	9,190
Thereof resulting from unrealised gains and losses on investments (recognised directly in equity)	5,589	4,841
Thereof resulting from other remeasurements (recognised in profit or loss)	4,566	4,349
Provision for profit commission	513	252
Other	148	240
Total (gross)	**19,026**	**17,413**

Of the provision for premium refunds based on national regulations, €84m (81m) 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 –€1m (1m), of which €1m (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	2016	Prev. year
Status at 31 Dec. previous year	7,730	7,557
Changes in consolidated group	0	0
Allocations/Withdrawals	479	173
Status at 31 Dec. financial year	**8,209**	**7,730**

Development of provision for deferred premium refunds

€m	2016	Prev. year
Status at 31 Dec. previous year	9,190	10,622
Changes in consolidated group	-337	0
Change resulting from unrealised gains and losses on investments (recognised directly in equity)	748	–1,509
Change resulting from other remeasurements (recognised in profit or loss)	553	77
Status at 31 Dec. financial year	**10,155**	**9,190**

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 measurement 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	2016	Prev. year
Balance at 31 Dec. previous year	8,201	7,837
Changes in consolidated group/Other	47	63
Savings premiums	659	862
Unrealised gains/losses on fund asset	178	233
Withdrawal for expenses and risk	-59	-81
Withdrawal for benefits	-597	-713
Balance at 31 Dec. financial year	**8,429**	**8,201**

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	31.12.2016	Prev. year
Provisions for post-employment benefits	3,058	2,751
Other provisions	1,837	1,393
Total	**4,895**	**4,145**

Provisions for post-employment benefits

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.

Some plans funded through payment of insurance premiums have previously been treated as defined contribution plans in accordance with IAS 19. However, because of the liability remaining with the Company due to the low-interest-rate phase, these plans will in future be recognised as performance-based plans. These changes are shown as "other changes" in "Change in the present value of the defined benefit obligations", "Change in the fair value of plan assets for defined benefit plans" and "Change in the provision for defined benefit plans".

Expenses for defined contribution plans in the year under review totalled €67m (74m), with €111m (111m) for contributions to state plans.

Munich Reinsurance Company's pension obligations account for €1,550m (1,408m) of the present value of obligations under defined pension plans and €1,718m (1,441m) 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 intra-Group insurance contracts securing the obligations under pension schemes. The fund and insurance contracts have been grouped in a contractual trust agreement (CTA).

The pension obligations of the ERGO Group account for €2,967m (2,547m) of the present value of obligations under defined pension plans and €420m (290m) of plan assets. The obligations include disability and old-age pensions, and pensions for surviving dependants. The amount of the pensions generally depends on salary and length of service. The commitments are generally funded through pension provisions. New members receive pension commitments in the form of defined contribution plans financed by means of intra-Group insurance contracts securing the obligations under pension schemes. There are also medical-care benefit obligations.

The pension obligations of Munich Reinsurance America, Inc. account for €771m (733m) of the present value of obligations under defined benefit plans, and €530m (488m) 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 trust 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.

Change in the present value of the defined benefit obligations

€m	2016	Prev. year
Status at 31 Dec. previous year	5,389	5,584
Currency translation differences	–4	106
Changes in consolidated group	4	0
Current service cost	157	160
Past service cost	–1	3
Gains and losses from plan settlements	–1	0
Contributions by plan participants	8	8
Interest expense	136	123
Payments	–142	–139
Payments from plan settlements	–3	0
Transfer of obligations	0	0
Actuarial gains/losses: Change in demographic assumptions	–13	–27
Actuarial gains/losses: Change in financial assumptions	384	–469
Actuarial gains/losses: Experience adjustments	–23	–31
Other	205	71
Status at 31 Dec. financial year	**6,095**	**5,389**

The present value of medical-care benefit obligations amounted to €310m (274m) at the balance sheet date.

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

Breakdown of the present value of defined benefit obligations

%	31.12.2016	Prev. year
Active members	52	50
Deferred members	14	14
Pensioners	34	36
Total	**100**	**100**

Pension obligations are measured using assumptions about future developments. The consolidated companies used the following actuarial assumptions (weighted-average values):

Actuarial assumptions

%	2016	Prev. year
Discount rate	2.2	2.5
Future increases in entitlement/salary	1.9	1.9
Future pension increases	1.4	1.4
Medical cost trend rate	4.3	4.0

Munich Re uses generally recognised biometric actuarial assumptions, adjusted as a rule to take account of company-specific circumstances. The average remaining life expectancy of a 65-year-old plan participant is 24.3 years for women and 24.1 years for men.

Change in the fair value of plan assets for defined benefit plans

€m	2016	Prev. year
Balance at 31 Dec. previous year	2,847	2,741
Currency translation differences	-19	71
Changes in consolidated group	0	0
Interest income	79	70
Return excluding interest income	322	-98
Contributions by the employer	75	56
Contributions by plan participants	5	6
Payments	-54	-57
Payments from plan settlements	-6	0
Transfer of assets	0	0
Other	140	58
Balance at 31 Dec. financial year	**3,388**	**2,847**

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

%	31.12.2016	Prev. year
Quoted market price in an active market		
Cash or cash equivalents	1	1
Equity instruments	8	8
Debt instruments	49	51
Real estate	1	1
Derivatives	0	0
Securities funds	16	18
Asset-backed securities	0	0
Structured debt	0	0
Insurance contracts	24	19
Other	1	2
Total	**100**	**100**

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

For the financial year 2017, capital transfers of €103m (89m) to plan assets are expected.

Change in the reimbursement rights for defined benefit plans

€m	2016	Prev. year
Balance at 31 Dec. previous year	252	247
Interest income	5	4
Return excluding interest income	10	-17
Contributions by the employer	18	17
Contributions by plan participants	0	1
Payments	-8	-8
Transfer of assets	0	0
Other	0	8
Balance at 31 Dec. financial year	**276**	**252**

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

There was an effect of €9m (0m) resulting from the asset ceiling on overfunded defined benefit plans.

Funded status of defined benefit plans

€m	31.12.2016	Prev. year
Obligations funded through provisions		
Present value of defined benefit obligations	2,760	2,551
Other	0	0
Net balance sheet liability	2,760	2,551
Obligations funded through plan assets		
Present value of defined benefit obligations	3,335	2,838
Fair value of plan assets	-3,388	-2,847
Assets from the defined benefit plan	343	209
Effect of asset ceiling	9	0
Other	0	0
Net balance sheet liability	299	200
Obligations independent of funded obligations		
Present value of defined benefit obligations	6,095	5,389
Fair value of plan assets	-3,388	-2,847
Assets from the defined benefit plan	343	209
Effect of asset ceiling	9	0
Other	0	0
Net balance sheet liability	**3,058**	**2,751**

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 the course of 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).

Change in the provision for defined benefit plans

€m	2016	Prev. year
Balance at 31 Dec. previous year	2,751	2,965
Currency translation differences	8	38
Changes in consolidated group	4	0
Expenses	215	220
Payments	-88	-82
Payments from plan settlements	3	0
Capital transfer to plan assets	-80	-62
Transfer to other receivables	142	85
Actuarial gains/losses recognised in equity	91	-404
Other	13	-9
Balance at 31 Dec. financial year	**3,058**	**2,751**

Breakdown of expenses booked in the financial year

€m	2016	Prev. year
Net interest income or expense	52	49
Service cost	162	171
Other	1	0
Total	**215**	**220**

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 gains on plan assets amount to €400m (actual losses of €28m), and the actual gains on reimbursements to €15m (actual losses of 13m).

Contractual period to maturity of pension obligations

€m	31.12.2016	Prev. year
Up to one year	157	147
Over one year and up to five years	690	666
Over five years and up to ten years	996	947
Over ten years and up to twenty years	2,536	2,397
Over twenty years	6,852	6,501
Total	**11,231**	**10,658**

The weighted average contractual period to maturity of our pension obligations is 21 (20) years.

An increase or decrease in the following essential actuarial assumptions has an impact on the present value of defined benefit obligations:

Sensitivity analysis

€m	31.12.2016	Prev. year
Increase in actuarial discount rate by 50 BP	-564	-490
Decrease in actuarial discount rate by 50 BP	653	570
Increase in salary/entitlement trends by 10 BP	28	25
Decrease in salary/entitlement trends by 10 BP	-28	-24
Increase in pension trends by 10 BP	66	59
Decrease in pension trends by 10 BP	-60	-54
Increase in medical cost trend rate by 100 BP	51	40
Decrease in medical cost trend rate by 100 BP	-42	-33
Increase in mortality rate by 10%	-163	-134
Decrease in mortality rate by 10%	172	145

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	31.12.2016
Restructuring	366	584	–103	–1	0	846
Earned commission	172	1,993	–1,980	–4	–3	177
Multi-year variable compensation	145	36	–41	–10	1	131
Salary obligations and other remuneration for desk and field staff	122	97	–95	–2	0	122
Anniversary benefits	99	10	–6	0	1	104
Early retirement benefits/semi-retirement	63	14	–12	0	0	65
Anticipated losses	98	11	–93	0	–15	1
Miscellaneous	330	288	–219	–20	14	393
Total	**1,393**	**3,033**	**–2,549**	**–38**	**–2**	**1,837**

The provisions for restructuring mainly concern €69m (106m) for the ERGO Group's "Continuous improvement of our competitive position" project and €214m (253m) for the comprehensive restructuring of the ERGO Group's sales organisations. In the financial year, ERGO for the first time also posted restructuring provisions of €391m for the ERGO Strategy Programme, plus another €136m for the planned discontinuation of new business and the closure of the sales organisation in Belgium. The provision for multi-year variable remuneration includes components for multi-year performance and for the medium and long-term incentive plans. The other miscellaneous provisions comprise a large number of different items. The provisions for restructuring, early-retirement benefits/semi-retirement, anniversary benefits, multi-year performance and medium- and long-term incentive plans are mainly long term, whereas the provisions for earned commission, salary obligations, other remuneration for desk and field staff, and miscellaneous are essentially short term.

26 Bonds and notes issued

Breakdown of bonds and notes issued

€m	A.M. Best	Fitch	Moody's	S&P	31.12.2016	Prev. year
Munich Re America Corporation, Wilmington, 7.45%, US$ 342m, Senior Notes 1996/2026	a–	A+	A2	A–	324	314
Total					**324**	**314**

Outflows of liquidity occur annually in the amount of the interest payments until the notes mature. These totalled US$ 25m in the financial year. The fair value at the reporting date amounts to €410m (402m).

27 Deposits retained on ceded business

Deposits retained on ceded business are collateral for technical provisions covering business ceded to reinsurers and retrocessionaires. As a rule, the changes in deposits retained on ceded business derive from the changes in the relevant technical provisions covering ceded business. Deposits retained on ceded business thus do not have a fixed maturity date, their release generally being dependent on run-off of the corresponding provisions.

28 Other liabilities

Breakdown of other liabilities

€m	31.12.2016	Prev. year
Amounts payable on primary insurance business	2,734	2,902
Accounts payable on reinsurance business	5,477	5,274
Amounts due to banks	396	428
Miscellaneous liabilities	6,580	5,457
Total	**15,187**	**14,061**

The accounts payable on primary insurance business mainly contain liabilities towards policyholders resulting from accumulated participation in surplus, premium deposits and insurance contracts without significant risk transfer.

Of the amounts due to banks, €127m is attributable to bank borrowing by Group companies acquired by Munich Re under its infrastructure investment strategy including renewable energies and new technologies.

The miscellaneous liabilities contain liabilities of €1,439m (394m) resulting from reinsurance contracts without significant risk transfer, derivative financial instruments with a negative fair value of €872m (1,085m), and negative fair values totalling €939m (733m) for insurance-linked derivatives and hedging derivatives of variable annuities. The miscellaneous liabilities also include €24m (22m) for social security and €175m (183m) for interest and rent.

The following table provides information on the remaining contractual maturities of the items shown under “other liabilities”. The amounts payable on primary insurance business are directly linked to the underlying insurance business, and therefore we analyse the liquidity risk arising from these together with the corresponding insurance contracts. This currently also applies to the derivatives embedded in variable annuity business; see Disclosures on risks from insurance contracts, (38) Disclosures on risks from life and health insurance business. The derivatives listed below are recognised at fair value.

Remaining terms of the other liabilities according to carrying amounts
(excluding amounts payable on primary insurance business and excluding liabilities from derivative components embedded in variable annuities)

	Carrying amounts	
€m	31.12.2016	Prev. year
Up to one year	8,948	8,293
Over one year and up to two years	102	91
Over two years and up to three years	237	54
Over three years and up to four years	37	259
Over four years and up to five years	82	35
Over five years and up to ten years	1,153	640
Over ten years	998	1,025
Total	**11,556**	**10,398**

The major portion of the liabilities up to one year involve interest-free items, where the carrying amounts and the undiscounted cash flows are identical. A total of €47m (51m) of the amounts owed to banks and €391m (401m) of the liabilities from derivatives are due within one year. Any deviations in the liabilities with remaining terms of over one year from the undiscounted cash flows are not material for presenting the significance of the financial liabilities for our financial position and performance.

Notes to the consolidated income statement

29 Premiums

Premiums

€m	2016	Prev. year
Total gross premiums	50,052	51,705
Gross premiums written	48,851	50,374
Change in gross unearned premiums	-188	-155
Gross earned premiums	**48,664**	**50,219**
Ceded premiums written	-1,526	-1,869
Change in unearned premiums – Ceded share	-20	-41
Earned premiums ceded	**-1,546**	**-1,910**
Net earned premiums	**47,118**	**48,309**

The total gross premiums include not only the gross premiums written but also savings premiums from unit-linked life insurance and capitalisation products. Premiums from long-term insurance business, especially in life primary insurance, are recognised in full as earned premiums and income when they become due. Under gross premiums written, only those parts of the premium from unit-linked life business are included that are used to cover the risks and associated costs.

Of the gross premiums written from short-term insurance business, the portions attributable to periods after the balance sheet date are recognised as unearned premiums; see Notes to the consolidated balance sheet – Equity and liabilities under (20) Unearned premiums. Over the duration of the contracts, unearned premiums are reversed in accordance with the reduction in risk.

30 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 reinsurance segment, the income from technical interest corresponds to the risk-free interest on our technical provisions. For deposited provisions, it corresponds to the agreed 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 for primary insurance business 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.

In the Munich Health segment, the income from technical interest for 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. In the case of long-term reinsurance treaties, the interest 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.

31 Expenses for claims and benefits

Expenses for claims and benefits

€m	2016	Prev. year
Gross		
Claims and benefits paid	-35,973	-36,473
Change in technical provisions		
Provision for future policy benefits	-322	-552
Provision for outstanding claims	-799	-1,252
Provision for premium refunds	-1,969	-1,366
Other technical result	-104	-113
Gross expenses for claims and benefits	**-39,167**	**-39,756**
Ceded share		
Claims and benefits paid	1,188	1,199
Change in technical provisions		
Provision for future policy benefits	-33	-210
Provision for outstanding claims	-420	147
Provision for premium refunds	0	2
Other technical result	-67	-113
Expenses for claims and benefits – Ceded share	**669**	**1,025**
Net		
Claims and benefits paid	-34,785	-35,273
Change in technical provisions		
Provision for future policy benefits	-354	-762
Provision for outstanding claims	-1,219	-1,106
Provision for premium refunds	-1,969	-1,364
Other technical result	-170	-225
Net expenses for claims and benefits	**-38,498**	**-38,731**

The change in the provision for future policy benefits (net) contains €178m (233m) in unrealised gains/losses from unit-linked life insurance. Expenses for claims and benefits include expenses for policyholders' bonuses. Of this, €985m (903m) is for the allocation to the provision for premium refunds on the basis of national regulations, €208m (75m) for the change in the provision for deferred premium refunds recognised in the income statement, and €166m (87m) 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".

32 Operating expenses

Operating expenses

€m	2016	Prev. year
Gross		
Acquisition costs, profit commission and reinsurance commission paid	-9,753	-9,445
Administrative expenses	-2,945	-2,990
Change in deferred acquisition costs and contingent commissions, amortisation and impairment losses of acquired insurance portfolios	42	-410
Gross operating expenses	**-12,655**	**-12,846**
Ceded share		
Acquisition costs, profit commission and reinsurance commission paid	355	480
Change in deferred acquisition costs and contingent commissions	6	-2
Operating expenses – Ceded share	**360**	**478**
Net operating expenses	**-12,295**	**-12,367**

33 Investment result

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

€m	2016	Prev. year
Land and buildings, including buildings on third-party land	**383**	**334**
Investments in affiliated companies	**-159**	**-82**
Investments in associates and joint ventures	**124**	**375**
Loans	**2,633**	**2,156**
Other securities available for sale		
Fixed-interest	4,857	4,889
Non-fixed-interest	672	1,148
Other securities at fair value through through profit or loss		
Held for trading		
Fixed-interest	0	0
Non-fixed-interest	4	1
Derivatives	-608	-1,098
Designated at fair value through profit or loss		
Fixed-interest	13	-8
Non-fixed-interest	4	1
Deposits retained on assumed reinsurance, and other investments	**174**	**326**
Expenses for the management of investments, other expenses	**-530**	**-506**
Total	**7,567**	**7,536**

The result for land and buildings includes rental income of €405m (393m). The expenses for the management of investments include running costs and expenses for repair and maintenance of property totalling €69m (65m). We earned interest income of €2,063m (2,098m) on loans. Other securities available for sale produced regular income of €3,755m (4,145m), while derivatives generated €114m (137m). Interest expenses on non-derivative investments amounted to €12m (13m), administrative expenses to €375m (361m), and other expenses to €86m (81m).

Write-downs of non-derivative investments

€m	2016	Prev. year
Land and buildings, including buildings on third-party land	-101	-113
Investments in affiliated companies	-7	-2
Investments in associates and joint ventures	-14	-22
Loans	-38	-59
Other securities available for sale	-353	-553
Other securities at fair value through profit or loss	-44	-20
Other investments	-52	-78
Total	**-608**	**-848**

34 Insurance-related investment result

Result from insurance-related investments

€m	2016	Prev. year
Result from investments for unit-linked life insurance contracts	238	259
Result from other insurance-related investments	88	-119
Total	**326**	**140**

35 Other operating result

Other operating result

€m	2016	Prev. year
Other operating income	744	873
Thereof:		
Interest income	70	103
Write-ups of other operating assets	33	57
Other operating expenses	-938	-941
Thereof:		
Interest charges	-89	-97
Write-downs of other operating assets	-71	-69

Other operating income mainly comprises income of €527m (533m) from services rendered, interest and similar income of €70m (103m), income of €57m (123m) from the release/reduction of miscellaneous provisions and provisions for bad and doubtful debts, and income of €48m (47m) from owner-occupied property, some of which is also leased out.

In addition to expenses of €431m (414m) for services rendered, other operating expenses chiefly include interest charges and similar expenses of €92m (99m), other write-downs of €57m (61m), and other tax of €107m (107m). They also contain expenses of €24m (14m) for owner-occupied property, some of which is also leased out.

The other operating result includes the result from reinsurance treaties without sufficient risk transfer totalling €43m (62m), of which €41m (71m) derives from the Life Reinsurance segment.

36 Other non-operating result, impairment losses on goodwill and net finance costs

Other non-operating result, impairment losses on goodwill and net finance costs

€m	2016	Prev. year
Other non-operating result	-437	-532
Impairment losses on goodwill	-28	-452
Net finance costs	-219	-238

The other non-operating result is unrelated to the conclusion, administration or settlement of insurance contracts or the administration of investments. It essentially comprises a foreign-currency result of €485m (–213m), the other non-technical result of –€245m (–225m), write-downs of €96m (79m) on other intangible assets, and restructuring expenses of €583m (18m).

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	2016	Prev. year
Subordinated bonds of Munich Reinsurance Company, Munich	-192	-211
Senior notes of Munich Re America Corporation, Wilmington	-23	-23
Subordinated bonds of HSB Group Inc., Delaware	-2	-2
Other	-1	-1
Total	**-219**	**-238**

37 Taxes on income

This item shows the corporation tax and municipal trade earnings tax paid by the German consolidated companies (including solidarity surcharge and interest on back tax) 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	2016	Prev. year
Current tax for financial year	-1,093	-987
Current tax for other periods	286	927
Deferred tax resulting from the occurrence or reversal of temporary differences	174	-435
Deferred tax resulting from the occurrence or utilisation of loss carry-forwards	-254	117
Valuation allowances for deferred taxes/loss carry-forwards	126	-99
Effects of changes in tax rates on deferred tax	1	1
Taxes on income	**-760**	**-476**

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). Trade-tax municipal factors range from 240% to 490%.

Reconciliation to effective tax expenses/income

€m	2016	Prev. year
Result before taxes on income (after “other tax”)	3,341	3,598
Group tax rate in %	33	33
Derived taxes on income	-1,102	-1,187
Tax effect of:		
Tax rate differences	279	275
Tax-free income	1	17
Non-deductible expenses	-299	-495
Valuation allowances for deferred taxes/loss carry-forwards	126	-99
Change in tax rates and tax legislation	1	1
Tax for prior years	310	956
Trade tax adjustments	-21	14
Other	-55	42
Taxes on income shown	**-760**	**-476**

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 2016 financial year, there was a tax burden of 22.7% (previous year: 13.2%).

Disclosures on risks from insurance contracts

Munich Re's reporting is based on various legal regulations governing risks it is exposed to as a result of its business operations:

In the notes to the financial statements, risks from insurance contracts must be reported in accordance with IFRS 4 and risks from financial instruments in accordance with IFRS 7. Further disclosures on risks are required in the management report under Section 315 (2) no. 2 of the German Commercial Code (HGB) and German Accounting Standard no. 20 (DRS 20) for management reports.

Since risk reporting concerns not only accounting but also the activities of integrated risk management (IRM) at Munich Re, information on risks is provided in the risk report within the management report, in the disclosures on risks from insurance contracts, and in the disclosures on technical provisions and financial instruments in the notes to the financial statements. Where necessary, we refer to the relevant information in the risk report and information on the respective items.

The disclosures in the risk report largely adopt a purely economic view. The report provides an account of the organisation of risk management and Munich Re's risk strategy, briefly outlines the main risks we are exposed to, and describes the economic risk capital calculated by means of our internal risk model. The report also contains information on specific risk complexes.

The provision – stipulated by the requirements of IFRS 4 – of quantitative data on the effects of changes in the assumptions underlying the measurement of insurance contracts and/or in the market environment is also covered by information about economic risk capital stated in the risk report.

In the notes to the financial statements, we describe in detail uncertainties involved in measuring insurance contracts. For risks from financial instruments, IFRS 7 stipulates that the disclosures must comprise information on the remaining terms and the rating.

38 Disclosures on risks from life and health insurance business

Significant risks from life and health insurance business comprise underwriting risks, market risks and liquidity risks. These risks are described in detail in the risk report.

Underwriting risk Of importance for the underwriting risks are biometric risks and lapse risks. Biometric risks mainly relate to mortality, disability, morbidity and longevity. The biometric assumptions we use for measuring insurance contracts in our portfolios are regularly reviewed on the basis of updated portfolio information. Especially in primary insurance, this includes considering country-specific reviews by supervisory authorities. We also take account of market standards when checking the adequacy of biometric actuarial assumptions and the trend assumptions included in them. In reinsurance, a lapse risk also derives from the indirect transfer of lapse risks from cedants. As a rule, both this risk and the financial risk from extraordinary termination of reinsurance contracts are largely ruled out through appropriate contract design. The lapse risk in primary insurance is allowed for by means of appropriate liquidity planning and adequate calculation of the surrender value.

Market risk With regard to our technical provisions, we are particularly exposed to interest-rate risk. A distinction must be made between risks of changes in interest rates on the one hand and interest-rate guarantee risks on the other. Risks of changes in interest rates would result from the discounting of the provision for future policy benefits and of parts of the provision for outstanding claims. In accordance with accounting valuation rules, the discount rate is fixed at contract commencement and will generally not be adjusted during the term of the contract. To this extent, the accounting valuation of these technical provisions does not depend directly on the level of the market interest rates. Economically, however, an interest-rate risk derives in principle from the need to earn a return on the investments covering the provision that is commensurate with the discount rate used in measuring the provision.

In reinsurance, we use the following discount rates for the provision for future policy benefits and the provision for outstanding claims:

Discount rates used for provisions – Reinsurance (gross)

€m	31.12.2016	Prev. year
Without discount rate	4,149	3,806
Discount rate ≤ 2.0%	617	118
2.0% < discount rate ≤ 3.0%	383	442
3.0% < discount rate ≤ 4.0%	5,051	4,443
4.0% < discount rate ≤ 5.0%	3,640	3,732
5.0% < discount rate ≤ 6.0%	2,487	2,327
6.0% < discount rate ≤ 7.0%	115	125
7.0% < discount rate ≤ 8.0%	456	446
Discount rate > 8.0%	203	161
Covered by deposits retained on assumed reinsurance	3,344	5,608
Total	**20,444**	**21,208**

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. As in the previous year, cedants provide an interest-rate guarantee for all deposits retained. ↗

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. The discount rate used to calculate the provision for future policy benefits is identical with this 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. In long-term health primary insurance, a discount rate is also used for calculating the provision for future policy benefits. However, this rate can generally be altered by way of premium adjustment. For short-term business, there is no direct interest-rate risk.

In primary insurance, the discount rates relevant for the portfolio in calculating the provision for future policy benefits and the provision for outstanding claims are as follows:

Discount rates used for provisions – Primary insurance (gross)

		Life		Health		Total
€m	31.12.2016	Prev. year	31.12.2016	Prev. year	31.12.2016	Prev. year
Without discount rate	4,129	3,984	1,403	1,351	5,533	5,335
Discount rate ≤ 2.0%	4,281	2,408	50	0	4,330	2,408
2.0% < discount rate ≤ 3.0%	21,915	23,568	10,049	6,007	31,964	29,575
3.0% < discount rate ≤ 4.0%	35,458	36,232	5,786	7,880	41,244	44,112
4.0% < discount rate ≤ 5.0%	101	36	16,017	16,859	16,118	16,895
Discount rate > 5.0%	0	10	2	91	2	101
Total	**65,884**	**66,238**	**33,307**	**32,190**	**99,191**	**98,427**

Besides this, in German health primary insurance, discount rates of 1.5–3.5% 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 €4,981m (4,882m). These discount rates can be altered in the case of a premium adjustment.

Other market risks are of particular importance to unit-linked life insurance policies, the lump-sum option in the case of deferred annuity policies and derivatives embedded in variable annuities.

For the unit-linked life insurance contracts in our portfolios, the investments are held for the benefit of life insurance policyholders who bear the investment risk, meaning that there is no direct market risk. Appropriate product design ensures that the necessary premium portions for payment of a guaranteed minimum benefit on occurrence of death are based on the current fund assets.

The lump-sum option in the case of deferred annuity policies gives policyholders the option of having their annuity paid out in a single payment at a fixed date. As a result, there is a potential risk if an unexpectedly large number of policyholders exercise 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 and interest rates, but these sensitivities are nearly fully compensated for by the fact that such derivatives are for the most part directly matched by financial derivatives for hedging purposes.

Liquidity risk For Munich Re, there could be a liquidity risk if the cash outflow for insurance claims payments and the costs related to the business were to exceed the cash inflow from premiums and investments. For our mainly long-term business, we therefore analyse the expected future balance from cash inflows due to premium payments and outflows for payment of insurance claims and benefits plus costs.

At the balance sheet date, this results in the expected future technical payment balances (including variable annuities) shown in the following table according to duration bands. As only the technical payment flows are considered, inflows from investment income and investments that become free are not included in the quantifications.

Expected future technical cash flow (gross)[1]

€m	31.12.2016	Prev. year
Up to one year	-3,602	-3,879
Over one year and up to five years	-10,207	-10,762
Over five years and up to ten years	-15,798	-15,154
Over ten years and up to 20 years	-39,076	-36,237
Over 20 years	-102,062	-94,543

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.

39 Disclosures on risks from property-casualty insurance business

Of particular importance for property-casualty insurance contracts is the estimation risk with regard to the amount of the expected claims expenditure for future claims from current insurance contracts (premium risk) and for claims already incurred (reserve risk). There is an interest-rate risk for parts of the portfolio. Besides this, the liquidity risk has to be taken into account.

Premium risk The degree of exposure to premium risks differs according to class of business and also between primary insurance and reinsurance. On the basis of the loss ratios and combined ratios of past years shown in the following table, conclusions can be drawn about the historical volatilities in the different classes of business and about possible interdependencies. The differences in volatility are due equally to fluctuations in claims expenditure and fluctuations in the respective market-price level for the covers granted.

Premiums, loss ratios and combined ratios by class of business

	2016	2015	2014	2013	2012
Gross premiums written in €m					
Reinsurance					
Liability	2,911	2,869	2,473	2,348	2,326
Accident	316	274	282	275	246
Motor	3,943	3,707	3,557	3,377	3,190
Marine, aviation, space	1,308	1,546	1,596	1,639	1,915
Fire	4,375	4,238	4,247	4,560	4,816
Engineering	1,438	1,550	1,476	1,490	1,573
Credit and surety	641	617	644	709	705
Other classes of business	2,895	2,877	2,455	2,615	2,281
Primary insurance	6,135	5,985	5,755	5,507	5,554
Loss ratio in %					
Reinsurance					
Liability	73.2	71.0	65.4	91.8	85.8
Accident	74.2	83.3	67.1	65.2	37.6
Motor	72.3	69.3	72.5	75.0	70.2
Marine, aviation, space	56.7	46.7	50.8	45.3	47.1
Fire	59.7	42.2	49.9	51.0	49.6
Engineering	48.3	44.8	57.1	39.4	52.0
Credit and surety	71.1	65.7	56.2	64.5	56.4
Other classes of business	55.1	57.0	62.1	58.1	67.8
Primary insurance	59.7	63.6	60.0	62.5	64.7
Combined ratio in %					
Reinsurance					
Liability	107.4	104.3	97.1	122.3	115.6
Accident	99.2	121.7	107.4	102.2	74.8
Motor	100.9	99.7	104.9	105.1	101.7
Marine, aviation, space	92.3	80.2	84.0	75.1	75.7
Fire	86.3	70.2	76.9	76.0	73.7
Engineering	93.1	89.2	101.9	82.2	93.2
Credit and surety	110.8	109.0	98.7	101.7	94.9
Other classes of business	90.3	88.6	92.3	89.0	98.0
Primary insurance	97.5	100.1	95.7	97.2	98.7

In the pricing of risks assumed in the accident, fire and marine lines of business, and also in sections of engineering reinsurance and in primary insurance, there is a high degree of sensitivity regarding the underlying assumptions about natural catastrophes. The following table therefore shows the combined ratios for property-casualty reinsurance including and excluding natural catastrophe losses.

Combined ratio in reinsurance for the last ten years[1]

%	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Including natural catastrophes[2]	95.7	89.7	92.7	92.1	91.0	113.8	100.5	95.3	99.4	96.4
Excluding natural catastrophes	90.2	88.8	89.4	87.4	83.3	84.4	89.5	93.9	93.2	91.7

1 In 2012, our segment reporting was modified and no longer has a consolidation column. The figures for the previous year have been adjusted accordingly. Comparability with the years up to and including 2010 is thus limited.
2 The figure for 2011 is not adjusted for relief of 1.4 percentage points from economic risk transfer to the capital markets.

Major losses, by which we mean individual losses exceeding €10m, are of particular relevance for the volatility of property-casualty business in reinsurance. The analysis below shows that the volatility of the individual years in this loss category is mainly attributable to the respective intensity of natural catastrophe losses, whilst the other accumulation risks exhibit a distinctly less volatile pattern.

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

€m	2016	2015	2014	2013	2012
Large losses	–1,542	–1,046	–1,162	–1,689	–1,799
Thereof losses from natural catastrophes	–929	–149	–537	–764	–1,284
Thereof other accumulation losses	–613	–897	–625	–925	–515

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

Reserve risk The provision for outstanding claims is subject to the risk that actual claims settlement may be less than or exceed the amount reserved.

A particular sensitivity to reserve risks exists in the case of contracts with long run-off periods. This characteristic applies especially to casualty insurance, where liabilities may manifest themselves after a considerable latency period. Particularly with regard to asbestos insurance liabilities, we cover losses from policies taken out decades ago that manifest themselves after a latency period of as long as 30–50 years. In response, we have posted provisions for claims under long-cancelled general liability policies which provided coverage according to the legal environment applicable at that time.

Provisions for asbestos and environmental claims

	31.12.2016		Prev. year	
€m[1]	Gross	Net	Gross	Net
Asbestos	1,525	1,307	2,004	1,739
Environmental	468	386	441	358

1 The previous year's figures have been adjusted to eliminate currency translation effects.

The development of our claims reserves and the corresponding run-off results are shown in the Notes to the consolidated balance sheet – Equity and liabilities (22) Provision for outstanding claims.

Interest-rate risks Economically, an interest-rate risk derives from the need to earn a return on the investments covering the provision that is commensurate with the discount rate used in measuring the provision. In balance sheet terms, the interest-rate risk affects only those parts of the technical provisions that are discounted and for which an inflow of investment income from deposits retained is not secured from cedants in at least the same amount. For discounting technical provisions, we use the interest rates shown in the table below.

Discounted technical provisions according to discount rates (gross)

	Reinsurance		Primary insurance		Total	
€m	31.12.2016	Prev. year	31.12.2016	Prev. year	31.12.2016	Prev. year
Discount rate ≤ 2.0%	14	9	254	229	268	238
2.0% < discount rate ≤ 3.0%	300	228	301	304	601	532
3.0% < discount rate ≤ 4.0%	112	189	426	438	538	627
4.0% < discount rate ≤ 5.0%	1,280	1,346	0	0	1,280	1,346
Discount rate > 5.0%	0	0	0	0	0	0
Total	**1,706**	**1,772**	**981**	**971**	**2,687**	**2,743**

The major part of the discounted provisions in reinsurance is for US workers' compensation business, for which the discount rates are governed by supervisory law and are determined prospectively per accident year. The discounting of the provisions in primary insurance is also largely governed by supervisory law.

Liquidity risk For Munich Re, liquidity risks could arise if the cash outflow for insurance claims payments and the costs related to the business were to exceed the cash inflow from premiums and investments. The following table shows that in the past calendar years the liquidity situation in underwriting has always been positive. Besides this, we also have extensive, sufficiently liquid investments available to fulfil our liquidity obligations.

Payment flows and liquid funds in the individual calendar years (gross)

€m	2016	2015	2014	2013	2012
Premiums received	23,786	23,511	22,335	22,520	22,606
Claims payments for financial year	-5,882	-5,659	-5,495	-5,617	-5,968
Claims payments for previous years	-8,545	-7,619	-8,193	-7,388	-8,898
Costs	-7,719	-7,501	-7,298	-7,024	-6,839
Balance	**1,639**	**2,731**	**1,349**	**2,491**	**901**

Other information

40 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.

41 Related parties

Information on the remuneration of Board members and transactions with these persons can be found in the management report under the remuneration report, and under (44) Remuneration report. Transactions between Munich Reinsurance Company and subsidiaries that are to be deemed related parties have been eliminated in consolidation and are not disclosed in the Notes. Business relations with unconsolidated subsidiaries are of subordinate importance as a whole; this also applies to business relations with associates and joint ventures.

Munich Reinsurance Company has established a contractual trust agreement in the form of a two-way trust for its unfunded company pension obligations. The Munich Re pension scheme is considered a related party in accordance with IAS 24. Contributions to the pension scheme are recognised as expenses for defined contribution plans; see Notes to the consolidated balance sheet – Equity and liabilities (25) Other provisions. For transactions of related parties with Munich Reinsurance Company shares, please refer to Notes to the consolidated balance sheet – Equity and liabilities (17) Equity.

42 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	2016	Prev. year
Wages and salaries	-2,849	-2,804
Social security contributions and employee assistance	-522	-516
Expenses for employees' pensions	-234	-288
Total	**-3,605**	**-3,608**

43 Mid-Term Incentive Plan

Since 1 January 2009, Munich Reinsurance Company has set up medium-term incentive plans, each with a term of three years. Eligible for participation in these cash-settled share-based remuneration plans are senior management in Munich. The participants receive performance share units (PSUs). In the fourth year after plan commencement, participants are entitled to a bonus payment dependent on the achievement of value-based performance targets and the increase in the total shareholder return (TSR).

The value-based performance targets are set in the form of an average target to be achieved over the following three years of the plan and are allocated according to responsibilities.

The basis for the full and partial allocation of the PSUs is the first plan year.

The final number of PSUs is calculated by multiplying the number of PSUs at plan commencement by the percentage achievement of the performance target at plan termination. The number of PSUs may fluctuate between 0 and 1.5 times the initially allocated number. Payment is capped if the TSR doubles. The maximum amount payable is limited to 300%.

The Mid-Term Incentive Plan at the reporting date is valued indirectly at the fair value of the liabilities. The fair value takes account of the value-based performance target and the total shareholder return (TSR) during the performance period. To this end, the TSR index value observable in the market is updated with the current dividend yield of Munich Re shares at the termination date and discounted with appropriate market interest rates.

In 2016, expenses of €4.0m (22.0m) were recognised for the Mid-Term Incentive Plan. The provision at the reporting date amounted to €35.3m (49.2m).

Munich Re's Mid-Term Incentive Plans 2013–2016

	Incentive Plan 2013	Incentive Plan 2014	Incentive Plan 2015	Incentive Plan 2016
Plan commencement	1.1.2013	1.1.2014	1.1.2015	1.1.2016
Plan end	31.12.2015	31.12.2016	31.12.2017	31.12.2018
Fair value 2016 for one right	€0.00	€413.38	€436.74	€461.16
Number of rights (for 100% achievement of objectives) on 1 January 2013	0	0	0	0
Additions	51,168	0	0	0
Number of rights (for 100% achievement of objectives) on 31 December 2013	51,168	0	0	0
Number of rights (for 100% achievement of objectives) on 1 January 2014	51,168	0	0	0
Additions	544	42,233	0	0
Forfeited	500	0	0	0
Number of rights (for 100% achievement of objectives) on 31 December 2014	51,212	42,233	0	0
Number of rights (for 100% achievement of objectives) on 1 January 2015	51,212	42,233	0	0
Additions	0	0	38,217	0
Forfeited	770	584	0	0
Number of rights (for 100% achievement of objectives) on 31 December 2015	50,442	41,649	38,217	0
Number of rights (for 100% achievement of objectives) on 1 January 2016	50,442	41,649	38,217	0
Additions	0	0	0	32,525
Exercised	50,442	0	0	0
Forfeited	0	182	213	0
Number of rights (for 100% achievement of objectives) on 31 December 2016	0	41,467	38,004	32,525

44 Remuneration report

The members of Munich Reinsurance Company's Board of Management received remuneration totalling €23.1m (23.4m). The total remuneration of Munich Reinsurance Company's Supervisory Board amounted to €2.6m (2.6m); not included in this figure is €0.2m (0.2m) for membership of supervisory boards at other Group companies, so that the overall amount came to €2.8m (2.8m).

Payments to retired members of the Board of Management or their surviving dependants totalled €7.4m (8.6m).

Personnel expenses for pension commitments were not incurred for retired members of the Board of Management. After deduction of plan assets held by a separate entity (under a contractual trust agreement), there were no pension provisions or provisions for comparable benefits for retired members of the Board of Management or their surviving dependants.

There are no pension commitments for former members of the Supervisory Board or their surviving dependants.

The Board members did not receive any cash advances or loans in the 2016 financial year. For their service as employees of the Group, Supervisory Board members received remuneration in the amount of €1.3m (1.3m). There were no significant notifiable transactions between Board members and Munich Re.

All other disclosures on the remuneration and structure of the remuneration system for the Board of Management can be found in the management report under the remuneration report. Information on share trading and shares held by members of the Board of Management and the Supervisory Board is provided in the corporate governance report.

45 Number of staff

The number of staff employed by the Group at year-end totalled 21,077 (21,812) in Germany and 22,351 (21,742) in other countries.

Breakdown of number of staff

	31.12.2016	Prev. year
Reinsurance	12,138	12,041
ERGO	28,744	29,028
Munich Health	2,546	2,485
Total	**43,428**	**43,554**

46 Auditor's fees

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

Breakdown of auditor's fees

€k	2016
Audits of financial statements[1]	–9,436
Other assurance and appraisal services	0
Tax consultancy services	–2,235
Other services	–4,597
Total	**–16,267**

1 Thereof fees totalling €9,342k for KPMG Bayerische Treuhandgesellschaft AG Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft.

The German public auditor responsible for carrying out the audit within the meaning of Section 24a (2) of the Professional Statutes of German Accountants/Certified Auditors (Berufssatzung WP/vBP) is Dr. Frank Ellenbürger. He first took charge of the audit of the Company and Group financial statements for the financial year ending 31 December 2013.

47 Contingent liabilities, other financial commitments

Munich Re enters into contingent liabilities in connection with its normal business operations. In this context, the obligations from guarantees total €2m (1m) and those from legal disputes €31m (42m). There are other contingent liabilities amounting to €28m (12m). Furthermore, there is a contingent liability of £20m (20m) from our investments in associates and joint ventures. These concerned a payment obligation in the event of an associate's over-indebtedness.

Estimates and judgements are necessary for contingent liabilities where the likely impact cannot be clearly determined. This is the case, for example, with respect to contingent liabilities in legal disputes. Like the evaluation process for other provisions, the assessment is made by experts in the affected units on the basis of the best estimate. Contingent liabilities are stated unless the experts estimate that the possibility of an outflow of resources is remote.

ERGO companies have assumed unlimited liability for the sale of insurance products by insurance intermediaries acting exclusively on their behalf. In this respect, there is a risk of a claim being made by customers. In case of a claim, there is a general possibility of recourse against the insurance intermediary or the latter's fidelity guarantee insurance carrier.

The application of fiscal regulations may yet be unresolved at the time of calculation of tax refund claims and tax liabilities. The calculation of tax items is based on the regulations most likely to be applied in each case. Regardless of this, the tax authorities may take a different view, which may give rise to additional tax liabilities.

In accordance with the German Insurance Supervision Act (VAG), all German life and health insurers of our Group are obliged to be members of a protection fund. For life insurers, the protection fund can levy special contributions of up to one per mille of total net technical provisions, in addition to a regular contribution of 0.2 per mille of total net technical provisions. For the health insurers, there is no pre-financing, but the fund may levy special contributions of up to two per mille of net technical provisions to fulfil its functions. This could give rise to a potential payment obligation of €149m (146m) 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.

Besides this, Munich Re has entered into various other financial obligations amounting to €380m (348m) for work and service contracts and €1,265m (1,439m) for investment obligations, of which €79m (98m) is from our investments in joint ventures. At the reporting date, there were loan commitments amounting to €1,029m (580m). These figures represent undiscounted nominal amounts. There are other financial commitments amounting to €7m (7m).

There are no other financial commitments of significance for the assessment of Munich Re's financial position. No contingent liabilities have been entered into for the benefit of Board members.

48 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 or of bank liabilities with non-financial assets.

Individual national regulations require that assets held to cover insurance liabilities be managed separately. In principle, there are special supervisory regulations governing access to these assets and their use.

In addition, we are subject to supervisory requirements that may restrict dividend payments or other capital distributions, loans and advance payments within the Group.

Our subsidiary Munich American Reassurance Company shows a negative earned surplus in its local financial statements as at 31 December 2016 (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.

Our companies based in Greece are subject to the capital controls introduced in 2015, and are required to go through the relevant approval processes when transferring assets.

49 Leasing

Munich Re as lessee The operating leases mainly concern offices and business premises of the Group, IT infrastructure, and land. They include extension options as well as restrictions regarding the agreement of subleases. In the period under review, minimum lease payments of €104m (108m) and contingent lease payments of €10m (9m) were recognised as an expense.

Future minimum lease payments under operating leases

€m	31.12.2016	Prev. year
Up to one year	97	87
More than one year and up to five years	236	233
More than five years	162	160
Total	**495**	**480**

Munich Re as lessor Operating leases mainly involve leased property.

Future minimum lease payments under operating leases

€m	31.12.2016	Prev. year
Up to one year	205	205
More than one year and up to five years	575	514
More than five years	501	415
Total	**1,281**	**1,135**

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

Due dates

	31.12.2016			Prev. year		
€m	Gross investment	Interest element	Net investment	Gross investment	Interest element	Net investment
Minimum lease payments up to one year	0	0	0	0	0	0
Minimum lease payments of more than one year and up to five years	2	1	1	2	0	2
Minimum lease payments of more than five years	72	56	15	72	56	16
Total minimum lease payments	**74**	**57**	**17**	**74**	**57**	**18**
Unguaranteed residual values	41	34	7	41	35	6
Total	**116**	**91**	**25**	**116**	**92**	**24**

50 Events after the balance sheet date

Under the share buy-back programme decided on by Munich Reinsurance Company's Board of Management in March 2016, we repurchased a further 1.3 million Munich Re shares with a volume of €231m from the balance sheet date to the end of February 2017.

On 1 January 2017, via its subsidiary MR RENT-Investment GmbH, Munich, Munich Re acquired 100% of the voting shares in the wind park company Eolus Vindpark Tolv AB, Hässleholm, Sweden, from Eolus Vindpark Elva AB, Hässleholm, Sweden. Eolus Vindpark Tolv AB was renamed Wind Farm Iglasjön AB immediately after the acquisition, and owns wind power plants with a total installed capacity of 26.4 megawatts.

The acquisition is part of our infrastructure investment strategy (including renewable energies and new technologies).

51 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 be potentially 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

		2016	Prev. year
Consolidated result attributable to Munich Reinsurance Company equity holders	€m	2,580	3,107
Weighted average number of outstanding shares		159,975,155	165,893,895
Earnings per share	€	16.13	18.73

The retrospective adjustment of the previous year's figures did not result in a change to the earnings per share in the previous year (see Recognition and measurement – Changes in accounting policies and other adjustments). The number of outstanding shares decreased by 5,880,298 (5,732,416) over the course of the financial year 2016, essentially owing to the share buy-back programme.

52 Proposal for appropriation of profit

Munich Reinsurance Company's net retained profits for 2016 according to its financial statements prepared on the basis of German GAAP accounting amount to €1,753,507,758.53. 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 €8.60 per dividend-bearing share, with the remaining amount being carried forward to new account.

List of shareholdings as at 31 December 2016 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 and in participating interests (as defined in Section 271 (1) of the German Commercial Code).

Company and registered seat	% share of capital
Consolidated subsidiaries	
13th & F associates Limited Partnership, Washington D.C.	98.0000
40, Rue Courcelles SAS, Paris	100.0000
Adelfa Servicios a Instalaciones Fotovoltaicas S.L., Santa Cruz de Tenerife	100.0000
AEVG 2004 GmbH, Frankfurt[4]	0.0000
AGROTIKI Insurance S.A., Athens	100.0000
ALICE GmbH, Düsseldorf	100.0000
ALLYSCA Assistance GmbH, Munich	100.0000
American Alternative Insurance Corporation, Wilmington, Delaware	100.0000
American Family Home Insurance Company, Jacksonville, Florida	100.0000
American Modern Home Insurance Company, Amelia, Ohio	100.0000
American Modern Home Service Company, Amelia, Ohio	100.0000
American Modern Insurance Company of Florida, Inc., Jacksonville, Florida	100.0000
American Modern Insurance Group, Inc., Amelia, Ohio	100.0000
American Modern Lloyds Insurance Company, Dallas, Texas	100.0000
American Modern Property & Casualty Insurance Company, Cincinnati, Ohio	100.0000
American Modern Select Insurance Company, Amelia, Ohio	100.0000
American Modern Surplus Lines 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
Amicus Legal Ltd., Bristol	100.0000
ArztPartner almeda AG, Munich	100.0000
ATU Landbau GmbH & Co. KG, Heiligengrabe[11]	94.9000
avanturo GmbH, Düsseldorf	100.0000
Bagmoor Holdings Limited, London	100.0000
Bagmoor Wind Limited, London	100.0000
Beaufort Dedicated No.1 Ltd, London	100.0000
Beaufort Dedicated No.2 Ltd, London	100.0000
Beaufort Dedicated No.5 Ltd, London	100.0000
Beaufort Underwriting Agency Limited, London	100.0000
Bell & Clements (Bermuda) Ltd., Hamilton, Bermuda	100.0000
Bell & Clements (London) Ltd, London	100.0000
Bell & Clements (USA) Inc, Reston, Virginia	100.0000

Company and registered seat	% share of capital
Bell & Clements Inc, Reston, Virginia	100.0000
Bell & Clements Ltd, London	100.0000
Bos Incasso B.V., Groningen	89.7640
Calibre Commercial Insurance Pty Ltd, Sydney	90.0000
Calliden Insurance Pty Limited, Sydney	100.0000
Cannock Chase B.V., Leidschendam	100.0000
Cannock Chase Holding B.V., Amsterdam	85.8300
Cannock Chase Purchase B.V., The Hague	100.0000
Cannock Connect Center B.V., Brouwershaven	100.0000
Ceres Demetra GmbH, Munich	100.0000
Comino Beteiligungen GmbH, Grünwald	100.0000
Compagnie Européenne d'Assurances, Paris	100.0000
Corion Pty Limited, Sydney	100.0000
Cornwall Power (Polmaugan) Limited, London	100.0000
Countryside Renewables (Forest Heath) Limited, London	100.0000
D.A.S. Defensa del Automovilista y de Siniestros – Internacional, S.A. de Seguros y Reaseguros, Barcelona	100.0000
D.A.S. HELLAS Allgemeine Rechtsschutz-Versicherungs-AG, Athens	100.0000
D.A.S. Jogvédelmi Biztosíto Részvénytársaság, Budapest	100.0000
D.A.S. Luxemburg Allgemeine Rechtsschutz-Versicherung S.A., Strassen	100.0000
D.A.S. Oigusabikulude Kindlustuse AS, Tallinn	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	99.9524
Daman Health Insurance – Qatar LLC, Doha, Qatar	100.0000
DAS Assistance Limited, Bristol	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 Legal Protection Insurance Company Ltd., Toronto, Ontario	100.0000
DAS MEDICAL ASSIST LIMITED, Bristol	100.0000
DAS Nederlandse Rechtsbijstand Verzekeringmaatschappij N.V., Amsterdam	100.0000
DAS Rechtsschutz-Versicherungs-AG, Lucerne	100.0000
DAS Services Limited, Bristol	100.0000
DAS UK Holdings Limited, Bristol	100.0000
DB Platinum IV SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I2D), Luxembourg[4]	100.0000

Company and registered seat	% share of capital
DB Platinum IV SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I4D), Luxembourg[4]	100.0000
DB Platinum IV SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I5D), Luxembourg[4]	100.0000
DB Platinum IV SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I6D o.N.), Luxembourg[4]	100.0000
DB Platinum IV SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I7D o.N.), Luxembourg[4]	100.0000
DB Platinum IV SICAV (Subfonds Institutional Fixed Income, Inhaber-Anteile I8D o.N.), Luxembourg[4]	100.0000
DKV BELGIUM S.A., Brussels	100.0000
DKV Deutsche Krankenversicherung Aktiengesellschaft, Cologne	100.0000
DKV Pflegedienste & Residenzen GmbH, Cologne	100.0000
DKV Seguros y Reaseguros, Sociedad Anónima Española, Zaragoza	100.0000
E&S Claims Management Inc., Reston, Virginia	100.0000
EIG, Co., Wilmington, Delaware	100.0000
ERGO ASIGURARI DE VIATA SA, 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 DIREKT Krankenversicherung AG, Fürth	100.0000
ERGO DIREKT Lebensversicherung AG, Fürth	100.0000
ERGO DIREKT Versicherung AG, Fürth	100.0000
ERGO Életbiztosító Zrt., Budapest	100.0000
ERGO Elfte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
ERGO General Insurance Company S.A., Athens	100.0000
ERGO Generales Seguros y Reaseguros, S.A., Madrid	100.0000
ERGO Group AG, Düsseldorf	100.0000
ERGO Grubu Holding A.Ş., Istanbul	100.0000
ERGO Grundstücksverwaltung GbR, Düsseldorf	100.0000
ERGO Insurance Company, St. Petersburg	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 Lebensversicherung Aktiengesellschaft, Hamburg	100.0000
ERGO Life Insurance Company S.A., Thessaloniki	100.0000
ERGO Life Insurance SE, Vilnius	100.0000
ERGO Neunte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
ERGO osiguranje d.d., Zagreb	100.0000
ERGO Partners N.V., Brussels	100.0000
ERGO Pensionsfonds Aktiengesellschaft, Düsseldorf	100.0000
ERGO Pensionskasse AG, Düsseldorf	100.0000
ERGO Poist'ovna, a. s., Bratislava	100.0000
ERGO pojist'ovna, a.s., Prague	100.0000
ERGO Private Capital Dritte GmbH & Co. KG, Düsseldorf	100.0000
ERGO Private Capital Gesundheit GmbH & Co. KG, Düsseldorf	100.0000
ERGO Private Capital Komposit GmbH & Co. KG, Düsseldorf	100.0000
ERGO Private Capital Leben GmbH & Co. KG, Düsseldorf	100.0000

Company and registered seat	% share of capital
ERGO Private Capital Vierte GmbH & Co. KG, Düsseldorf	100.0000
ERGO Private Capital Zweite GmbH & Co. KG, Düsseldorf	100.0000
ERGO SIGORTA A.S., Istanbul	100.0000
ERGO Versicherung Aktiengesellschaft, Düsseldorf	100.0000
ERGO Versicherung Aktiengesellschaft, Vienna	98.8368
ERGO Vida Seguros y Reaseguros, Sociedad Anónima, Zaragoza	100.0000
ERGO Zivljenjska zavarovalnica d.d., Ljubljana	100.0000
ERGO Zivotno osiguranje d.d., Zagreb	100.0000
ERV Evropská pojišťovna, a. s., Prague	90.0000
ERV Försäkringsaktiebolag (publ), Stockholm	100.0000
Europaeiske Rejseforsikring A/S, Copenhagen	100.0000
EUROPÄISCHE Reiseversicherung Aktiengesellschaft, Munich	100.0000
Everything Legal Ltd., Bristol	100.0000
FAIRANCE GmbH, Düsseldorf	100.0000
Flexitel Telefonservice GmbH, Berlin	100.0000
Forst Ebnath AG, Ebnath	100.0000
FOTOUNO S.r.l., Bressanone	100.0000
FOTOWATIO ITALIA GALATINA S.r.l., Bressanone	100.0000
Fundo Invest Exclusivo referenciado di Munich Re Brasil, São Paulo[4]	98.2000
GF 65, Vienna[4]	100.0000
Global Standards, LLC, Dover, Delaware	100.0000
Globality S.A., Luxembourg	100.0000
Great Lakes Insurance SE, Munich	100.0000
Group Risk Services Limited, London	100.0000
Groves, John & Westrup Limited, London	100.0000
Habiriscos – Investimentos Imobiliarios e Turisticos, S.A., Lisbon	100.0000
Hartford Steam Boiler (M) Sdn. Bhd., Kuala Lumpur	100.0000
Hartford Steam Boiler (Singapore) PTE Ltd, Singapore	100.0000
Hartford Steam Boiler International GmbH, Rheine	100.0000
HMV GFKL Beteiligungs GmbH, Düsseldorf	100.0000
HSB Brasil Servicos de Engenharia e Inspecao, Ltda., São Paulo	100.0000
HSB Engineering Finance Corporation, Dover, Delaware	100.0000
HSB Engineering Insurance Limited, London	100.0000
HSB Engineering Insurance Services Limited, London	100.0000
HSB Group, Inc., Dover, Delaware	100.0000
HSB International (India) Private Limited, Gujarat	100.0000
HSB Japan KK, Minato-KU, Tokyo	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) Company, Ltd, Shanghai	100.0000
Ibero Property Portugal – Investimentos Imobiliarios S.A., Lisbon	100.0000
Ibero Property Trust S.A., Madrid	100.0000
IDEENKAPITAL Financial Engineering GmbH, Düsseldorf	100.0000
IDEENKAPITAL Financial Service GmbH i. L., Düsseldorf	100.0000
IDEENKAPITAL GmbH, Düsseldorf	100.0000
IDEENKAPITAL Media Finance GmbH, Düsseldorf	50.1000

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	63.5708
Imofloresmira – Investimentos Imobiliarios S.A., Lisbon	100.0000
Insurance Company “ERGO Life” Ltd., Moscow	100.0000
IRIS Capital Fund II German Investors GmbH & Co. KG, Düsseldorf	85.7143
ITERGO Informationstechnologie GmbH, Düsseldorf	100.0000
Joint Stock Insurance Company ERGO, Minsk	92.3114
JSC “ERV Travel Insurance”, Moscow	100.0000
K & P Pflegezentrum Uelzen IMMAC Renditefonds GmbH & Co. KG, Düsseldorf	84.8445
KA Köln.Assekuranz Agentur GmbH, Cologne	100.0000
Kapdom-Invest GmbH, Moscow	100.0000
KS SPV 23 Limited, London	100.0000
Landelijke Associatie van Gerechtsdeurwaarders B.V., Groningen[4]	89.7640
LEGIAL AG, Munich	100.0000
Lietuva Demetra GmbH, Munich	100.0000
LifePlans Inc., Waltham, Massachusetts	100.0000
LifePlans LTC Services, Inc., Toronto, Ontario	100.0000
Lloyds Modern Corporation, Dallas, Texas	100.0000
Longial GmbH, Düsseldorf	100.0000
Lynt Farm Solar Limited, London	100.0000
MAGAZ FOTOVOLTAICA S.L.U., Alcobendas	100.0000
Mandaat B.V., Druten	100.0000
Marina Salud S.A., Alicante	65.0000
Marina Sp.z.o.o., Sopot	100.0000
MEAG ANGLO CELTIC Fund, Munich[4]	100.0000
MEAG ATLAS, Munich[4]	100.0000
MEAG Benedict, Munich[4]	100.0000
MEAG Cash Management GmbH, Munich	100.0000
MEAG EDK Quantum, Munich[4]	100.0000
MEAG EDL CurryGov, Munich[4]	100.0000
MEAG EDL EuroValue, Munich[4]	100.0000
MEAG EDS AGIL, Munich[4]	100.0000
MEAG ERGO Belgium Equities, Munich[4]	100.0000
MEAG ESUS 1, Munich[4]	100.0000
MEAG EUR Global 1, Munich[4]	100.0000
MEAG Euro 1, Munich[4]	100.0000
MEAG Euro 2, Munich[4]	100.0000
MEAG EURO-FONDS, Munich[4]	100.0000
Meag Eurostar (Spezialfonds), 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

Company and registered seat	% share of capital
MEAG German Prime Opportunities (GPO), Munich[4]	100.0000
MEAG Golf 1, 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 IREN, Munich[4]	100.0000
MEAG Janus, Munich[4]	100.0000
MEAG Kapital 2, Munich[4]	100.0000
MEAG Kapital 5, Munich[4]	100.0000
MEAG Lambda EUR EM Local, Munich[4]	100.0000
MEAG Lambda EUR, Grünwald[4]	100.0000
MEAG Lambda GBP, Grünwald[4]	100.0000
MEAG Lambda USD, Grünwald[4]	100.0000
MEAG Multi Life, Munich[4]	100.0000
MEAG Multi Sach 1, Munich[4]	100.0000
MEAG MUNICH ERGO AssetManagement GmbH, Munich	100.0000
MEAG MUNICH ERGO Kapitalanlagegesellschaft mbH, Munich	100.0000
MEAG Munich Re Placement, Grünwald[4]	100.0000
MEAG New York Corporation, Wilmington, Delaware	100.0000
MEAG PEGASUS, Munich[4]	100.0000
MEAG Pensionskasse Nord, Munich[4]	100.0000
MEAG Pensionskasse West, Munich[4]	100.0000
MEAG Premium, Munich[4]	100.0000
MEAG Prof III Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
MEAG Property Fund I, Munich[4]	100.0000
MEAG Property Fund III, Munich[4]	100.0000
MEAG RenditePlus, Munich[4]	100.0000
MEAG REVO, Munich[4]	100.0000
MEAG SAG 1, Munich[4]	100.0000
Meag Tandem (Spezialfonds), 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 Vigifonds, Munich[4]	100.0000
MEAG VLA, Munich[4]	100.0000
MedNet Holding GmbH, Munich	100.0000
MedWell Gesundheits-AG, Cologne	100.0000
Merkur Grundstücks- und Beteiligungs-Gesellschaft mit beschränkter Haftung, Düsseldorf	100.0000
Meshify Inc., Houston	100.0000
MFI Munich Finance and Investment Holding Ltd., Ta' Xbiex	100.0000
MFI Munich Finance and Investment Ltd., Ta' Xbiex	100.0000
Midland-Guardian Co., Amelia, Ohio	100.0000
Midwest Enterprises, Inc., Miami, Florida	100.0000
MR Beteiligungen 1. GmbH, Munich[3]	100.0000
MR Beteiligungen 16. GmbH, Munich[3]	100.0000
MR Beteiligungen 17. GmbH, Munich	100.0000
MR Beteiligungen 18. GmbH & Co. Immobilien KG, Grünwald[2]	100.0000
MR Beteiligungen 19. GmbH, Munich	100.0000

Company and registered seat	% share of capital
MR Beteiligungen 2. EUR AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen 3. EUR AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen EUR AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen GBP AG & Co. KG, Grünwald[2]	100.0000
MR Beteiligungen USD AG & Co. KG, Grünwald[2]	100.0000
MR ERGO Beteiligungen GmbH, Grünwald	100.0000
MR Infrastructure Investment GmbH, Munich	100.0000
MR RENT UK Investment Limited, London	100.0000
MR RENT-Investment GmbH, Munich	100.0000
MR Solar GmbH & Co. KG, Nuremberg	100.0000
MR SOLAR SAS DER WELIVIT SOLAR ITALIA SRL, Bolzano	100.0000
MSP Underwriting Ltd., London	100.0000
MU068 MR Placem (FCP), Munich[4]	100.0000
Munich American Holding Corporation, Wilmington, Delaware	100.0000
Munich American Life Reinsurance Company, Atlanta, Georgia	100.0000
Munich American Reassurance Company, Atlanta, Georgia	100.0000
Munich Atlanta Financial Corporation, Atlanta, Georgia	100.0000
Munich Health Alpha GmbH, Munich[3]	100.0000
Munich Health Daman Holding Ltd., Abu Dhabi	51.0000
Munich Health Holding AG, Munich[3]	100.0000
Munich Health North America, Inc., Wilmington, Delaware	100.0000
Munich Holdings Ltd., Toronto, Ontario	100.0000
Munich Holdings of Australasia Pty. Ltd., Sydney	100.0000
Munich Life Management Corporation Ltd., Toronto, Ontario	100.0000
Munich Mauritius Reinsurance Co. Ltd., Port Louis	100.0000
Munich Re America Corporation, Wilmington, Delaware	100.0000
Munich Re America Services Inc., Wilmington, Delaware	100.0000
Munich Re Automation Solutions Limited, Dublin	100.0000
Munich Re Capital Limited, London	100.0000
Munich Re do Brasil Resseguradora S.A., São Paulo	100.0000
Munich Re Holding Company (UK) Ltd., London	100.0000
Munich Re Life Insurance Company of Vermont, Burlington, Vermont	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 Reserve Risk Financing, Inc., Dover, Delaware	100.0000
Munich Re Service Corp., Toronto	100.0000
Munich Re Stop Loss, Inc., Wilmington, Delaware	100.0000
Munich Re Syndicate Hong Kong Ltd., Hong Kong	67.0000
Munich Re Syndicate Labuan Limited, Labuan	100.0000
Munich Re Syndicate Limited, London	100.0000
Munich Re Syndicate Middle East Ltd., Dubai	100.0000
Munich Re Syndicate Singapore Ltd., Singapore	100.0000
Munich Re Trading LLC, Wilmington, Delaware	100.0000
Munich Re UK Services Limited, London	100.0000
Munich Re Weather & Commodity Risk Holding, Inc., Wilmington, Delaware	100.0000
Munich Reinsurance America, Inc., Wilmington, Delaware	100.0000

Company and registered seat	% share of capital
Munich Reinsurance Company of Africa Ltd, Johannesburg	100.0000
Munich Reinsurance Company of Australasia Ltd, Sydney	100.0000
Munich Reinsurance Company of Canada, Toronto, Ontario	100.0000
MunichFinancialGroup GmbH, Munich	100.0000
Munichre General Services Limited, London	100.0000
Munichre New Zealand Service Ltd., Auckland	100.0000
N.M.U. (Holdings) Limited, Leeds	100.0000
Neckermann Versicherung AG, Nuremberg	100.0000
New Reinsurance Company Ltd., Zurich	100.0000
Nightingale Legal Services Ltd., Bristol	100.0000
NMU Group Limited, London	100.0000
Northern Marine Underwriters Limited, Leeds	100.0000
OIK Mediclin, Wiesbaden[4]	70.7073
Pan Estates LLC, Wilmington, Delaware	100.0000
Princeton Eagle West (Holding) Inc., Wilmington, Delaware	100.0000
Princeton Eagle West Insurance Company Ltd., Hamilton, Bermuda	100.0000
Private Aktiengesellschaft "Europäische Reiseversicherung", Kiev	99.9999
Renaissance Hotel Realbesitz GmbH, Vienna	60.0000
Roanoke Group Inc., Schaumburg, Illinois	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 (No. 2) Limited, London	100.0000
Scout Moor Wind Farm Limited, London	100.0000
Silvanus Vermögensverwaltungsges. mbH, Munich	100.0000
Solarpark Fusion 3 GmbH, Düsseldorf	100.0000
Solomon Associates Limited, Farnborough	100.0000
Sopockie Towarzystwo Ubezpieczen Ergo Hestia Spolka Akcyjna, Sopot	100.0000
Sopockie Towarzystwo Ubezpieczen na Zycie Ergo Hestia Spolka Akcyjna, Sopot	100.0000
Specialty Insurance Services Corp., Amelia, Ohio	100.0000
SunEnergy & Partners S.r.l., Bressanone	100.0000
Temple Insurance Company, Toronto, Ontario	100.0000
The Atlas Insurance Agency, Inc., Amelia, Ohio	100.0000
The Boiler Inspection and Insurance Company of Canada, Toronto, Ontario	100.0000
The Hartford Steam Boiler Inspection and Insurance Company of Connecticut, Hartford, Connecticut	100.0000
The Hartford Steam Boiler Inspection and Insurance Company, Hartford, Connecticut	100.0000
The Midland Company, Cincinnati, Ohio	100.0000
The Polytechnic Club, Inc., Hartford, Connecticut	100.0000
The Princeton Excess and Surplus Lines Insurance Company, Wilmington, Delaware	100.0000
Tir Mostyn and Foel Goch Limited, London	100.0000
UAB Agrofondas, Vilnius	100.0000
UAB Agrolaukai, Vilnius	100.0000

Company and registered seat	% share of capital
UAB Agrovalda, Vilnius	100.0000
UAB Agrovesta, Vilnius	100.0000
UAB G.Q.F., Vilnius	100.0000
UAB Sietuve, Vilnius	100.0000
UAB Ukelis, Vilnius	100.0000
UAB Vasaros Brizas, 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 1, Vilnius	100.0000
UAB VL Investment Vilnius 10, 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, Vilnius	100.0000
UK Wind Holdings Ltd, London	100.0000
Unión Médica la Fuencisla, S.A., Compañía de Seguros, Zaragoza	100.0000
US PROPERTIES VA GmbH & Co. KG, Düsseldorf[4]	46.0939
Van Arkel Gerechtsdeurwaarders B.V., Leiden[4]	100.0000
VHDK Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
VICTORIA Asien Immobilienbeteiligungs GmbH & Co. KG, Munich	100.0000
VICTORIA Italy Property GmbH, Düsseldorf	100.0000
VICTORIA Lebensversicherung Aktiengesellschaft, Düsseldorf	100.0000
VICTORIA US Property Investment GmbH, Düsseldorf	100.0000
VICTORIA Vierte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
Victoria Vierter Bauabschnitt GmbH & Co. KG, Düsseldorf	100.0000
Vorsorge Lebensversicherung Aktiengesellschaft, Düsseldorf	100.0000
VORSORGE Luxemburg Lebensversicherung S.A., Grevenmacher	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[4]	50.0000
Wind Farms Götaland Svealand AB, Hässleholm	100.0000
Wind Farms Västra Götaland AB, Hässleholm	100.0000
Windpark MR-B GmbH & Co. KG, Bremen[2]	100.0000
Windpark MR-D GmbH & Co. KG, Bremen[2]	100.0000
Windpark MR-N gmbH & Co. KG, Bremen[2]	100.0000
Windpark MR-S GmbH & Co. KG, Bremen[2]	100.0000
Windpark MR-T GmbH & Co.KG, Bremen[2]	100.0000
wse Solarpark Spanien 1 GmbH & Co. KG, Düsseldorf	75.1243
X-Pact B.V., The Hague	62.5000
Unconsolidated subsidiaries	
80e LIMITED, Bristol	100.0000
ADVIA NV, Schoten	80.0000
Aleama 150015 S.L., Valencia	100.0000

Company and registered seat	% share of capital
Amicus Ltd., Bristol	100.0000
ANOVA GmbH, Rostock	100.0000
Arridabra 130013 S.L., Valencia	100.0000
ARTES Assekuranzservice GmbH, Düsseldorf	100.0000
B&D Business Solutions B.V., Utrecht	100.0000
Badozoc 1001 S.L., Valencia	100.0000
Bank Austria Creditanstalt Versicherungsdienst GmbH, Vienna	100.0000
Baqueda 7007 S.L., Valencia	100.0000
Beaufort Dedicated No.3 Ltd, London	100.0000
Beaufort Dedicated No.4 Ltd, London	100.0000
Beaufort Dedicated No.6 Ltd, London	100.0000
Beaufort Underwriting Services Limited, London	100.0000
Bobasbe 6006 S.L., Valencia	100.0000
Botedazo 8008 S.L., Valencia	100.0000
Callopio 5005 S.L., Valencia	100.0000
Camcichu 9009 S.L., Valencia	100.0000
Cannock Chase Incasso II B.V., The Hague	100.0000
CAPITAL PLAZA Holding GmbH, Düsseldorf	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
Centrum Pomocy Osobom Poszkodowanym Sp. z o.o., Gdansk	100.0000
Copper Leaf Research, Bingham Farms, Michigan	100.0000
Cotatrillo 100010 S.L., Valencia	100.0000
D.A.S. Prawo i Finanse Sp. z o.o., Warsaw	100.0000
D.A.S. Rechtsschutz Leistungs-GmbH, Munich	100.0000
D.A.S., Tomasz Niedzinski Kancelaria Prawna Spolka komandytowa, Warsaw	95.0000
DAS America Legal Protection Insurance Agency Ltd., Wilmington, Delaware	100.0000
DAS Financial Services B.V., Amsterdam	51.0000
DAS Incasso Arnhem B.V., Elst	100.0000
DAS Incasso Eindhoven B.V., The Hague	100.0000
DAS Incasso Rotterdam B.V., Rotterdam	100.0000
DAS Legal Protection Ireland Limited, Dublin	100.0000
DAS Legal Protection Limited, Christchurch, New Zealand	100.0000
DAS Legal Protection Limited, Vancouver, British Columbia	100.0000

Company and registered seat	% share of capital
DAS Legal Protection Pty. Ltd., Sydney	100.0000
DAS Legal Services B.V., Amsterdam	100.0000
DAS Lex Assistance, S.L., L'Hospitalet de Llobregat	100.0000
DKV Servicios, S.A. , Zaragoza	100.0000
DKV-Residenz am Tibusplatz gGmbH, Münster	100.0000
DKV-Residenz in der Contrescarpe GmbH, Bremen	100.0000
DRA Debt Recovery Agency B.V., The Hague	100.0000
Economic Data Resources B.V., The Hague	100.0000
ERGO Alpha GmbH, Düsseldorf	100.0000
ERGO Asia Management Pte. Ltd., Singapore	100.0000
ERGO Deutschland AG, Düsseldorf	100.0000
ERGO Digital IT GmbH, Berlin	100.0000
ERGO Digital Ventures AG, Düsseldorf	100.0000
ERGO Fund Golden Aging, Brussels[4]	100.0000
ERGO GmbH, Steinhausen	100.0000
ERGO Gourmet GmbH, Düsseldorf	100.0000
ERGO Immobilien-Verwaltungs-GmbH, Kreien	100.0000
ERGO Infrastructure Investment Gesundheit GmbH, Düsseldorf	100.0000
ERGO Infrastructure Investment Komposit GmbH, Düsseldorf	100.0000
ERGO Infrastructure Investment Leben GmbH, Düsseldorf	100.0000
ERGO Infrastructure Investment Pensionskasse GmbH, Düsseldorf	100.0000
ERGO Infrastructure Investment Victoria Leben GmbH, Düsseldorf	100.0000
ERGO Leben Asien Verwaltungs GmbH, Munich	100.0000
ERGO Private Capital GmbH, Düsseldorf	100.0000
ERGO PRO S.r.l., Verona	100.0000
ERGO Pro Sp. z o.o., Warsaw	100.0000
ERGO Pro, spol. s r.o., Prague	100.0000
ERGO Versicherungs- und Finanzierungs-Vermittlung GmbH, Hamburg	100.0000
ERGO Zehnte Beteiligungsgesellschaft mbH, Düsseldorf	100.0000
ERGO Zwölfte Beteiligungsgesellschaft mbH, Munich	100.0000
ERV (China) Travel Service and Consulting Ltd., Beijing	100.0000
ERV (India) Travel Service and Consulting Private Limited, Mumbai	99.9999
ERV Seyahat Sigorta Aracilik Hizmetleri ve Danismanlik Ltd.Sti., Istanbul	99.9980
Etics, s.r.o., Prague	100.0000
Etoblete 160016 S.L., Valencia	100.0000
Euro-Center (Cyprus) Ltd., Larnaca	100.0000
Euro-Center (Thailand) Co. Ltd., Bangkok	100.0000
Euro-Center Cape Town (Pty.) Ltd., Cape Town	100.0000
Euro-Center Holding North Asia (HK) Pte. Ltd., Hong Kong	100.0000
Euro-Center Holding SE, Prague	83.3331
Euro-Center Ltda., São Paulo	100.0000
Euro-Center North Asia Consulting Services (Beijing) Co., Ltd., Beijing	100.0000
Euro-Center Prague, s.r.o., Prague	100.0000
Euro-Center USA, Inc., New York City, New York	100.0000
Euro-Center Yerel Yardim, Istanbul	100.0000
Euro-Center, S.A. (Spain), Palma de Mallorca	100.0000
Europäische (UK) Ltd., London	100.0000
European Assistance Holding GmbH, Munich	100.0000
Evaluación Médica TUW, S.L., Barcelona	100.0000
Exolvo GmbH, Hamburg	100.0000
First Legal Protection Limited, Bristol	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
goMedus Gesellschaft für Qualität in der Medizin mbH, Cologne	100.0000
goMedus GmbH & Co. KG, Cologne	100.0000
GRANCAN Sun-Line S.L., Valencia	100.0000
Great Lakes Re Management Company (Belgium) S.A., Brussels	100.0000
Group Risk Technologies Ltd., London	100.0000
Guanzu 2002 S.L., Valencia	100.0000
Hamburger Hof Management GmbH, Hamburg	100.0000
Hamburg-Mannheimer ForsikringService A/S, Copenhagen	100.0000
Hartford Steam Boiler Colombia Ltda, Bogota	100.0000
Hartford Steam Boiler UK Limited, Salford	100.0000
Hestia Loss Control Sp. z o.o., Sopot	100.0000
HK2 GmbH, Münster	51.0000
Horbach GmbH Versicherungsvermittlung und Finanzdienstleistungen, Düsseldorf	70.1000
HSB Associates, Inc., New York, New York	100.0000
HSB Secure Services, Inc., Hartford, Connecticut	100.0000
HSB Ventures, Inc., Dover, Delaware	100.0000
IDEENKAPITAL Anlagebetreuungs GmbH, Düsseldorf	100.0000
Ideenkapital Client Service GmbH, Düsseldorf	100.0000
Ideenkapital erste Investoren Service GmbH, Düsseldorf	100.0000
Ideenkapital Fonds Treuhand GmbH, Düsseldorf	100.0000
Ideenkapital Media Treuhand GmbH, Düsseldorf	100.0000
IDEENKAPITAL Metropolen Europa Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
IDEENKAPITAL PRORENDITA EINS Treuhandgesellschaft mbH, Düsseldorf	100.0000
IDEENKAPITAL Schiffsfonds Treuhand GmbH, Düsseldorf	100.0000
Ideenkapital Treuhand US Real Estate eins GmbH, Düsseldorf	100.0000
IK Einkauf Objektverwaltungsgesellschaft mbH, Düsseldorf	100.0000
IK Einkaufsmärkte Deutschland Verwaltungsgesellschaft mbH, Düsseldorf	100.0000
IK FE Fonds Management GmbH, Düsseldorf	100.0000
IK Komp GmbH, Düsseldorf	100.0000
IK MEGA 4 Service GmbH, Düsseldorf	100.0000
IK Objekt Bensheim GmbH, Düsseldorf	100.0000
IK Objekt Frankfurt Theodor-Heuss-Allee GmbH, Düsseldorf	100.0000
IK Pflegezentrum Uelzen Verwaltungs-GmbH, Düsseldorf	100.0000
IK Property Eins Verwaltungsgesellschaft mbH, Hamburg	100.0000

Company and registered seat	% share of capital
IK Property Treuhand GmbH, Düsseldorf	100.0000
IK US Portfolio Invest DREI Verwaltungs-GmbH, Düsseldorf	100.0000
IK US Portfolio Invest Verwaltungs-GmbH, Düsseldorf	100.0000
IK US Portfolio Invest ZWEI Verwaltungs-GmbH, Düsseldorf	100.0000
Janus Vermögensverwaltungsgesellschaft mbH, Munich	100.0000
Jogszerviz Kft., Budapest	100.0000
Junos Verwaltungs GmbH, Munich	100.0000
JUSTIS Sàrl, Etoy	100.0000
K & P Objekt Hamburg Hamburger Straße GmbH, Düsseldorf	100.0000
K & P Objekt Hamburg Hamburger Straße Immobilienfonds GmbH & Co.KG, Düsseldorf[4]	36.6889
K & P Objekt München Hufelandstraße GmbH, Düsseldorf	100.0000
KQV Solarpark Franken 1 GmbH & Co. KG, Düsseldorf	100.0000
Kuik & Partners Credit Management BVBA, Brussels	98.9000
Larus Vermögensverwaltungsgesellschaft mbH, Munich	100.0000
Law On The Web Limited, Bristol	100.0000
LawAssist Limited, Bristol	100.0000
Legal Net GmbH, Munich	100.0000
Leggle B.V., Amsterdam	100.0000
m:editerran Power S.a.s. di welivit Solar Italia S.r.l., Bolzano	100.0000
MAM Munich Asset Management GmbH, Munich	100.0000
Marbury Agency, Inc., Amelia, Ohio	100.0000
MAYFAIR Financing GmbH, Munich	100.0000
MAYFAIR Holding GmbH i. L., Düsseldorf	100.0000
MEAG Dividende (A+I Tranche), Munich[4]	88.9010
MEAG EmergingMarkets Rent (A+I Tranche), Munich[4]	98.7465
MEAG FlexConcept – EuroGrowth, Luxembourg[4]	100.0000
MEAG GlobalRent (A+I Tranche), Munich[4]	99.6325
MEAG Hong Kong Limited, Hong Kong	100.0000
MEAG Luxembourg S.à r.l., Luxembourg	100.0000
MEAG Osteuropa A, Munich[4]	40.4926
MEAG Pension Rent, Munich[4]	29.8958
MEAG Pension Safe, Munich[4]	68.9365
MEAG Real Estate Erste Beteiligungsgesellschaft, Munich	100.0000
MEAG RealReturn Inhaber-Anteile A, Munich[4]	47.5162
MEAG Short-Term High Yield, Munich[4]	100.0000
MEAG Vermögensanlage Komfort, Munich[4]	49.2109
MEAG Vermögensanlage Return (A+I Tranche), Munich[4]	72.7201
Mediastream Consulting GmbH, Grünwald	100.0000
Mediastream Dritte Film GmbH i. L., Grünwald	100.0000
Mediastream Film GmbH, Grünwald	100.0000
Mediastream Zweite Film GmbH, Grünwald	100.0000
MedNet Bahrain W.L.L., Manama	100.0000
MedNet Egypt LLC, Cairo	100.0000
MedNet Europa GmbH, Munich	100.0000
MedNet Global Healthcare Solutions LLC, Dubai	100.0000
MedNet Greece S.A., Athens	78.1419
MedNet International Ltd., Nicosia	100.0000
Mednet Jordan C. W.L.L., Amman	100.0000

Company and registered seat	% share of capital
MedNet Saudi Arabia LLC, Riyadh	100.0000
MedNet UAE FZ L.L.C., Dubai	100.0000
MEGA 4 Management GmbH i. L., Düsseldorf	100.0000
miCura Pflegedienste Berlin GmbH, Berlin	100.0000
miCura Pflegedienste Bremen GmbH, Bremen	100.0000
miCura Pflegedienste Düsseldorf GmbH, Düsseldorf	100.0000
miCura Pflegedienste GmbH, Cologne	100.0000
miCura Pflegedienste Hamburg GmbH, Hamburg	100.0000
miCura Pflegedienste Krefeld GmbH, Krefeld	100.0000
miCura Pflegedienste München/Dachau GmbH, Dachau	51.0000
miCura Pflegedienste München GmbH i. L., Munich	100.0000
miCura Pflegedienste München Ost GmbH, Munich	65.0000
miCura Pflegedienste Münster GmbH, Münster	100.0000
miCura Pflegedienste Nürnberg GmbH, Nuremberg	51.0000
MR Beteiligungen 15. GmbH, Munich	100.0000
MR Beteiligungen 18. GmbH, Grünwald	100.0000
MR Beteiligungen AG, Grünwald	100.0000
MR Digital Innovation Partners Insurance Agency, LLC, Columbus, Ohio[4]	0.0000
MR Financial Group GmbH, Munich	100.0000
MR Forest GmbH, Munich	100.0000
MR Infrastructure, Inc., Dover, Delaware	100.0000
MR Investment Inc, Dover, Delaware	100.0000
MR RENT-Management GmbH, Munich	100.0000
MR Solar Beneixama GmbH i.L., Nuremberg	100.0000
MRHCUK Dormant No.1 Limited, London	100.0000
Münchener Consultora Internacional S.R.L., Santiago de Chile	100.0000
Münchener de Argentina Servicios Técnicos S. R. L., Buenos Aires	100.0000
Münchener de México S. A., Mexico	100.0000
Münchener de Venezuela C.A. Intermediaria de Reaseguros, Caracas	100.0000
Münchener Finanzgruppe AG Beteiligungen, Munich	100.0000
Münchener Vermögensverwaltung GmbH, Munich	100.0000
Münchener, ESCRITÓRIO DE REPRESENTACAO DO BRASIL LTDA, São Paulo	100.0000
Munich American Reassurance Company PAC, Inc., Atlanta, Georgia[4]	0.0000
Munich Canada Systems Corporation, Toronto, Ontario	100.0000
Munich Columbia Square Corp., Wilmington, Delaware	100.0000
Munich Management Pte. Ltd., Singapore	100.0000
Munich Re America Brokers, Inc., Wilmington, Delaware	100.0000
Munich Re America Management Ltd., London	100.0000
Munich Re Automation Solutions GmbH, Munich	100.0000
Munich Re Automation Solutions Inc., Wilmington, Delaware	100.0000
Munich Re Automation Solutions KK, Tokyo	100.0000
Munich Re Automation Solutions Pte. Ltd., Singapore	100.0000
Munich Re Automation Solutions Pty Limited, Sydney	100.0000
Munich Re Capital Markets GmbH, Munich	100.0000
Munich Re Digital Partners Limited, London	100.0000
Munich Re Digital Partners US Holding Corporation, Dover, Delaware	100.0000
Munich Re India Services Private Limited, Mumbai	100.0000

Company and registered seat	% share of capital
Munich Re Japan Services K. K., Tokyo	100.0000
Munich Re Jordan LP, Dover, Delaware	100.0000
Munich Re Underwriting Agents (DIFC) Limited, Dubai	100.0000
Munich-American Risk Partners GmbH, Munich	100.0000
Munich-Canada Management Corp. Ltd., Toronto, Ontario	100.0000
MunichFinancialGroup AG Holding, Munich	100.0000
MunichFinancialServices AG Holding, Munich	100.0000
Munichre Service Limited, Hong Kong	100.0000
Naretoblera 170017 S.L., Valencia	100.0000
Nerruze 120012 S.L., Valencia	100.0000
nexible GmbH, Düsseldorf	100.0000
Orrazipo 110011 S.L., Valencia	100.0000
P.A.N. Verwaltungs GmbH, Grünwald	100.0000
PLATINIA Verwaltungs-GmbH, Munich	100.0000
ProContact Sp. z o.o., Gdansk	100.0000
PRORENDITA DREI Verwaltungsgesellschaft mbH, Hamburg	100.0000
PRORENDITA EINS Verwaltungsgesellschaft mbH, Hamburg	100.0000
PRORENDITA Fünf Verwaltungsgesellschaft mbH, Hamburg	100.0000
PRORENDITA VIER Verwaltungsgesellschaft mbH, Hamburg	100.0000
PRORENDITA ZWEI Verwaltungsgesellschaft mbH, Hamburg	100.0000
Reaseguradora de las Américas S. A., Havana	100.0000
Roanoke Trade Insurance Inc., Schaumburg, Illinois	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
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 i. Gr., Munich[11]	100.0000
Sydney Euro-Center Pty. Ltd., Sydney	100.0000
Synkronos Italia SRL, Milan	59.3500
TAS Assekuranz Service GmbH, Frankfurt a. M.	100.0000
TAS Touristik Assekuranzmakler und Service GmbH, Frankfurt a. M.	100.0000
Three Lions Underwriting Ltd., London	100.0000
Tillobesta 180018 S.L., Valencia	100.0000
Triple IP B.V., Amsterdam	100.0000
US PROPERTIES VA Verwaltungs-GmbH, Düsseldorf	100.0000
Vectis Claims Services Ltd., Tel Aviv	75.0000
VFG Vorsorge-Finanzierungsconsulting GmbH, Vienna	100.0000
VICTORIA Immobilien Management GmbH, Munich	100.0000
VICTORIA Immobilien-Fonds GmbH, Düsseldorf	100.0000
VICTORIA US Property Zwei GmbH, Munich	100.0000
Victoria Vierter Bauabschnitt Management GmbH, Düsseldorf	100.0000
Viwis GmbH, Munich	100.0000
Vorsorge Service GmbH, Düsseldorf	100.0000
VV-Consulting Gesellschaft für Risikoanalyse, Vorsorgeberatung und Versicherungsvermittlung GmbH, Vienna	100.0000

Company and registered seat	% share of capital
VV-Consulting Többesügynöki Kft., Budapest	100.0000
welivit New Energy GmbH, Düsseldorf	100.0000
welivit Solar España GmbH, Düsseldorf	100.0000
Welivit Solar Italia s.r.l., Bolzano	100.0000
Windpark Langengrassau Infrastruktur GbR, Bremen	83.3300
WNE Solarfonds Süddeutschland 2 GmbH & Co. KG, Düsseldorf	100.0000
Wohnungsgesellschaft Brela mbH, Hamburg	100.0000
WP Kladrum/Dargelütz GbR, Bremen	61.1000
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
Associates and joint ventures accounted for using the equity method	
Apollo Munich Health Insurance Co. Ltd., Hyderabad	48.7000
Avantha ERGO Life Insurance Company, Mumbai	25.9998
BHS tabletop AG, Selb	28.9134
Consorcio Internacional de Aseguradores de Crédito, S.A., Madrid[5]	15.0353
Consortia Versicherungs-Beteiligungsgesellschaft mbH, Nuremberg	33.7027
D.A.S. Difesa Automobilistica Sinistri, S.p.A. di Assicurazione, Verona	49.9920
DAMAN – National Health Insurance Company, Abu Dhabi	20.0000
EGM Wind SAS, Paris	40.0000
ERGO China Life Insurance Co., Ltd., Jinan, Shandong Province	50.0000
Europai Utazasi Biztosito Rt., Budapest	26.0000
Europäische Reiseversicherungs-Aktiengesellschaft, Vienna	25.0100
GHGH Holdings Inc., Surrey, British Columbia	40.0000
Global Aerospace Underwriting Managers Ltd., London	40.0000
Global Insurance Company, Ho Chi Minh City	43.7500
HDFC ERGO General Insurance Company Ltd., Mumbai	48.6626
HighTech Beteiligungen GmbH und Co. KG i. L., Düsseldorf	23.8882
Invesco MEAG US Immobilien Fonds IV B, Luxembourg	37.1375
KarstadtQuelle Finanz Service GmbH i. L., Düsseldorf	50.0000
King Price Financial Services (Pty) Ltd., Pretoria[5]	15.0000
Marchwood Power Limited, Marchwood	50.0000

Company and registered seat	% share of capital
MAYFAIR Holding GmbH & Co. Singapur KG i. L., Düsseldorf[9]	71.4285
MCAF Verwaltungs-GmbH & Co.KG i. L., Düsseldorf	50.0000
MEAG Pacific Star Holdings Ltd., Hong Kong	50.0000
MEDICLIN Aktiengesellschaft, Offenburg	35.0042
MEGA 4 GbR, Berlin	34.2569
Rendite Partner Gesellschaft für Vermögensverwaltung mbH i. L., Frankfurt/Main	33.3333
RP Vilbeler Fondsgesellschaft mbH i. L., Frankfurt/Main	40.0000
Sana Kliniken AG, Munich	22.4128
SAS Le Point du Jour, Paris	50.0000
Saudi National Insurance Company B.S.C.(c), Manama	22.5000
SEBA Beteiligungsgesellschaft mbH, Nuremberg	48.9966
Storebrand Helseforsikring AS, Oslo	50.0000
Suramericana S.A., Medellín[5]	18.8672
Taunus Holding B.V., Rotterdam	23.1913
Thaisri Insurance Public Company Limited, Bangkok	40.2576
T-Solar Global Operating Assets S.L., Madrid	37.0000
U.S. Property Fund IV GmbH & Co. KG, Munich	21.7286
Vier Gas Investments S.à r.l., Luxembourg	43.7516
VV Immobilien GmbH & Co. United States KG i. L., Munich	28.9515
VV Immobilien GmbH & Co. US City KG i. L., Munich	23.0999
WISMA ATRIA Holding GmbH & Co. Singapur KG i. L., Düsseldorf[9]	65.0000
Associates and joint ventures accounted for at fair value	
“PORT ELISABETH” GmbH & Co. KG, Bramstedt	31.9660
“PORT LOUIS” GmbH & Co. KG, Bramstedt	26.0495
“REISEGARANT” Gesellschaft für die Vermittlung von Insolvenzversicherungen mbH, Hamburg	24.0000
Agricultural Management Services S.r.l., Verona	33.3333
Allianz Pegasus Fonds, Frankfurt/Main	46.0000
Assistance Partner GmbH & Co. KG, Munich	21.6600
carexpert Kfz-Sachverständigen GmbH, Walluf	25.0000
Energie Kapital GmbH & Co. Solarfonds 2 KG, Stadecken-Elsheim	34.4234
Famous Insurance Agency Pty Limited, Sydney	20.0000
Fernkälte Geschäftsstadt Nord Gesellschaft bürgerlichen Rechts, Hamburg	39.9083
Finsure Investments (Private) Limited, Harare	24.5000
GIG City Nord GmbH, Hamburg	20.0000
Hannover Finanz-Umwelt Beteiligungsgesellschaft mbH i. L., Hillerse	20.0000
Hartford Research, LLC, Lewes, Delaware	41.7500
IK Objektgesellschaft Frankfurt Theodor-Heuss-Allee GmbH & Co. KG, Düsseldorf	47.4000
LCM Logistic Center Management GmbH, Hamburg	50.0000
MCAF Management GmbH i. L., Düsseldorf	50.0000
PERILS AG, Zurich[5]	10.0000
POOL Sp. z o.o., Warsaw	33.7500
Residential Builders Underwriting Agency Pty Ltd., Sydney	20.0000
Rural Affinity Insurance Agency Pty Limited, Sydney	50.0000
Sekundi CVBA, Brussels	33.3333

Company and registered seat	% share of capital
Super Home, Inc, Wilmington, Delaware[5]	15.0000
Teko – Technisches Kontor für Versicherungen Gesellschaft mit beschränkter Haftung, Düsseldorf	30.0000
Verwaltungsgesellschaft “PORT ELISABETH” mbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT KELANG” mbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT LOUIS” GmbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT MAUBERT” mbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT MELBOURNE” mbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT MENIER” mbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT MOODY” mbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT MORESBY” mbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT MOUTON” mbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT NELSON” mbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT RUSSEL” GmbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT SAID” GmbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT STANLEY” GmbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT STEWART” mbH, Bramstedt	50.0000
Verwaltungsgesellschaft “PORT UNION” mbH, Bramstedt	50.0000
VisEq GmbH, Grünwald	34.0000
Volksbanken-Versicherungsdienst GmbH, Vienna	25.2319
VV Immobilien Verwaltungs GmbH, Munich	30.0000
VV Immobilien Verwaltungs und Beteiligungs GmbH, Munich	30.0000
Windpark Osterhausen-Mittelhausen Infrastruktur GbR, Bremen[7]	58.9400
WISMA ATRIA Holding GmbH i. L., Düsseldorf	50.0000
Companies included on a pro-rata basis (joint operation pursuant to IFRS 11)	
“Pensionsfonds” des Versorgungswerks MetallRente bei der Allianz Pensionsfonds AG, Stuttgart	17.5000
Shareholdings exceeding 5% of the voting rights in large companies as defined in Section 271 (1) of the German Commercial Code (HGB)	
Admiral Group plc, Cardiff (equity: €315,487k; result for year: €356,637k)	10.0577
Extremus Versicherungs-Aktiengesellschaft, Cologne (equity: €65,690k; result for year: €500k)	16.0000
Protektor Lebensversicherungs-AG, Berlin (equity: €92,900k; result for year: €1,824k)	10.7597
Saudi Enaya Cooperative Insurance Company, Jeddah (equity: €50,609; result for year: –€12,528k)	15.0000
Wataniya Cooperative Insurance Company, Jeddah (equity: €23,974; result for year: –€3k)	10.0000

Company and registered seat	% share of capital
Other shareholdings as defined in Section 271 (1) of the German Commercial Code (HGB)	
Asia Property Fund II GmbH & Co. KG, Munich (equity: €132,018k; result for year: €314k)	5.8889
Augury, Inc., Wilmington, Delaware[12] (equity: €---; result for year: €---)	2.1500
Bought by Many Limited "BBM", London[12] (equity: €---; result for year: €---)	7.6000
Brookfield Timberlands Fund V, L.P., Wilmington, Delaware (equity: €202,625k; result for year: –€7,319k)	7.9800
CBRE Core Partners Parallel LP, Wilmington, Delaware[8] (equity: €29,693k; result for year: €282k)	99.9000
FIA Timber Partners II L.P., Wilmington, Delaware[8] (equity: €160,951k; result for year: €3,559k)	39.0800
Green Acre LLC, Wilmington, Delaware[8] (equity: €47,437k; result for year: –€1,828k)	31.9361
Hancock Timberland XII LP, Wilmington, Delaware (equity: €80,638k; result for year: €3,515k)	15.1500
Helium Systems, Inc., Dover, Delaware[12] (equity: €---; result for year: €---)	4.6900
Hines India Fund LP, Houston, Texas (equity: €74,003k; result for year: –€31,866k)	11.8333
IK Australia Property Eins GmbH & Co. KG, Hamburg (equity: €13,153k; result for year: €4,173k)	10.6438
IK Objekt Bensheim Immobilienfonds GmbH & Co. KG, Düsseldorf (equity: €12,641k; result for year: –€1,004k)	16.2445
IK US PORTFOLIO INVEST Drei GmbH & Co. KG, Düsseldorf (equity: €31,757k; result for year: €3,408k)	0.0024
IK US Portfolio Invest GmbH & Co. KG, Düsseldorf (equity: €36,017k; result for year: €6,077k)	0.0026
IK US Portfolio Invest ZWEI GmbH & Co. KG, Düsseldorf (equity: €51,970k; result for year: €9,033k)	0.0016
K & P Objekt München Hufelandstraße Immobilienfonds GmbH & Co. KG, Düsseldorf (equity: €379k; result for year: –€10,904k)	0.0489
M 31 Beteiligungsgesellschaft mbH & Co. Energie KG, Düsseldorf (equity: €1,081,264k; result for year: €58,887k)	18.6246
m:solarPOWER GmbH & Co. KG, Düsseldorf (equity: €457k; result for year: €83k)	0.0000
PRORENDITA DREI GmbH & Co. KG, Hamburg (equity: €9,753k; result for year: €1,350k)	0.0260
PRORENDITA EINS GmbH & Co. KG, Hamburg (equity: €8,401k; result for year: €1,066k)	0.0590
PRORENDITA Fünf GmbH & Co. KG, Hamburg (equity: €18,878k; result for year: €260k)	0.0384
PRORENDITA VIER GmbH & Co. KG, Hamburg (equity: €15,992k; result for year: €2,249k)	0.0029
PRORENDITA Zwei GmbH & Co. KG, Hamburg (equity: €15,992k; result for year: €2,249k)	0.0100
Relayr, Inc., Wilmington, Delaware[12] (equity: €---; result for year: €---)	11.5000
RMS Forest Growth International, L.P., Grand Cayman, Cayman Islands[8] (equity: €102,763k; result for year: –€14,282k)	43.4700

Company and registered seat	% share of capital
Solarpark 1000 Jahre Fürth GmbH & Co. KG, Düsseldorf (equity: €664k; result for year: €71k)	0.9091
T&R GP Management GmbH, Bonn (equity: €27k; result for year: €2k)	10.0020
T&R Investment GmbH & Co KG, Bonn (equity: €350,120k; result for year: –€102k)	9.9980
T&R MLP GmbH, Bonn (equity: €25k; result for year: €0k)	10.0020
T&R Real Estate GmbH, Bonn (equity: €140,872k; result for year: €0k)	10.0020
Umspannwerk Hellberge GmbH & Co. KG, Treuenbrietzen (equity: –€1,908k; result for year: –€134k)	6.9000
welivit TOP SOLAR GmbH & Co. KG, Düsseldorf (equity: €80k; result for year: €32k)	0.0000

1 Not currently utilised.
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 financial year 2016, to avail itself of the relevant provision exempting it from preparing annual financial statements.
3 This fully consolidated German subsidiary intends to fulfil the conditions required in Section 264 (3) of the German Commercial Code (HGB) and, in the financial year 2016, to avail itself of the relevant provision exempting it from preparing annual financial statements.
4 Control pursuant 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 significant influence, as there are no close links with Munich Re of the kind defined in IAS 28.6.
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.
8 No control and/or no significant interest, as it is a purely financial investment under the managerial responsibility of an external asset manager.
9 Significant influence owing to reduced voting power.
10 No significant influence because, under the articles of association, statutes or other agreement, all key decisions regarding the company's financial and operating policy are subject to a quorum which cannot be attained by the majority shareholder without the non-controlling shareholders.
11 Munich Reinsurance Company or one of its consolidated subsidiaries is a fully liable party in this company.
12 This company is not required to prepare or disclose financial statements. Accordingly, we make use of the option to exempt this company in accordance with Section 313 (3), sentence 5, of the German Commercial Code, and forgo the disclosures on equity and the result for the year.

Drawn up and released for publication,
Munich, 6 March 2017.

The Board of Management

The following is a translation of the auditor's opinion in respect of the original German consolidated financial statements and combined management report for the Company and the Group

Auditor's report

We have audited the consolidated financial statements prepared by Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München, Munich, comprising the consolidated balance sheet, the consolidated income statement, the statement of recognised income and expense, the Group statement of changes in equity, the consolidated cash flow statement and the notes to the consolidated financial statements, together with the combined management report for the financial year from 1 January to 31 December 2016. The preparation of the consolidated financial statements and the combined management report in accordance with IFRS, as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315a (1) of the German Commercial Code (HGB) are the responsibility of the Company's Board of Management. Our responsibility is to express an opinion on the consolidated financial statements and on the combined management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with Section 317 of the German Commercial Code (HGB) and German generally accepted standards for the audit of financial statements promulgated by the Institute of Public Auditors in Germany (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the combined management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the combined management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by the Board of Management, as well as evaluating the overall presentation of the consolidated financial statements and combined management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRS, as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315a (1) of the German Commercial Code and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The combined management report is consistent with the consolidated financial statements , complies with statutory provisions, and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Munich, 7 March 2017

KPMG Bayerische Treuhandgesellschaft
Aktiengesellschaft Wirtschaftsprüfungsgesellschaft
Steuerberatungsgesellschaft

Dr. Ellenbürger
Wirtschaftsprüfer
(German public
auditor)

Lippl
Wirtschaftsprüferin
(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 the Company 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, 14 March 2017

Imprint/Service

Münchener Rückversicherungs-Gesellschaft
Königinstrasse 107
80802 München
Germany
www.munichre.com

www.twitter.com/munichre
www.munichre.com/facebook

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.

Any description in this document is for general information purposes only and does not constitute an offer to sell or a solicitation of an offer to buy any product.

Responsible for content
Financial and Regulatory Reporting
Group Communications

Editorial deadline:
1 March 2017
Online publication date:
15 March 2017
Print publication date:
3 April 2017

Picture credits
Andreas Pohlmann

Printed by
Eberl Print GmbH
Kirchplatz 6
87509 Immenstadt
Germany

The official German original of this report is also available from the Company. In addition, you can find our Annual Report and interim reports, along with further information about Munich Re, on the internet at www.munichre.com.

Service for private investors
Alexander Rappl
Tel.: +49 89 3891-2255
Fax: +49 89 3891-4515
shareholder@munichre.com

Service for investors and analysts
Christian Becker-Hussong
Tel.: +49 89 3891-3910
Fax: +49 89 3891-9888
ir@munichre.com

Service for media
Johanna Weber
Tel.: +49 89 3891-2695
Fax: +49 89 3891-3599
presse@munichre.com

www.munichre.com/geschaeftsbericht2016

www.munichre.com/annualreport2016

FSC
www.fsc.org
MIX
Paper from responsible sources
FSC® C002727

Greenhouse gas emissions from paper production for this annual report are offset through Munich Re's carbon-neutral strategy.

Quarterly figures

		31.12.2016	30.9.2016	30.6.2016	31.3.2016
Balance sheet					
Investments (incl. insurance-related investments)	€m	228,974	231,546	228,098	223,873
Equity	€m	31,785	32,355	32,012	31,794
Net technical provisions	€m	202,240	202,715	200,053	196,836
Balance sheet total	€m	267,805	271,770	268,482	276,516
Shares					
Share price	€	179.65	166.00	150.25	178.75
Munich Reinsurance Company's market capitalisation	€bn	28.9	26.7	24.2	29.8
Other					
Combined ratio					
Reinsurance property-casualty	%	95.7	93.7	94.3	88.4
ERGO Property-casualty Germany	%	97.0	96.0	95.9	98.6
ERGO International	%	99.0	98.5	98.5	93.2
Munich Health	%	98.5	99.3	100.8	100.2
Number of staff		**43,428**	**43,880**	**43,761**	**43,686**

€m	Total	Q4 2016	Q3 2016	Q2 2016	Q1 2016
Gross premiums written	**48,851**	**12,070**	**12,344**	**11,928**	**12,511**
1. Earned premiums					
Gross	48,664	12,524	12,290	12,165	11,685
Ceded	-1,546	-440	-406	-357	-342
Net	47,118	12,084	11,884	11,808	11,342
2. Income from technical interest	6,490	1,548	1,621	1,810	1,511
3. Expenses for claims and benefits					
Gross	-39,167	-9,894	-9,953	-10,154	-9,166
Ceded share	669	161	227	84	197
Net	-38,498	-9,733	-9,726	-10,070	-8,969
4. Operating expenses					
Gross	-12,655	-3,489	-3,061	-3,107	-2,998
Ceded share	360	114	99	89	58
Net	-12,295	-3,375	-2,962	-3,018	-2,940
5. Technical result (1–4)	**2,815**	**525**	**816**	**529**	**945**
6. Investment result	**7,567**	**1,625**	**1,619**	**2,750**	**1,572**
Thereof:					
Income from associates accounted for using the equity method	121	22	20	77	2
7. Insurance-related investment result	326	267	237	31	-208
8. Other operating income	744	234	154	175	181
9. Other operating expenses	-938	-280	-192	-212	-254
10. Deduction of income from technical interest	-6,490	-1,548	-1,621	-1,810	-1,511
11. Non-technical result (6–10)	**1,210**	**297**	**198**	**933**	**-219**
12. Operating result	**4,025**	**823**	**1,014**	**1,463**	**726**
13. Other non-operating result	-437	-123	-112	-120	-82
14. Impairment losses on goodwill	-28	-19	0	-9	0
15. Net finance costs	-219	-57	-54	-58	-51
16. Taxes on income	-760	-137	-164	-302	-157
17. Consolidated result	**2,581**	**486**	**684**	**974**	**436**
Thereof:					
Attributable to Munich Reinsurance Company equity holders	2,580	491	685	974	430
Attributable to non-controlling interests	1	-5	-1	0	6

€	Total	Q4 2016	Q3 2016	Q2 2016	Q1 2016
Earnings per share	**16.13**	**3.12**	**4.30**	**6.05**	**2.65**

Important dates 2017

15 March 2017
Balance sheet press conference
for 2016 financial statements

26 April 2017
Annual General Meeting

9 May 2017
Quarterly Statement as at 31 March 2017

9 August 2017
Half-Year Financial Report as at 30 June 2017

9 November 2017
Quarterly Statement as at 30 September 2017

Important dates 2018

15 March 2018
Balance sheet press conference
for 2017 financial statements

25 April 2018
Annual General Meeting

8 May 2018
Quarterly Statement as at 31 March 2018

8 August 2018
Half-Year Financial Report as at 30 June 2018

7 November 2018
Quarterly Statement as at 30 September 2018

Münchener Rückversicherungs-Gesellschaft
Königinstrasse 107, 80802 München, Germany

Order number 302-08982